

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**Amendment No. 4
to
FORM F-4
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

UBS Group AG

(Exact Name of Registrant as Specified in its Charter)

Switzerland
(State or other jurisdiction of
incorporation or organization)

6021
(Primary Standard Industrial
Classification Code Number)

Not Applicable
(IRS Employer
Identification Number)

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Approximate date of commencement of proposed sale of the securities to the public: As soon as practicable after the effectiveness of this registration statement and upon completion of the merger described in the enclosed prospectus.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the U.S. Securities Act, check the following box and list the U.S. Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the U.S. Securities Act, check the following box and list the U.S. Securities Act registration statement number of the earlier effective registration statement for the same offering.

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

U.S. Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer)

U.S. Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the U.S. Securities Act of 1933.

Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards[†] provided pursuant to Section 7(a)(2)(B) of the U.S. Securities Act.

[†] The term 'new or revised financial accounting standard' refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the U.S. Securities Act, or until this registration statement shall become effective on such date as the U.S. Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

THE INFORMATION CONTAINED IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE U.S. SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY JURISDICTION IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL.

PRELIMINARY — SUBJECT TO COMPLETION — DATED JUNE 9, 2023

PROSPECTUS OF UBS GROUP AG



MERGER BETWEEN UBS GROUP AG AND CREDIT SUISSE GROUP AG

On March 19, 2023, UBS Group AG (which we refer to as “UBS Group AG”, “we” or “us”) and Credit Suisse Group AG (which we refer to as “Credit Suisse”) entered into a Merger Agreement (which, as amended on April 6, 2023 and May 22, 2023 and as it may be amended from time to time, we refer to as the “merger agreement”) that provides for the acquisition of Credit Suisse by UBS Group AG. On the terms and subject to the conditions set forth in the merger agreement and in accordance with applicable provisions of the Swiss Federal Act on Mergers, Demergers, Conversion and Transfer of Assets and Liabilities and that certain Ordinance on Additional Liquidity Assistance Loans and the Granting of Federal Default Guarantees for Liquidity Assistance Loans from the Swiss National Bank to Systemically Important Banks dated March 16, 2023 and amended by the Swiss Federal Council on March 19, 2023 (which we refer to as the “Special Ordinance”), Credit Suisse will merge with and into UBS Group AG with UBS Group AG being the absorbing company which will continue to operate and Credit Suisse being the absorbed company which will cease to exist (the “transaction”). Upon completion of the transaction (which we refer to as “completion”), each registered ordinary Credit Suisse share with a nominal value of CHF 0.04 (which we refer to as a “Credit Suisse Ordinary Share” and collectively, the “Credit Suisse Ordinary Shares”) and each Credit Suisse American Depositary Share representing a beneficial interest in one Credit Suisse Ordinary Share (which we refer to as a “Credit Suisse ADS” and, collectively, the “Credit Suisse ADSs”) issued and outstanding immediately prior to completion will entitle its holder to receive, subject to the payment of certain fees to the depository of the Credit Suisse ADSs in the case of Credit Suisse ADSs, the merger consideration (which we refer to as the “merger consideration”) consisting of 1/22.48 registered ordinary shares of UBS Group AG, each of which has a nominal value of USD 0.10 (each of which we refer to as a “UBS Group AG Share” and, collectively, the “UBS Group AG Shares”).

The merger consideration is fixed and will not be adjusted to reflect changes in the price of UBS Group AG Shares, Credit Suisse Ordinary Shares or Credit Suisse ADSs prior to completion. UBS Group AG Shares are currently traded on the New York Stock Exchange (which we refer to as the “NYSE”) under the ticker symbol “UBS” and on the SIX Swiss Exchange (which we refer to as the “SIX”) under the ticker symbol “UBSG.” Credit Suisse ADSs are currently traded on the NYSE under the ticker symbol “CS” and Credit Suisse Ordinary Shares are currently traded on the SIX under the ticker symbol “CSGN.” The UBS Group AG Shares that Credit Suisse shareholders will receive in connection with the transaction are treasury shares and are approved for listing on the NYSE and on the SIX. Based on the number of UBS Group AG Shares, Credit Suisse Ordinary Shares and Credit Suisse ADSs outstanding on June 6, 2023 and the closing price of UBS Group AG Shares on the NYSE on June 8, 2023, upon completion, we expect that former Credit Suisse shareholders would receive approximately 178,031,943 UBS Group AG Shares in the aggregate, with an implied aggregate value of approximately \$3,605,146,846, and would own approximately 5.1% of the outstanding UBS Group AG Shares and persons who were holders of UBS Group AG Shares immediately prior to completion would own approximately 94.9% of the outstanding UBS Group AG Shares.

Pursuant to the Special Ordinance, the transaction will be implemented without the need for the approval of the shareholders of UBS Group AG or Credit Suisse. Accordingly, there will be no meeting of UBS Group AG shareholders and no meeting of Credit Suisse shareholders for purposes of voting on the approval of the merger agreement or the transaction. No shareholder action is required to effect the transaction and no shareholder action is sought for the transaction. **We are not asking you for a proxy and you are requested not to send us a proxy.**

This prospectus includes important business and financial information about UBS Group AG and Credit Suisse from reports UBS Group AG and Credit Suisse filed with the U.S. Securities and Exchange Commission, including the information set forth in the UBS Group AG SEC Filings and the Credit Suisse SEC Filings. For details on how we use these reports to provide information, please see the section of this prospectus entitled “*Where You Can Find Additional Information*” beginning on page 109. **We urge you to review this prospectus carefully, in particular, the “Risk Factors” section beginning on page 24 for a discussion of risks relevant to the transaction.**

Neither the U.S. Securities and Exchange Commission nor any state securities commission has approved or disapproved of the merger agreement, the transaction or any of the other transactions described in this prospectus or determined if this prospectus is accurate or complete. Any representation to the contrary is a criminal offense.

This prospectus is dated [], 2023.

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ABOUT THIS PROSPECTUS

This prospectus, which forms part of a registration statement on Form F-4 (File No.333-271453) filed with the SEC by UBS Group AG, constitutes a prospectus of UBS Group AG under Section 5 of the U.S. Securities Act of 1933, as amended (which we refer to as the “U.S. Securities Act”) with respect to the UBS Group AG Shares to be received by the Credit Suisse shareholders in the transaction. The registration statement, including the attached exhibits, contains additional relevant information about UBS Group AG and the UBS Group AG Shares. The rules and regulations of the SEC allow UBS Group AG to omit certain information included in the registration statement from this prospectus.

We are not incorporating by reference any filings made by UBS Group AG or Credit Suisse with the SEC into this prospectus. Rather, in order to provide investors with information about UBS Group AG and Credit Suisse, we are including in this prospectus a number of reports prepared by UBS Group AG and Credit Suisse that have been filed with the SEC. For details on how we use these reports to provide information, see the section of this prospectus entitled “*Where You Can Find Additional Information*” beginning on page 109.

Information concerning UBS Group AG contained in this prospectus has been provided by UBS Group AG, and information concerning Credit Suisse contained in this prospectus has been provided by Credit Suisse.

No one has been authorized to provide you with information that is different from that contained in this prospectus. This prospectus is dated [], 2023. The information contained in this prospectus is accurate only as of that date. The distribution of UBS Group AG Shares pursuant to the merger agreement will not create any implication to the contrary.

Unless otherwise specified, currency amounts referenced in this prospectus are in U.S. dollars.

UBS Group AG has not taken any action that would permit the offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities described herein and the distribution of this prospectus outside the United States.

Presentation of Financial Information

The UBS Group AG SEC Filings included in this prospectus contain the audited consolidated balance sheets of UBS Group AG and its subsidiaries and UBS AG and its subsidiaries as of December 31, 2022 and 2021 and the related consolidated income statements, statements of comprehensive income, statements of changes in equity and statements of cash flows for each of the three years in the period ended December 31, 2022, and the unaudited consolidated balance sheets of UBS Group AG and its subsidiaries as of the quarters ended March 31, 2023 and December 31, 2022, and the related consolidated income statements and statements of comprehensive income for the quarters ended March 31, 2023, December 31, 2022 and March 31, 2022, and the related statements of changes in equity and statements of cash flows for the quarters ended March 31, 2023 and 2022, in each case, prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (“IFRS”) (which financial statements are referred to in this prospectus as the “UBS consolidated financial statements”).

The Credit Suisse SEC Filings included in this prospectus contain the audited consolidated balance sheets of Credit Suisse and its subsidiaries and Credit Suisse AG and its subsidiaries as of December 31, 2022 and 2021 and the related consolidated statements of operations, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 31, 2022, prepared in accordance with U.S. generally accepted accounting principles (“U.S. GAAP”) (which financial statements are referred to in this prospectus as the “Credit Suisse consolidated financial statements”), and unaudited financial information of Credit Suisse and

its subsidiaries as of and for the three months ended March 31, 2023, including comparative financial information as of and for the three months ended December 31, 2022 and March 31, 2022, and unaudited financial information of Credit Suisse AG and its subsidiaries as of and for the three months ended March 31, 2023, including comparative financial information as of December 31, 2022 and as of and for the three months ended March 31, 2022 (the “Credit Suisse 1Q23 unaudited financial information”). Credit Suisse’s independent registered public accounting firm has not completed a review of the Credit Suisse 1Q23 unaudited financial information. Any subsequent completion of a review may result in changes to that information.

Unless indicated otherwise, financial data with respect to UBS Group AG presented in this prospectus has been taken from the UBS consolidated financial statements and financial data with respect to Credit Suisse presented in this prospectus has been taken from the Credit Suisse consolidated financial statements and the Credit Suisse 1Q23 unaudited financial information.

This prospectus also contains the unaudited *pro forma* condensed combined financial information of UBS Group AG as of and for the year ended December 31, 2022 after giving effect to the transaction, referred to in this prospectus as “*pro forma* financial information.” See the section of this prospectus entitled “*Unaudited Pro Forma Condensed Combined Financial Information*” beginning on page 76. The financial information set forth in this prospectus has been rounded for ease of presentation. Accordingly, in certain cases, the sum of the numbers in a column in a table may not conform to the total figure given for that column.

For additional information on the presentation of financial information in this prospectus, see the UBS consolidated financial statements and the Credit Suisse consolidated financial statements, in each case, included in this prospectus.

FREQUENTLY USED TERMS

Certain terms that are defined in and frequently used throughout this prospectus may be helpful for you to have in mind at the outset. Unless otherwise specified or if the context so requires, the following terms have the meanings set forth below for purposes of this prospectus:

- “Code” refers to the U.S. Internal Revenue Code of 1986, as amended.
- “Combined Group” refers to UBS Group AG and its subsidiaries, including Credit Suisse and its subsidiaries, following completion.
- “completion” refers to the completion of the transaction.
- “completion date” refers to the date on which completion occurs.
- “Credit Suisse” refers to Credit Suisse Group AG, a corporation limited by shares (*Aktiengesellschaft*) according to Art. 620 et seqq. of the Swiss Code of Obligations, incorporated and domiciled in Switzerland and registered in the Commercial Register of the Canton of Zurich under the no. CHE-105.884.494.
- “Credit Suisse Annual Report” refers to the Credit Suisse and Credit Suisse AG Annual Report on Form 20-F for the fiscal year ended December 31, 2022 filed with the SEC on March 14, 2023 and included in Annex C of this prospectus.
- “Credit Suisse ADSs” refers to the American depositary shares of Credit Suisse, each of which represents a beneficial interest in one Credit Suisse Ordinary Share.
- “Credit Suisse board of directors” refers to the board of directors of Credit Suisse.
- “Credit Suisse Cash Awards” refers to all cash-based retention or incentive awards outstanding under any Credit Suisse Cash Plan.
- “Credit Suisse Cash Plans” refers to any employee incentive plan operated by Credit Suisse or any individual retention or incentive agreement with an employee under which, in each case, Credit Suisse Cash Awards have been granted.
- “Credit Suisse Depositary” refers to The Bank of New York Mellon, a New York banking corporation.
- “Credit Suisse Depositary Agreement” refers to that certain Amended and Restated Deposit Agreement, dated as of November 22, 2016, by and between Credit Suisse, The Bank of New York Mellon and all the owners and holders of Credit Suisse ADSs thereof, as amended.
- “Credit Suisse Equity Awards” refers to any equity awards denominated in Credit Suisse Ordinary Shares outstanding under any Credit Suisse Incentive Plan.
- “Credit Suisse Group” refers to Credit Suisse and its subsidiaries.
- “Credit Suisse Incentive Plans” refers to the Credit Suisse Group AG Master Share Plan, any employee incentive plan operated by Credit Suisse and any individual retention or incentive agreement with an employee.
- “Credit Suisse Ordinary Shares” refers to the registered ordinary shares of Credit Suisse, nominal value of CHF 0.04 per share.
- “Credit Suisse SEC Filings” refers to (1) the Credit Suisse Annual Report included in Annex C of this prospectus, and (2) (a) Credit Suisse’s Report of Foreign Private Issuer on Form 6-K filed with the SEC on April 4, 2023, (b) Credit Suisse’s Report of Foreign Private Issuer on Form 6-K (Accession No. 0001370368-23-000042) filed with the SEC on April 24, 2023 and (c) Credit Suisse’s Report of Foreign Private Issuer on Form 6-K (Accession No. 0001370368-23-000052) filed with the SEC on May 31, 2023, in each case, included in Annex D of this prospectus.
- “Credit Suisse Shares” refers, collectively, to Credit Suisse Ordinary Shares and Credit Suisse ADSs.

- “Credit Suisse shareholders” refers, collectively, to registered holders of Credit Suisse Ordinary Shares and registered holders of Credit Suisse ADSs.
- “ELA+” refers to additional liquidity-assistance loans by the SNB that are granted in addition to the emergency liquidity assistance loans and are secured by preferential rights in bankruptcy proceedings.
- “end date” refers to December 31, 2023.
- “EU” refers to the European Union.
- “Exchange Agent” refers to UBS AG.
- “exchange ratio” refers to 1/22.48.
- “FINMA” refers to the Swiss Financial Market Supervisory Authority FINMA.
- “FINMA Bail-In Measures Condition” means the condition to completion set forth in the merger agreement that, after the signing of the merger agreement, FINMA has not, with respect to either UBS Group AG or Credit Suisse, ordered any bail-in measures including converting debt capital into equity capital or the reduction (“write-down”) of claims according to art. 48-50 of the Ordinance of the Swiss Financial Market Supervisory Authority on the Insolvency of Banks and Securities Firms.
- “FTC” refers to the United States Federal Trade Commission.
- “HSR Act” refers to the Hart-Scott-Rodino Antitrust Improvements Act of 1976.
- “IFRS” means the International Financial Reporting Standards as issued by the International Accounting Standards Board.
- “IRS” refers to the U.S. Internal Revenue Service.
- “IT” refers to information technology.
- “Loss Protection Agreement” refers to the Loss Protection Agreement, dated June 9, 2023, by and between the Swiss Confederation and UBS Group AG, as it may be amended from time to time. The Loss Protection Agreement is attached as exhibit 10.1 to the registration statement of which this prospectus constitutes a part.
- “Merger Act” refers to the Swiss Federal Act on Mergers, Demergers, Conversion and Transfer of Assets and Liabilities.
- “merger agreement” refers to the Merger Agreement, dated as of March 19, 2023, by and between UBS Group AG and Credit Suisse, as amended on April 6, 2023 and May 22, 2023 and as it may be amended from time to time. The merger agreement is attached as exhibit 2.1 to the registration statement of which this prospectus constitutes a part.
- “NYSE” refers to the New York Stock Exchange.
- “Public Liquidity Backstop” or “PLB” refers to the liquidity-assistance loans with a default guarantee that go beyond the additional liquidity assistance loans and are secured by preferential rights in bankruptcy proceedings and a federal default guarantee.
- “SIX” refers to the SIX Swiss Exchange.
- “SEC” refers to the U.S. Securities and Exchange Commission.
- “SNB policy rate” refers to the policy interest rate as published by the Swiss National Bank from time to time, which is available at www.snb.ch.
- “Special Ordinance” refers to that certain Ordinance on Additional Liquidity Assistance Loans and the Granting of Federal Default Guarantee for PLB Liquidity Assistance Loans from the Swiss National Bank to Systemically Important Banks dated March 16, 2023 and amended by the Swiss Federal Council on March 19, 2023.
- “trading day” refers to any day when the SIX and the NYSE are scheduled to be open for trading for their respective regular trading sessions.

- “transaction” refers to the merger of Credit Suisse with and into UBS Group AG, with UBS Group AG being the absorbing company which will continue to operate and Credit Suisse being the absorbed company which will cease to exist.
- “Treasury Regulations” refers to the U.S. Treasury regulations promulgated under the Code.
- “UBS Group” refers to UBS Group AG and its consolidated subsidiaries.
- “UBS Group AG Annual Report” refers to UBS Group AG’s Annual Report on Form 20-F for the fiscal year ended December 31, 2022 filed with the SEC on March 6, 2023 and included in Annex A of this prospectus.
- “UBS Group AG board of directors” refers to the board of directors of UBS Group AG.
- “UBS Group AG” refers to UBS Group AG, a corporation limited by shares (*Aktiengesellschaft*) according to Art. 620 et seqq. of the Swiss Code of Obligations, incorporated and domiciled in Switzerland and registered in the Commercial Register of the Canton of Zurich under the no. CHE-395.345.924.
- “UBS Group AG Shares” refers to the registered ordinary shares of UBS Group AG, nominal value of USD 0.10 per share.
- “UBS Group AG shareholders” refers to the holders of UBS Group AG Shares.
- “UBS Group AG SEC Filings” refers to (1) the UBS Group AG Annual Report included in Annex A of this prospectus, and (2) (a) UBS Group AG’s Report of Foreign Private Issuer on Form 6-K filed with the SEC on March 29, 2023, (b) UBS Group AG’s Report on Foreign Private Issuer on Form 6-K filed with the SEC on April 24, 2023, (c) UBS Group AG’s Report of Foreign Private Issuer on Form 6-K (Accession No. 0001610520-23-000078) filed with the SEC on April 25, 2023 and (d) UBS Group AG’s Report on Foreign Private Issuer on Form 6-K filed with the SEC on May 9, 2023, in each case, included in Annex B of this prospectus.
- “U.S. Exchange Act” refers to the U.S. Securities Exchange Act of 1934, as amended.
- “U.S. GAAP” refers to U.S. generally accepted accounting principles.
- “U.S. Holder” refers to a beneficial owner of Credit Suisse Ordinary Shares and Credit Suisse ADSs that is for U.S. federal income tax purposes (1) an individual citizen or resident of the United States, (2) a corporation, or other entity treated as a corporation for U.S. federal income tax purposes, organized in or under the laws of the United States or any state thereof or the District of Columbia, (3) a trust if (a) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust or (b) such trust has a valid election in effect to be treated as a U.S. person for U.S. federal income tax purposes or (4) an estate, the income of which is subject to U.S. federal income tax, regardless of its source.
- “U.S. Securities Act” refers to the U.S. Securities Act of 1933, as amended.

All brands, unless otherwise noted, referred to herein are trademarks owned or licensed by UBS Group or Credit Suisse Group, as applicable.

QUESTIONS AND ANSWERS

The following are brief answers to certain questions that you, as a Credit Suisse shareholder, may have regarding the transaction. You are urged to carefully read this prospectus and the other documents referred to in this prospectus in their entirety because this section may not provide all the information that is important to you regarding these matters. Please refer to the section of this prospectus entitled “Prospectus Summary” beginning on page 12 for a summary of important information regarding the merger agreement and the transaction. Additional important information is contained in the UBS Group AG SEC Filings and the Credit Suisse SEC Filings. For further information about UBS Group AG and Credit Suisse, see the section of this prospectus entitled “Where You Can Find Additional Information” beginning on page 109.

Q: What is the purpose of this prospectus?

A: This prospectus relates to the UBS Group AG Shares to be received by Credit Suisse shareholders in the contemplated acquisition of Credit Suisse by UBS Group AG. On March 19, 2023, UBS Group AG and Credit Suisse entered into the merger agreement which provides for the acquisition of Credit Suisse by UBS Group AG. Pursuant to the merger agreement and in accordance with applicable provisions of the Merger Act and the Special Ordinance, Credit Suisse will merge with and into UBS Group AG with UBS Group AG being the absorbing company to continue to operate following completion and Credit Suisse being the absorbed company which will cease to exist upon completion. The merger agreement, which governs the terms and conditions of the transaction, is described in this prospectus and is incorporated by reference into this prospectus.

This prospectus is only to provide you information regarding the transaction. Your vote is not required or sought in connection with the transaction. **You are not being asked for a proxy, and you are requested not to send a proxy.**

Q: Are shareholder approvals required for the transaction?

A: Pursuant to the Special Ordinance, the transaction will be implemented without the need for the approval of UBS Group AG shareholders or Credit Suisse shareholders. Therefore, there will be no Credit Suisse shareholders meeting or UBS Group AG shareholders meeting for purposes of voting on the approval of the merger agreement or the transaction and your vote is not required in connection with the transaction. **You are not being asked for a proxy, and you are requested not to send a proxy.**

Q: What will Credit Suisse shareholders receive for their Credit Suisse Shares upon completion?

A: Upon completion, each Credit Suisse Share issued and outstanding immediately prior to the completion will entitle its holder to receive, subject to the payment of certain fees to the Credit Suisse Depository in the case of Credit Suisse ADSs, the merger consideration consisting of 1/22.48 UBS Group AG Shares, as described in the section of this prospectus entitled “*The Merger — Merger Consideration*” beginning on page 42.

Each Credit Suisse shareholder will receive cash in lieu of any fractional UBS Group AG Shares that such stockholder would otherwise receive in the transaction. For details, please see the section in this prospectus entitled “*The Merger Agreement — No Fractional UBS Group AG Shares*” beginning on page 66.

Note that if you hold Credit Suisse ADSs, the Credit Suisse Depository may charge you certain fees in connection with the transaction. Specifically, there is a fee of \$0.04 per Credit Suisse ADS (or portion thereof) in connection with the cancellation of the Credit Suisse ADSs and the replacement of such Credit Suisse ADSs with UBS Group AG Shares. Please refer to the Credit Suisse Depository Agreement for additional information.

Q: When will Credit Suisse shareholders receive their merger consideration?

A: Credit Suisse shareholders that hold their Credit Suisse Shares in book-entry or other non-certificated form will receive their merger consideration on or shortly after the completion date.

Holders of certificated Credit Suisse Ordinary Shares must surrender the physical certificates representing such Credit Suisse Ordinary Shares to the Exchange Agent together with supporting information reasonably requested by UBS Group AG after the closing date in order to receive the merger consideration in the form of UBS Group AG Shares.

Holders of certificated Credit Suisse ADSs must surrender the physical certificates representing such Credit Suisse ADSs to the Credit Suisse Depository within ninety (90) days after the closing date in order to receive the merger consideration in the form of UBS Group AG Shares. After such date, the UBS Group AG Shares to which such Credit Suisse ADSs are exchangeable shall be sold by the Credit Suisse Depository and the cash proceeds of such unclaimed merger consideration will be paid to such former holder of Credit Suisse ADSs following the surrender of its certificate(s). Any former holder of Credit Suisse ADSs who has not surrendered its certificated Credit Suisse ADSs shall only claim payment of the merger consideration from the Credit Suisse Depository following the closing date, without any interest thereon.

Q: Is the exchange ratio subject to adjustment based on changes in the prices of UBS Group AG Shares, Credit Suisse Ordinary Shares or Credit Suisse ADSs?

A: For each Credit Suisse Share, Credit Suisse shareholders will receive, subject to the payment of certain fees to the Credit Suisse Depository in the case of Credit Suisse ADSs, 1/22.48 UBS Group AG Shares. The exchange ratio is fixed and will not be adjusted to reflect changes in the price of UBS Group AG Shares, Credit Suisse Ordinary Shares or Credit Suisse ADSs prior to completion. The market value of UBS Group AG Shares and the market value of Credit Suisse Ordinary Shares and Credit Suisse ADSs at completion may vary significantly from their respective values on the date that the merger agreement was executed or the date of this prospectus. Stock price changes may result from a variety of factors, including changes in UBS Group AG's or Credit Suisse's respective businesses, operations or prospects, regulatory considerations, and general business, market, industry or economic conditions. The exchange ratio will not be adjusted to reflect any such changes.

Based on the closing price of UBS Group AG Shares of \$18.20 on the NYSE on March 17, 2023, the last full trading day before the public announcement of the merger agreement, the implied value of the merger consideration to Credit Suisse shareholders was approximately \$0.81 per Credit Suisse Share. On June 8, 2023, the latest practicable trading day before the date of this prospectus, the closing price of UBS Group AG Shares was \$20.25 on the NYSE, and accordingly, the implied value of the merger consideration to Credit Suisse shareholders was approximately \$0.90 per Credit Suisse Share. Based on the number of UBS Group AG Shares, Credit Suisse Ordinary Shares and Credit Suisse ADSs outstanding on June 6, 2023 and the closing price of UBS Group AG Shares on the NYSE on June 8, 2023, upon completion, we expect that former Credit Suisse shareholders would receive approximately 178,031,943 UBS Group AG Shares in the aggregate with an implied aggregate value of approximately \$3,605,146,846.

Q: What equity stake will Credit Suisse shareholders hold in UBS Group AG immediately following the transaction?

A: Based on the number of UBS Group AG Shares and Credit Suisse Shares issued and outstanding on June 6, 2023, immediately after completion, former Credit Suisse shareholders are expected to own UBS Group AG Shares representing approximately 5.1% of the outstanding UBS Group AG Shares, and UBS Group AG shareholders immediately prior to completion are expected to own approximately 94.9% of the outstanding UBS Group AG Shares. The relative ownership interests of UBS Group AG shareholders and former Credit Suisse shareholders in UBS Group AG immediately following completion will depend on the number of UBS Group AG Shares and Credit Suisse Shares issued and outstanding immediately prior to completion.

Q: Will the UBS Group AG Shares to be delivered to Credit Suisse shareholders be publicly traded on an exchange?

A: Yes. The UBS Group AG Shares that Credit Suisse shareholders will receive in connection with the transaction are treasury shares and are approved for listing on the NYSE and on the SIX.

UBS Group AG Shares to be received by Credit Suisse shareholders in connection with the transaction will be freely transferable, except for UBS Group AG Shares received by any Credit Suisse shareholder deemed to be an “affiliate” of UBS Group AG for purposes of U.S. federal securities law. For more information, see the section entitled “*The Merger — Restrictions on Resales of UBS Group AG Shares Received in the Transaction*” beginning on page 55.

Q: Will Credit Suisse Ordinary Shares and Credit Suisse ADSs continue to be publicly traded following completion?

A: Credit Suisse Ordinary Shares are currently authorized for trading on the SIX under the ticker symbol “CSGN” and Credit Suisse ADSs are currently authorized for trading on the NYSE under the ticker symbol “CS”. Unless otherwise mandated by the NYSE or the SIX, respectively, at the opening of the first trading day following the entry of the transaction in the Swiss Federal Commercial Registry Office, the Credit Suisse ADSs currently listed on the NYSE will cease to be listed on the NYSE and will thereafter be deregistered under the U.S. Exchange Act, and the Credit Suisse Ordinary Shares currently listed on the SIX will cease to be listed on the SIX.

Q: May I transfer or sell my Credit Suisse Ordinary Shares or Credit Suisse ADSs prior to completion?

A: Yes, but only holders of Credit Suisse Ordinary Shares and Credit Suisse ADSs as of completion will become entitled to receive the merger consideration. If you transfer or otherwise sell your Credit Suisse Ordinary Shares or Credit Suisse ADSs prior to completion, you will not become entitled to receive the merger consideration by virtue of the transaction.

Q: Will Credit Suisse shareholders receive any consideration if the transaction is not completed?

A: If the transaction is not completed for any reason, Credit Suisse shareholders will not receive the merger consideration.

Q: Are there any risks that I should be aware of with respect to the transaction?

A: You should read and carefully consider the risk factors set forth in the section of this prospectus entitled “*Risk Factors*” beginning on page 24. You also should read and carefully consider the risk factors with respect to UBS Group AG and Credit Suisse that are contained under Part I, Item 3D, “*Risk Factors*” in the UBS Group AG Annual Report and Part I, Item 3D, “*Risk Factors*” in the Credit Suisse Annual Report.

Q. What material interests do Credit Suisse directors and executive officers have in the transaction?

A: The executive board members and directors of Credit Suisse have material interests in the merger that may be different from, or in addition to, the interests of Credit Suisse shareholders generally.

After completion, the Credit Suisse Equity Awards outstanding under the Credit Suisse Group AG Master Share Plan, any employee incentive plan operated by Credit Suisse or under any individual retention or incentive agreement with an employee (each of which we refer to as a “Credit Suisse Incentive Plan” and collectively the “Credit Suisse Incentive Plans”), including such awards held by executive board members of Credit Suisse, will be converted into a share award covering, or a right to receive consideration by reference to, UBS Group AG Shares, and will continue to remain outstanding in accordance with their current terms, including the current vesting schedule and existing performance conditions (subject to

amendments approved by UBS Group AG as are reasonably necessary to reflect the impact of the transaction). For a description of the treatment of the Credit Suisse Equity Awards and the Credit Suisse Incentive Plans, see the section of this prospectus entitled “*The Merger Agreement — Treatment of Credit Suisse Equity Awards*” beginning on page 66. Except as otherwise provided, all Credit Suisse awards, including cash awards, will continue to be governed by the same terms and conditions as were applicable to the applicable award immediately prior to the completion date.

Pursuant to the terms of those awards, including those held by executive board members, upon an involuntary termination (including an involuntary termination in connection with or following completion), the awards will continue to be settled or delivered on the existing schedule, subject to the terms and conditions of the award.

All members of the executive board have employment contracts with Credit Suisse that are valid until terminated. The standard notice period for termination of employment by either Credit Suisse or the respective executive board member is six months. Certain executive board members are subject to a non-compete period of up to 12 months and may be compensated for this period by mutual agreement. In the event of termination, there are no contractual provisions that allow for the payment of severance awards to executive board members beyond the regular compensation awarded during the notice period. There are no “single-trigger” severance payments in connection with the merger.

Certain executive board members and directors of Credit Suisse have had employment or directorship relationships with UBS Group AG in the past. These former employment or directorship relationships with UBS Group AG concern the following individuals: (i) Axel P. Lehmann (Chairman): Mr. Lehmann was a director at UBS (2009 – 2015), as well as an executive officer (2016 – 2021); (ii) Mr. Bianchi (Audit Committee Chair) was a managing director at UBS (2000 – 2009); (iii) Mr. Körner (CEO) was an executive officer at UBS (2009 – 2020); and (iv) Mr. Diethelm was an executive officer at UBS (2008 – 2022). Further details of the former roles of these individuals at UBS is disclosed in the 2022 Credit Suisse Annual Report.

Q: Will Credit Suisse shareholders be entitled to dissenters’ rights of appraisal?

A: No. There are no traditional dissenters’ rights under Swiss law. However, for business combinations effected in the form of a statutory merger and subject to Swiss law, such as the transaction, the Merger Act provides that, if the equity rights have not been adequately preserved or compensation payments in the transaction are not adequate, a shareholder may request the competent court to determine a reasonable amount of compensation payable to all shareholders. Any such determination will not impact the implementation of the merger or the receipt of the UBS Group AG Shares as merger consideration.

Q: When is the transaction expected to be completed?

A: UBS Group AG expects to complete the transaction as early as June 12, 2023, assuming the conditions to closing (described in the section of this prospectus entitled “*The Merger Agreement — Conditions to Completion*” beginning on page 67) are satisfied or waived (to the extent waivable) by UBS Group AG. However, UBS Group AG cannot predict the actual date on which the transaction will be completed, or if the transaction will be completed at all, because completion is subject to conditions and factors outside UBS Group AG’s control. For a summary of the conditions that must be satisfied (or, to the extent waivable, waived) prior to completion, see the section of this prospectus entitled “*The Merger Agreement — Conditions to Completion*” beginning on page 67.

Q: What are the material Swiss tax consequences of the transaction?

A: The exchange of Credit Suisse Shares for UBS Group AG Shares will not be subject to Swiss Withholding Tax (as defined in the section entitled “*The Merger — Material Swiss Tax Consequences*”). A holder of

Credit Suisse Shares who is not a resident of Switzerland for Swiss tax purposes, and who, during the applicable tax year, has not engaged in a trade or business carried on through a permanent establishment in Switzerland for tax purposes, will not be subject to any Swiss federal, cantonal or communal income tax as a result of the transaction. For a holder of Credit Suisse Ordinary Shares who is an individual resident in Switzerland for tax purposes and who holds Credit Suisse Ordinary Shares as a private investment, the exchange of Credit Suisse Ordinary Shares for UBS Group AG Shares should be tax neutral for the purposes of Swiss federal, cantonal and communal income tax, since the sum of the UBS Group AG share capital and capital contribution reserves after the transaction does not exceed the sum of the share capital and capital contribution reserves of Credit Suisse and UBS Group AG prior to the transaction on a cumulative basis. The consideration for Credit Suisse Ordinary Shares that do not entitle the holder to receive one full UBS Group AG Share (“Fractional Shares”) should constitute a tax-free capital gain (or non tax-deductible loss) for Swiss resident individual shareholders holding Credit Suisse Ordinary Shares as private investments. For a holder who holds Credit Suisse Ordinary Shares as part of a trade or business carried on in Switzerland, the exchange of Credit Suisse Ordinary Shares for UBS Group AG Shares is tax neutral for the purposes of Swiss federal, cantonal and communal income tax, provided that the relevant book value (and thus, tax book value) of the shares is maintained. Otherwise, a taxable gain or tax deductible loss for the purposes of Swiss federal, cantonal and communal income tax may arise. Cash payments for Fractional Shares in excess of the relevant tax book value of such Fractional Shares are included as taxable income in the relevant taxation period for purposes of Swiss federal, cantonal and communal individual or corporate income tax. Cash payments for Fractional Shares below the relevant tax book value of such Fractional Shares result in a tax deductible loss in the relevant taxation period for purposes of Swiss federal, cantonal and communal individual or corporate income tax. This taxation treatment also applies to Swiss resident private individuals who, for Swiss income tax purposes, qualify as “professional securities dealers” because of, among other things, frequent dealing, or leveraging their investments, in securities. Corporate taxpayers may benefit from taxation relief on capital gains realized upon the disposal of Credit Suisse Ordinary Shares (Beteiligungszug), provided such Credit Suisse Ordinary Shares were held for at least one year and the shareholder disposes of at least 10% of the share capital or 10% of the profit and reserves, respectively. Subsequent sales can be less than 10% of the nominal share capital in order to qualify for the participation relief, provided the fair market value of the Credit Suisse Ordinary Shares held as of the previous financial year end prior to this sale amounts to at least 1 million Swiss francs. See “*The Merger — Material Swiss Tax Consequences*” beginning on page 55 for more information.

Q: What are the material U.S. federal income tax consequences of the transaction?

A: The U.S. federal income tax consequences of the transaction to U.S. Holders depend on whether the transaction qualifies as a Reorganization (as defined in the section entitled “*The Merger — Material U.S. Federal Income Tax Consequences*”). To qualify as a Reorganization, the transaction must satisfy certain requirements, some of which are based on factual determinations and actions or events after the transaction, including events that are not within the control of UBS Group AG or Credit Suisse. **Due to significant factual uncertainties, no representation is made as to the U.S. federal income tax treatment of the transaction.** Completion is not conditioned on the transaction qualifying as a Reorganization or on the receipt of an opinion of counsel to that effect and neither UBS Group AG nor Credit Suisse has sought or received an opinion of counsel on the qualification of the transaction as a Reorganization. In addition, UBS Group AG and Credit Suisse have not sought and will not seek any ruling from the IRS regarding any matters relating to the transaction, and as a result, there can be no assurance that the IRS will not assert, or that a court would not sustain, a position that the transaction does not qualify as a Reorganization.

If the transaction qualifies as a Reorganization, upon exchanging Credit Suisse Shares for UBS Group AG Shares, a U.S. Holder generally will not recognize gain or loss, except with respect to any cash received in lieu of a fractional UBS Group AG Share. If a U.S. Holder holds 5% or more by vote or by value (within the meaning of Treasury Regulations Section 1.367(a)-3(b)(1)(i)) of UBS Group AG immediately following the transaction, depending on events after the transaction, it is possible that U.S. federal income tax

consequences differing from, and materially less favorable than, the consequences discussed in the preceding sentence may apply even if the transaction qualifies as a Reorganization, unless certain reporting requirements and other conditions are met. For additional discussion of these considerations, see the section entitled “*The Merger — Material U.S. Federal Income Tax Consequences — Tax Consequences if the Transaction Qualifies as a Reorganization.*”

If the transaction does not qualify as a Reorganization, the exchange of Credit Suisse Shares for UBS Group AG Shares will be a taxable transaction for U.S. federal income tax purposes. In general, a U.S. Holder will recognize capital gain or loss for U.S. federal income tax purposes on the exchange of Credit Suisse Shares for UBS Group AG Shares in an amount equal to the difference, if any, between (i) the sum of the fair market value of the UBS Group AG Shares received in the exchange on the date of the exchange and the amount of cash received in lieu of a fractional UBS Group AG Share and (ii) the U.S. Holder’s adjusted tax basis in the Credit Suisse Shares surrendered in the exchange.

The tax consequences of the transaction are complex and will depend on each U.S. Holder’s particular situation. In addition, U.S. Holders may be subject to state, local or non-U.S. tax laws that are not discussed in this prospectus. For a more detailed discussion of the material U.S. federal income tax consequences of the transaction, see the section entitled “*The Merger — Material U.S. Federal Income Tax Consequences*” beginning on page 60. U.S. Holders should consult their own tax advisors for a full understanding of the tax consequences to them of the transaction.

Q: What should I do now?

A: This prospectus is only to provide you information regarding the transaction. Your vote is not required or sought in connection with the transaction. **You are not being asked for a proxy, and you are requested not to send a proxy.**

You should read this prospectus carefully and in its entirety, including the information set forth in the UBS Group AG SEC Filings and the Credit Suisse SEC Filings that are included in this prospectus.

Q: How can I find more information about UBS Group AG or Credit Suisse?

A: You can find more information about UBS Group AG or Credit Suisse from various sources described in the section of this prospectus entitled “*Where You Can Find Additional Information*” beginning on page 109.

Q: Whom do I call if I have questions about the transaction?

A: If you have questions about the transaction, you may contact either UBS Group AG or Credit Suisse at the following addresses and telephone numbers, as applicable:

UBS Group AG
Investor Relations
Bahnhofstrasse 45, 8001
Zurich, Switzerland
Tel: +41 44 234 41 00

Credit Suisse Group AG
Paradeplatz 8, 8001
Zurich, Switzerland
Tel: +41 44 333 11 11

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and may not contain all of the information that might be important to you. UBS Group AG urges you to read carefully the remainder of this prospectus, including the UBS Group AG SEC Filings and the Credit Suisse SEC Filings. For further information about UBS Group AG and Credit Suisse, see the section of this prospectus entitled “Where You Can Find Additional Information” beginning on page 109. Each item in this summary includes a page reference to direct you to a more complete description of the topics presented in this summary.

Information about the Companies

UBS Group AG

*Bahnhofstrasse 45, 8001
Zurich, Switzerland
Tel: +41 44 234 11 11*

UBS Group is a leading and truly global wealth manager with focused asset management and investment banking capabilities, and the leading universal bank in Switzerland. UBS Group enables people, institutions and corporations to achieve their goals by providing financial advice and solutions. UBS Group has a capital-light, cash-generative and well-diversified business model, a strong culture, a balance sheet for all seasons, and a respected brand with over 160 years of history.

The operational structure of UBS Group is comprised of the Group Functions and four business divisions: Global Wealth Management, Personal & Corporate Banking, Asset Management and the Investment Bank. UBS Group sees joint efforts as key to its growth, both within and between business divisions. UBS Group employs approximately 72,500 employees (full-time equivalents) across 48 countries.

UBS Group AG is incorporated and domiciled in Switzerland as a corporation limited by shares (*Aktiengesellschaft*) and operates under Art. 620 et seqq. of the Swiss Code of Obligations. UBS Group AG Shares are currently traded on the NYSE under the ticker symbol “UBS” and on the SIX under the ticker symbol “UBSG.” UBS Group AG’s principal executive offices are located at Bahnhofstrasse 45, 8001 Zurich, Switzerland, and its telephone number is +41 44 234 11 11.

Additional information about UBS Group AG can be found on its website at <https://www.ubs.com>. The information contained in, or that can be accessed through, UBS Group AG’s website is not intended to be incorporated into this prospectus. For additional information about UBS Group AG, see the section of this prospectus entitled “Where You Can Find Additional Information” beginning on page 109.

Credit Suisse Group AG

*Paradeplatz 8, 8001
Zurich, Switzerland
Tel: +41 44 333 11 11*

Credit Suisse Group is one of the world’s leading financial services providers. Its strategy is built on its leading Wealth Management and Swiss Bank franchises, with strong Asset Management as well as Markets capabilities. Credit Suisse Group seeks to follow a balanced approach to wealth management, aiming to capitalize on both the large pool of wealth within mature markets as well as the significant growth in wealth in Asia Pacific and other emerging markets, while also serving key developed markets with an emphasis on Switzerland. The bank employs more than 45,000 people (full-time equivalents) on a consolidated basis.

Credit Suisse is incorporated and domiciled in Switzerland as a corporation limited by shares (*Aktiengesellschaft*) and operates under Art. 620 et seqq. of the Swiss Code of Obligations. American depositary shares of Credit Suisse (each representing a beneficial interest in one Credit Suisse Ordinary Share) are currently traded on the NYSE under the ticker symbol “CS” and Credit Suisse Ordinary Shares are currently traded on the SIX under the ticker symbol “CSGN”. Credit Suisse’s principal executive offices are located at Paradeplatz 8, 8001 Zurich, Switzerland and its telephone number is +41 44 333 11 11.

Additional information about Credit Suisse can be found on its website at <https://www.credit-suisse.com>. The information contained in, or that can be accessed through, Credit Suisse’s website is not intended to be incorporated into this prospectus. For additional information about Credit Suisse, see the section of this prospectus entitled “Where You Can Find Additional Information” beginning on page 109.

Risk Factors

You should carefully consider the risks that are described in the section of this prospectus entitled “Risk Factors” beginning on page 24.

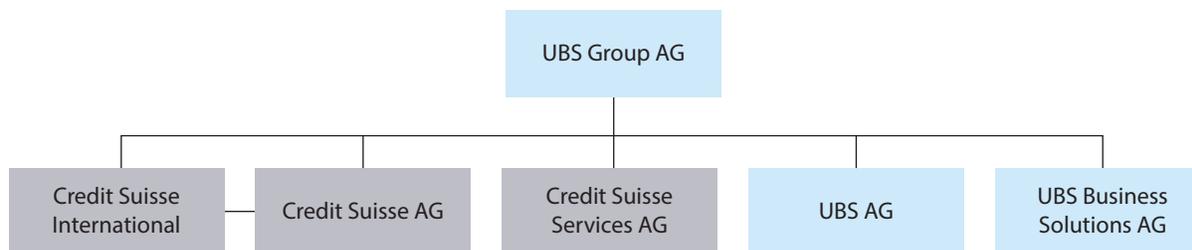
The Transaction and the Merger Agreement

The merger agreement provides that, upon the terms and subject to the conditions set forth therein, upon completion, Credit Suisse will merge with and into UBS Group AG, with UBS Group AG being the absorbing company which will continue to operate following completion and Credit Suisse being the absorbed company which will cease to exist upon completion. By operation of law, Credit Suisse’s assets, liabilities and contracts, as well as all of Credit Suisse’s rights and obligations under such contracts, will be transferred to UBS Group AG in their entirety. The following diagram illustrates the organizational structures of UBS Group AG and Credit Suisse prior to and immediately following the consummation of the transaction and as of the date of this prospectus.

Prior to the Transaction



Immediately Following the Consummation of the Transaction²



¹ Credit Suisse AG directly owns 97.59% and Credit Suisse Group AG directly owns 2.41% of total voting of Credit Suisse International.

² Following the transaction, Credit Suisse AG will continue to directly own 97.59%, and UBS Group AG will directly own 2.41%, of total voting of Credit Suisse International.

The terms and conditions of the transaction are contained in the merger agreement, which is described in this prospectus and is incorporated by reference into this prospectus. You are encouraged to read the merger agreement carefully, as it is the legal document that governs the transaction. All descriptions in this prospectus of the terms and conditions of the transaction are qualified by reference to the merger agreement. For additional information about the merger agreement, see the section of this prospectus entitled “*The Merger Agreement*” beginning on page 65.

Merger Consideration

Upon the terms and subject to the conditions set forth in the merger agreement, each Credit Suisse Share issued and outstanding immediately prior to completion will entitle its holder to receive, subject to the payment of certain fees to the Credit Suisse Depository in the case of Credit Suisse ADSs, the merger consideration consisting of 1/22.48 UBS Group AG Shares, as described in the section of this prospectus entitled “*The Merger — Merger Consideration*” beginning on page 42.

Each Credit Suisse shareholder will receive cash in lieu of any fractional UBS Group AG Shares that such stockholder would otherwise receive in the transaction. For details, please see the section in this prospectus entitled “*The Merger Agreement — No Fractional UBS Group AG Shares*” beginning on page 66.

Note that if you hold Credit Suisse ADSs, the Credit Suisse Depository may charge you certain fees in connection with the transaction. Specifically, there is a fee of \$0.04 per Credit Suisse ADS (or portion thereof) in connection with the cancellation of the Credit Suisse ADSs and the replacement of such Credit Suisse ADSs with UBS Group AG Shares. Please refer to the Credit Suisse Depository Agreement for additional information.

Treatment of Credit Suisse Equity Awards

After completion, all equity awards denominated in Credit Suisse Ordinary Shares (which we refer to as the “Credit Suisse Equity Awards”) outstanding under the Credit Suisse Group AG Master Share Plan, any employee incentive plan operated by Credit Suisse or under any individual retention or incentive agreement with an employee (each of which we refer to as a “Credit Suisse Incentive Plan” and collectively the “Credit Suisse Incentive Plans”) will (A) be converted into a share award covering, or a right to receive consideration by reference to, UBS Group AG Shares or (B) in relation to awards in the form of options or share appreciation rights, be converted into awards that pertain and apply to UBS Group AG Shares, and, in each case, to the extent legally permissible, will continue to remain outstanding in accordance with their current terms, including the current vesting schedule and existing performance conditions (subject to amendments approved by UBS Group AG as are reasonably necessary to reflect the impact of the transaction). We expect that Credit Suisse Equity Awards will be converted into a share award covering, or a right to receive consideration by reference to, UBS Group AG Shares using the same exchange ratio as the merger consideration. Any taxes, social security contributions or pension scheme contributions in connection with the settlement of the Credit Suisse Equity Awards, as applicable, will be deducted before the settlement with UBS Group AG Shares or cash.

To the fullest extent permitted by applicable law, the Credit Suisse board of directors will make all necessary adjustments to the Credit Suisse Equity Awards, the Credit Suisse Incentive Plans and/or all of the relevant governing documents to accomplish the foregoing and will exercise any and all discretion pursuant to the Credit Suisse Incentive Plans and relevant governing documents that no such Credit Suisse Equity Awards vest or become exercisable earlier than their scheduled vesting or exercise date by reason of the transaction and no restrictions on Credit Suisse Equity Awards will lapse. To the extent that, notwithstanding the foregoing, the Credit Suisse Equity Awards vest or become exercisable in connection with the transaction, the Credit Suisse board of directors will exercise any and all available discretion pursuant to the Credit Suisse Incentive Plans and

relevant governing documents such that (A) such Credit Suisse Equity Awards are prorated to reflect the unexpired portion of any vesting period, (B) any performance conditions applicable to such Credit Suisse Equity Awards are tested based on actual performance through the consummation of the transaction to the fullest extent practicable (and any determination made in respect of the satisfaction of such performance conditions is approved by UBS Group AG) and (C) no restrictions applicable to a Credit Suisse Equity Award lapse, and that any Credit Suisse Equity Awards exercised or vested will be settled by reference to and in the form of merger consideration so that the Credit Suisse Equity Award holders will receive, for each Credit Suisse Share, the merger consideration otherwise receivable by Credit Suisse shareholders.

For a description of the treatment of the Credit Suisse Equity Awards and the Credit Suisse Incentive Plans (each as defined below), see the section of this prospectus entitled “*The Merger Agreement — Treatment of Credit Suisse Equity Awards*” beginning on page 66.

Background and Reasons for the Transaction

On March 19, 2023, UBS Group AG and Credit Suisse executed the merger agreement shortly after the boards of directors of UBS Group AG and Credit Suisse each approved the merger agreement. The merger agreement was entered into under exceptional circumstances of volatile financial markets and the continued outflows and deteriorating overall financial position of Credit Suisse, in order to avert a failure of Credit Suisse and thus damage to the Swiss financial center and to global financial stability. To address matters relating to Credit Suisse (including the transaction between Credit Suisse and UBS Group AG), the Swiss Federal Council passed the Special Ordinance. For a description of factors considered by the UBS Group AG board of directors in reaching its decision and background on the transaction (including additional detail relating to the Special Ordinance), see the section of this prospectus entitled “*The Merger—Background and Reasons for the Transaction*” beginning on page 43.

Plans Following Completion

The UBS Group AG board of directors and the UBS Group AG executive board will hold overall responsibility for the Combined Group. The Combined Group will operate with five business divisions, seven functions and four regions, in addition to Credit Suisse AG. Each will be represented by a UBS Group AG executive board member, all of whom will report to UBS Group AG CEO Sergio P. Ermotti. Ulrich Körner, as Credit Suisse AG CEO, will become a member of the UBS Group AG executive board upon completion. Beatriz Martin Jimenez has been appointed Head Non-Core and Legacy and President EMEA Region and a member of the UBS Group AG executive board. Todd Tuckner became a member of the UBS Group AG executive board on May 9, 2023 and will take on the role of UBS Group AG Chief Financial Officer upon completion. Michelle Bereaux has been appointed Group Integration Officer and a member of the UBS Group AG executive board. Damian Vogel has been appointed as the Group Risk Control Head of Integration to lead risk control related integration activities and define the best possible set-up for UBS Group AG’s combined group risk control function.

This leadership team is expected to develop and implement the business and integration plans for the combined firm. These plans will include for each business division, non-core and legacy region and function defining the management structures below the Group Executive Board, detailed strategy and implementation plans, further alignment of risk, governance and policy frameworks and alignment of legal entity structure to the strategy. UBS Group AG also expects, among other things, to fully define the scope of covered assets in connection with the Loss Protection Agreement, conclude discussion of the separate arrangements with FINMA and to recommend to the UBS Group AG board of directors strategic options for the Combined Group’s Swiss business. The Loss Protection Agreement provides for comprehensive governance arrangements, such as the establishment of an oversight committee for those assets within the scope of the government guarantee, and the

Swiss Confederation is entitled to be represented at the oversight committee and has the right to make a request to UBS Group AG to revise plans for the management and disposal of the assets within the scope of the Loss Protection Agreement and to adjust its rights in the event of a breach of the Loss Protection Agreement by UBS Group AG.

Implementation of the post-merger integration plans is expected to take three to five years. UBS Group AG expects to conclude its plans for the Swiss business and discussions of the separate arrangements with FINMA in the third quarter of 2023 and to complete the detailed integration plans for each business division, including definition of non-core activities and cost reduction plans by the fourth quarter of 2023. The UBS Group AG board of directors expects that the combined Global Wealth Management and Asset Management businesses would have approximately USD 5 trillion in invested assets, significantly increasing their scale. The UBS Group AG board of directors also expects that the investment banking businesses of the Combined Group, excluding assets and liabilities intended to be designated as non-core, would represent less than 25% of the Combined Group's RWA. Management of UBS Group AG estimates that UBS Group AG would remain above its CET1 capital ratio guidance of 13% at completion, well above its current CET1 capital ratio requirement of 10.4%. Refer to "*Capital Management*" on pages 135-149 in the UBS Group AG Annual Report for additional information on the capital requirements currently applicable to UBS Group AG. As described in "*The Merger — Approvals Required for the Transaction*," FINMA ruled on adjustments to, and transitional measures for, certain prudential capital requirements, risk weighted assets measures, and other capital and liquidity requirements for the Combined Group. UBS Group AG will be subject to additional capital requirements as transitional measures are phased out over time. The amounts of such additional capital requirements are subject to future determination. In addition, subject to detailed and adjusted planning after completion, the management of UBS Group AG estimates that USD 8 billion of aggregate cost savings could be achieved compared to the estimated separate firm run rate by 2027 and that the transaction would be accretive to earnings per share by 2027. The UBS Group AG board of directors are considering all options for the Swiss banking units of the Combined Group and as of now no decision has been made on whether UBS Group AG and Credit Suisse will fully integrate into a single brand in Switzerland or on an international scale or if there will be additional spin-off of any material Credit Suisse business units.

For additional information, please see the section of this prospectus entitled "*The Merger — Plans Following Completion*" beginning on page 53 and the UBS Group AG SEC Filings, including (i) UBS Group AG's Report on Foreign Private Issuer on Form 6-K filed with the SEC on April 24, 2023 and (ii) UBS Group AG's Report on Foreign Private Issuer on Form 6-K filed with the SEC on May 9, 2023, in each case, included in Annex B of this prospectus.

Listing of UBS Group AG Shares

The UBS Group AG Shares that Credit Suisse shareholders will receive in connection with the transaction are treasury shares and are approved for listing on the NYSE and on the SIX.

Delisting and Deregistration of Credit Suisse ADSs and Credit Suisse Ordinary Shares

Unless otherwise mandated by the NYSE or the SIX, respectively, at the opening of the first trading day following the entry of the transaction in the Swiss Federal Commercial Registry Office, the Credit Suisse ADSs currently listed on the NYSE will cease to be listed on the NYSE and will thereafter be deregistered under the U.S. Exchange Act, and the Credit Suisse Ordinary Shares currently listed on the SIX will cease to be listed on the SIX. See the section of this prospectus entitled "*The Merger — Delisting and Deregistration of Credit Suisse ADSs and Credit Suisse Ordinary Shares*" beginning on page 51.

Material Swiss Tax Consequences

The exchange of Credit Suisse Shares for UBS Group AG Shares will not be subject to Swiss Withholding Tax (as defined in the section entitled “*The Merger — Material Swiss Tax Consequences*”).

A holder of Credit Suisse Shares who is not a resident of Switzerland for Swiss tax purposes, and who, during the applicable tax year, has not engaged in a trade or business carried on through a permanent establishment in Switzerland for tax purposes, will not be subject to any Swiss federal, cantonal or communal income tax as a result of the transaction.

For a holder who is an individual resident in Switzerland for tax purposes and who holds Credit Suisse Ordinary Shares as a private investment, the exchange of Credit Suisse Ordinary Shares for UBS Group AG Shares should be tax neutral for the purposes of Swiss federal, cantonal and communal income tax, since the sum of the UBS Group AG share capital and capital contribution reserves after the transaction does not exceed the sum of the share capital and capital contribution reserves of Credit Suisse and UBS Group AG prior to the transaction on a cumulative basis. The consideration for Fractional Shares should constitute a tax-free capital gain (or non tax-deductible loss) for Swiss resident individual shareholders holding Credit Suisse Ordinary Shares as private investments.

For a holder who holds Credit Suisse Ordinary Shares as part of a trade or business carried on in Switzerland, the exchange of Credit Suisse Ordinary Shares for UBS Group AG Shares is tax neutral for the purposes of Swiss federal, cantonal and communal income tax, provided that the relevant book value (and thus, tax book value) of the shares is maintained. Otherwise, a taxable gain or tax deductible loss for the purposes of Swiss federal, cantonal and communal income tax may arise. Cash payments for Fractional Shares in excess of the relevant tax book value of such Fractional Shares are included as taxable income in the relevant taxation period for purposes of Swiss federal, cantonal and communal individual or corporate income tax. Cash payments for Fractional Shares below the relevant tax book value of such Fractional Shares result in a tax deductible loss in the relevant taxation period for purposes of Swiss federal, cantonal and communal individual or corporate income tax. This taxation treatment also applies to Swiss resident private individuals who, for Swiss income tax purposes, qualify as “professional securities dealers” because of, among other things, frequent dealing, or leveraging their investments, in securities. Corporate taxpayers may benefit from taxation relief on capital gains realized upon the disposal of Credit Suisse Ordinary Shares (Beteiligungsabzug), provided such Credit Suisse Ordinary Shares were held for at least one year and the shareholder disposes of at least 10% of the share capital or 10% of the profit and reserves, respectively. Subsequent sales can be less than 10% of the nominal share capital in order to qualify for the participation relief, provided the fair market value of the Credit Suisse Ordinary Shares held as of the previous financial year end prior to this sale amounts to at least 1 million Swiss francs. See “*The Merger — Material Swiss Tax Consequences*” beginning on page 55 for more information.

Material U.S. Federal Income Tax Consequences

The U.S. federal income tax consequences of the transaction to U.S. Holders depend on whether the transaction qualifies as a Reorganization (as defined in the section entitled “*The Merger — Material U.S. Federal Income Tax Consequences*”). To qualify as a Reorganization, the transaction must satisfy certain requirements, some of which are based on factual determinations and actions or events after the transaction, including events that are not within the control of UBS Group AG or Credit Suisse. **Due to significant factual uncertainties, no representation is made as to the U.S. federal income tax treatment of the transaction.** Completion is not conditioned on the transaction qualifying as a Reorganization or on the receipt of an opinion of counsel to that effect and neither UBS Group AG nor Credit Suisse has sought or received an opinion of counsel on the qualification of the transaction as a Reorganization. In addition, UBS Group AG and Credit Suisse have not sought and will not seek any ruling from the IRS regarding any matters relating to the transaction, and as a result,

there can be no assurance that the IRS will not assert, or that a court would not sustain, a position that the transaction does not qualify as a Reorganization.

If the transaction qualifies as a Reorganization, upon exchanging Credit Suisse Shares for UBS Group AG Shares, a U.S. Holder generally will not recognize gain or loss, except with respect to any cash received in lieu of a fractional UBS Group AG Share. If a U.S. Holder holds 5% or more by vote or by value (within the meaning of Treasury Regulations Section 1.367(a)-3(b)(1)(i)) of UBS Group AG immediately following the transaction, depending on events after the transaction, it is possible that U.S. federal income tax consequences differing from, and materially less favorable than, the consequences discussed in the preceding sentence may apply even if the transaction qualifies as a Reorganization, unless certain reporting requirements and other conditions are met. For additional discussion of these considerations, see the section entitled “*The Merger — Material U.S. Federal Income Tax Consequences — Tax Consequences if the Transaction Qualifies as a Reorganization.*”

If the transaction does not qualify as a Reorganization, the exchange of Credit Suisse Shares for UBS Group AG Shares will be a taxable transaction for U.S. federal income tax purposes. In general, a U.S. Holder will recognize capital gain or loss for U.S. federal income tax purposes on the exchange of Credit Suisse Shares for UBS Group AG Shares in an amount equal to the difference, if any, between (i) the sum of the fair market value of the UBS Group AG Shares received in the exchange on the date of the exchange and the amount of cash received in lieu of a fractional UBS Group AG Share and (ii) the U.S. Holder’s adjusted tax basis in the Credit Suisse Shares surrendered in the exchange.

The tax consequences of the transaction are complex and will depend on each U.S. Holder’s particular situation. In addition, U.S. Holders may be subject to state, local or non-U.S. tax laws that are not discussed in this prospectus. For a more detailed discussion of the material U.S. federal income tax consequences of the transaction, see the section entitled “*The Merger — Material U.S. Federal Income Tax Consequences*” beginning on page 60. U.S. Holders should consult their own tax advisors for a full understanding of the tax consequences to them of the transaction.

Accounting Treatment of the Transaction

The transaction will be accounted for as a business combination using the acquisition method of accounting in accordance with IFRS 3, Business Combinations, which requires that one of the two companies in the transaction be designated as the acquirer for accounting purposes based on the evidence available. UBS Group AG will be treated as the accounting acquirer, and accordingly, will record assets acquired, including identifiable intangible assets, and liabilities assumed from Credit Suisse at their respective fair values (except for limited exceptions where IFRS 3 requires a different measurement basis) at the completion date. Due to the circumstances of the transaction, the purchase price will be lower than the net assets recognized, resulting in negative goodwill that is recorded in the income statement at the completion date. For a more detailed discussion of the accounting treatment of the transaction, see the section of this prospectus entitled “*The Merger — Accounting Treatment of the Transaction*” beginning on page 51.

Approvals Required for the Transaction

Pursuant to the merger agreement, completion is subject to the satisfaction (or waiver by UBS Group AG) of certain conditions precedent relating to required approvals, including the following:

- the approval of the transaction by FINMA and granting by FINMA of separate arrangements and these decisions and arrangements remaining in full force and effect and not having been amended, conditioned or revoked before completion;
- the receipt of all approvals and non-objections required to be obtained or which would be prudent to obtain under applicable law, rules or regulation from the relevant competent financial regulatory and other governmental entities (each of which we refer to as a “Regulatory Approval”) and all such Regulatory Approvals being in full force and effect and not having been amended or revoked until completion;

- no Regulatory Approval being subject to a Regulatory Approval Adverse Condition (as defined in the merger agreement and described in the section of this prospectus entitled “*The Merger Agreement — Conditions to Completion*”);
- insofar as the transaction requires approvals pursuant to the relevant merger control, competition or foreign direct investment rules in any jurisdiction without which completion would be unlawful or otherwise prohibited or restricted (each of which we refer to as a “Governmental Approval”), any relevant waiting periods under those rules will have expired, been waived or terminated, or all competent merger control, foreign direct investment and other authorities and, if applicable, courts will have adopted a decision allowing completion; and
- no Governmental Approval being subject to a Governmental Approval Adverse Condition (as defined in the merger agreement and described in the section of this prospectus entitled “*The Merger Agreement — Conditions to Completion*”).

The Regulatory Approvals (granted or yet to be obtained) include (i) approval of the Board of Governors of the Federal Reserve System (which occurred on April 14, 2023), (ii) filing with the Financial Industry Regulatory Authority (“FINRA”) of an application seeking approval of a change of control pursuant to FINRA Rule 1017 (for which an application was filed on April 3, 2023 and which application was subsequently deemed by FINRA to be substantially complete), (iii) approvals from 36 U.S. state or territorial securities agencies pursuant to the relevant state securities laws (which were submitted on or before April 17, 2023) and (iv) approvals of (w) FINMA (which in principle occurred on March 19, 2023), (x) the UK Prudential Regulation Authority (which occurred on March 22, 2023), (y) the UK Financial Conduct Authority (which occurred on March 22, 2023) and (z) the European Central Bank (which occurred on May 22, 2023). To the extent there are outstanding regulatory approvals, UBS Group AG and Credit Suisse are working with the authorities to obtain the relevant approvals as soon as possible.

The material Governmental Approvals required to be obtained prior to completion have been received. These included the expiration or early termination of the waiting period relating to the transaction under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (which expired on April 24, 2023) and approvals or waivers under antitrust or competition laws from competent authorities in other jurisdictions in which UBS Group AG and Credit Suisse have operations, including Canada (where the transaction received merger control clearance on April 25, 2023), Brazil (where the transaction received merger control approval from the Conselho Administrativo de Defesa Econômica on April 25, 2023 and a separate merger control approval from the Brazilian central bank on May 19, 2023), as well as the European Union (where the clearance decision was issued on May 25, 2023), India (where the transaction received merger control clearance on May 18, 2023), and Japan (where the clearance decision was issued on May 10, 2023). Merger control clearance in Switzerland is still outstanding but the suspension requirement has been waived. UBS Group AG and Credit Suisse are working with the Swiss authorities to obtain approval as soon as possible.

As contemplated by the Special Ordinance, UBS Group AG entered into the Loss Protection Agreement with the Swiss Confederation on June 9, 2023. For details of the Loss Protection Agreement, please refer to the section entitled “*The Merger — Loss Protection Agreement*” of this prospectus beginning on page 47. The Special Ordinance provides for the entry into the Loss Protection Agreement by the Swiss government and UBS Group AG to cover up to CHF 9 billion in losses upon realization of a portfolio of certain Credit Suisse assets that represent around CHF 44 billion of Credit Suisse’s leverage exposure, after UBS Group AG has borne the first CHF 5 billion of losses on those assets. Any further loss guarantee exceeding CHF 14 billion, which was not included as part of the Special Ordinance, requires a separate legal basis in the form of a parliamentary approval in the ordinary legislative procedure as well as the commitment credit (i.e., a budget appropriation) by parliament.

In addition, UBS Group AG is engaged in discussions with FINMA regarding adjustments to and transitional measures for certain prudential capital requirements, risk weighted assets measures, and other capital and liquidity requirements for the combined firm (together with the Loss Protection Agreement, we refer to these as the “separate arrangements”). In connection with the merger, and following discussions with UBS Group, FINMA has confirmed that (i) increases in UBS Group’s prudential capital surcharge based on market share in Switzerland and total exposures will, in general, be phased in beginning after the end of 2025 with the phase in path to be determined based on an integration plan to be developed by UBS Group, (ii) UBS Group may temporarily continue to apply certain capital and liquidity rulings previously provided to Credit Suisse, (iii) UBS Group AG may reflect some accounting-related adjustments to temporarily compensate for unintended impacts of interest rate driven fair value adjustments on certain held-to-maturity portfolios, (iv) each of UBS Group AG and Credit Suisse AG may temporarily continue to use their respective existing rules and models for calculating risk-weighted assets and (v) supervisory expectations for liquidity coverage ratios to be maintained by UBS Group AG and each Swiss banking subsidiary. The ruling described in (iii) will be reduced over time until June 30, 2027. The duration of the ruling described in (iv) will be determined by FINMA based on UBS Group’s plans for integrating risk models. UBS Group AG expects discussions with FINMA related to other capital and liquidity topics to extend after completion. UBS Group AG expects that the adjustments and/or transitional measures will be effected by way of interpretations and rulings by FINMA under its ordinary statutory and supervisory authority. As such, FINMA would not rely on the Special Ordinance, and the effectiveness of such adjustments and/or measures is not dependent on the enactment of the Special Ordinance into ordinary law. Refer to the “*Capital Management*” on pages 135-149 in the UBS Group AG Annual Report for additional information on the capital requirements currently applicable to UBS Group AG and to “*Capital Management*” on pages 115-131 in the Credit Suisse Annual Report for additional information on the capital requirements currently applicable to Credit Suisse. UBS Group AG will be subject to additional capital requirements as transitional measures are phased out over time. The amounts of such additional capital requirements are subject to future determination. To the extent any of the separate arrangements are material and are finalized prior to the effectiveness of the registration statement, UBS Group AG will disclose such material terms in an amendment to the registration statement and any material contracts entered into prior to effectiveness of the registration statement will also be filed as exhibits in a pre-effective amendment to the registration statement. Nonetheless, UBS Group AG expects to complete the transaction and continue to work with the Swiss government and its representatives to finalize the separate arrangements following the completion. For further information, see the sections in this prospectus entitled “*Risk Factors – No assurance can be given regarding the terms of the separate arrangements contemplated to be granted by FINMA, or when or if FINMA will grant such separate arrangements at all*” beginning on page 26 and “*The Merger – Plans Following Completion*” beginning on page 53.

UBS Group AG and Credit Suisse are working to obtain all Regulatory Approvals and Governmental Approvals not yet granted expeditiously but cannot be certain when or if these Regulatory Approvals and Governmental Approvals will be obtained, or that the granting of the Regulatory Approvals and Governmental Approvals will not involve the imposition of conditions. For more information, see the sections of this prospectus entitled “*The Merger Agreement – Conditions to Completion*” beginning on page 67 and “*The Merger Agreement – Cooperation for the Purposes of Satisfaction of Conditions to Completion*” beginning on page 68.

Conditions to the Transaction

Completion is subject to the receipt of the Regulatory Approvals and Governmental Approvals described above, granting by FINMA of the separate arrangements, certain specified regulatory support from FINMA and other regulators and other closing conditions. Any such conditions may, to the extent waivable, be waived by UBS Group AG. If UBS waives one or more closing conditions, including the approval of the separate

arrangements, it may increase costs or reduce the Combined Group's operational flexibility. See "*Risk Factors — No assurance can be given regarding the terms of the separate arrangements contemplated to be granted by FINMA, or when or if FINMA will grant such separate arrangements at all.*" beginning on page 26.

In addition to the above separate arrangements, Credit Suisse also has the right to access (i) up to CHF 38 billion of the emergency liquidity assistance from the SNB ("ELA"), which bears interest at the current SNB policy rate of 1.50% plus 0.50% per annum and can either be secured by eligible Swiss residential and commercial mortgages or other eligible securities, (ii) up to CHF 10 billion of the Liquidity-Shortage Financing Facility from the SNB ("LSFF"), which bears interest at the current SNB policy rate of 1.50% plus 0.50% per annum and is secured by pre-positioned collateral generally eligible for borrowings at the SNB mainly consisting of high-quality liquid assets (HQLA) eligible securities, (iii) up to CHF 50 billion of ELA+ from the SNB available to Credit Suisse, which bears interest at the current SNB policy rate of 1.50% plus 3.00% risk premium per annum and is not secured by collateral but is secured by preferential rights in bankruptcy proceedings and (iv) up to CHF 100 billion of the PLB liquidity assistance loans to Credit Suisse, which bear interest at the current SNB policy rate of 1.50% plus 3.00% risk premium per annum, with an additional facility access fee of 0.25% per annum on the full amount of the PLB facility irrespective of the drawn amount, and is not secured by collateral but is secured by preferential rights in bankruptcy proceedings and a federal default guarantee. UBS Group AG may borrow under the ELA according to available eligible collateral and up to CHF 50 billion of ELA+, but has not made any borrowings under these facilities.

For further information, see the section in this prospectus entitled "*The Merger Agreement — Conditions to Completion*" beginning on page 67.

Dissenters' Rights

No traditional dissenters' rights exist under Swiss law. However, for business combinations effected in the form of a statutory merger and subject to Swiss law, such as the transaction, the Merger Act provides that, if the equity rights have not been adequately preserved or compensation payments in the transaction are not adequate, a shareholder may request the competent court to determine a reasonable amount of compensation payable to all shareholders. Any such determination will not impact the implementation of the merger or the receipt of the UBS Group AG Shares as merger consideration.

No Solicitation

The merger agreement generally restricts Credit Suisse's ability to directly or indirectly (i) solicit, initiate, encourage or facilitate any inquiries or proposals from, or discuss or negotiate, or continue discussions or negotiations with, any third party relating to any restricted transaction (as defined below) or take or continue any other action which may encourage or facilitate a restricted transaction, (ii) provide or continue the provision of any information to any third party that may be considering to propose a restricted transaction or grant or continue to grant access to any such third party to Credit Suisse's businesses, properties, assets, books or records (other than contacts and exchanges made in the ordinary course of business on matters which are not related to a restricted transaction) or (iii) approve or enter into any binding or non-binding letter of intent, memorandum of understanding, agreement or other arrangement relating to a restricted transaction.

The merger agreement provides that upon receipt of a proposal from a third party for a restricted transaction or for negotiations with respect to a restricted transaction, Credit Suisse must promptly (but no later than 24 hours after receipt) notify UBS Group AG in writing of any such proposal, which must inform UBS Group AG of the fact and the details of such approach (including any price, terms and conditions indicated). Further, Credit Suisse has agreed to keep UBS Group AG fully informed, on a prompt basis, of any material development with respect thereto, within 24 hours after receipt thereof.

If Credit Suisse receives a proposal from a third party relating to a merger between such third party and Credit Suisse or to a tender offer for all Credit Suisse Shares prior to completion, Credit Suisse is permitted to provide information with respect to Credit Suisse under a customary confidentiality and standstill agreement, which will not contain any terms that impair Credit Suisse's ability to comply with its obligations under the merger agreement, and to participate in discussions or negotiations with the third party regarding such proposal if certain conditions set forth in the merger agreement are met. For further information, see the section of this prospectus entitled "*The Merger Agreement — No Solicitation*" beginning on page 72.

Termination of the Merger Agreement

The merger agreement may be terminated by either UBS Group AG (by decision of the UBS Group AG board of directors) or Credit Suisse (by decision of the Credit Suisse board of directors) only if the conditions precedent to the transaction have not been satisfied or waived (to the extent waivable) by UBS Group AG by December 31, 2023 other than as a result of the action or omission attributed to the party seeking termination. UBS Group AG may not seek to terminate the merger agreement as a result of the failure of the FINMA Bail-In Measures Condition without prior consultation with FINMA.

For purposes of this prospectus, "FINMA Bail-In Measures Condition" means the condition to completion set forth in the merger agreement that, after the signing of the merger agreement, FINMA has not, with respect to either UBS Group AG or Credit Suisse, ordered any bail-in measures including converting debt capital into equity capital or the reduction ("write-down") of claims according to art. 48-50 of the Ordinance of the Swiss Financial Market Supervisory Authority on the Insolvency of Banks and Securities Firms.

For further information, see the section of this prospectus entitled "*The Merger Agreement — Termination of the Merger Agreement*" beginning on page 75.

Termination Fee

In the event of a termination fee event (as defined below), Credit Suisse has agreed to pay UBS Group AG a termination fee of either (i) CHF 100,000,000, or (ii) if the termination occurs because a third party has prior to completion either announced or published an offer to Credit Suisse shareholders or to Credit Suisse to acquire more than 50% of Credit Suisse's business, in the amount of 50% of the explicit or implied premium offered by such third party. Credit Suisse has agreed to pay any termination fee within 20 trading days of the date on which the termination fee becomes payable. However, the merger agreement provides that if Credit Suisse enters into an agreement with a third party with respect to a restricted transaction, which is subject to certain terms and conditions as set forth in the merger agreement and also described in the section entitled "*The Merger Agreement — No Solicitation,*" the termination fee will immediately become due and payable by Credit Suisse to UBS Group AG. Termination fee will be payable plus VAT, if applicable, and will not be reduced on account of any taxes unless required by applicable law.

For the purposes of this prospectus, a "termination fee event" means the event where (i) the merger agreement is terminated due to non-fulfillment or non-waiver of a closing condition, (ii) the merger agreement is terminated and/or the transaction is not completed due to a material breach by Credit Suisse of the merger agreement or (iii) the merger agreement is terminated and/or the transaction is not completed due to a restricted transaction. For further information, see the section of this prospectus entitled "*The Merger Agreement — Termination Fee*" beginning on page 75.

Comparison of Rights of UBS Group AG Shareholders and Credit Suisse Shareholders

While both UBS Group AG and Credit Suisse are companies organized under the laws of Switzerland and accordingly their shareholder rights are both governed by Swiss law, there are certain differences between the

rights of Credit Suisse shareholders and the rights of UBS Group AG shareholders, due to differences between the articles of associations of the two companies. These differences mainly concern the shareholders meeting organization convocation, the voting process, such as right to submit agenda items, shareholding requirements for shareholders calling extraordinary shareholders meetings, and meeting quorum and majority requirements with respect to certain resolutions. For a discussion of these differences, see the section of this prospectus entitled “*Comparison of Rights of UBS Group AG Shareholders and Credit Suisse Shareholders*” beginning on page 104.

RISK FACTORS

You should consider carefully the following risk factors as well as the other information set forth in this prospectus in each of the UBS Group AG SEC Filings and the Credit Suisse SEC Filings. You should also read and consider the risk factors associated with each of the businesses of UBS Group AG and Credit Suisse because these risk factors may affect the operations and financial results of the Combined Group. These risk factors may be found under (i) Part I, Item 3D, “Risk Factors” in the UBS Group AG Annual Report, which is included in the UBS Group AG SEC Filings and (ii) Part I, Item 3D, “Risk Factors” in the Credit Suisse Annual Report and the risk factors disclosed in the other Credit Suisse SEC Filings, in each case included in this prospectus.

Because the market value of UBS Group AG Shares may fluctuate, Credit Suisse shareholders cannot be sure of the market value of the merger consideration that they will receive in the transaction.

Upon completion, subject to the payment of certain fees to the Credit Suisse Depositary in the case of Credit Suisse ADSs, Credit Suisse shareholders will be entitled to receive, for each Credit Suisse Share issued and outstanding immediately prior to completion that they own, merger consideration consisting of 1/22.48 UBS Group AG Shares. Because the exchange ratio is fixed, the value of the merger consideration to be received by Credit Suisse shareholders will depend on the market price of UBS Group AG Shares, which will fluctuate from time to time. The merger consideration will not be adjusted for changes in the market price of UBS Group AG Shares, Credit Suisse Ordinary Shares or Credit Suisse ADSs between the date of signing the merger agreement and the closing date.

The market value of the merger consideration and the market prices of UBS Group AG Shares, Credit Suisse Ordinary Shares and Credit Suisse ADSs at completion may vary significantly from their respective values on the date that the merger agreement was executed or at other dates, such as the date of this prospectus or the date on which a Credit Suisse shareholder actually receives the merger consideration. These changes may result from a variety of factors, including changes in UBS Group’s or Credit Suisse Group’s respective businesses, operations or prospects, regulatory considerations and general business, market, industry or economic conditions. The merger consideration will not be adjusted to reflect the comparative market value of UBS Group AG Shares, Credit Suisse Ordinary Shares and Credit Suisse ADSs. Therefore, the aggregate market value of the merger consideration that a Credit Suisse shareholder is entitled to receive at the time that the transaction is completed could vary significantly from the value of the merger consideration on the date that the merger agreement was executed or the date of this prospectus or the date on which a Credit Suisse shareholder actually receives the merger consideration.

See the section entitled “*Comparative Per Share Market Price*” beginning on page 41 of this prospectus for more information about the market value of UBS Group AG Shares, Credit Suisse Ordinary Shares and Credit Suisse ADSs on certain dates.

The market price for UBS Group AG Shares may be affected by different factors from those that historically have affected the market price of Credit Suisse Ordinary Shares and Credit Suisse ADSs.

Upon completion, Credit Suisse shareholders will receive UBS Group AG Shares and will become UBS Group AG shareholders. UBS Group AG’s businesses differ from those of Credit Suisse, and, accordingly, the results of operations of UBS Group AG, including the market price of UBS Group AG Shares, will be affected by some factors that are different from those currently affecting the results of operations of Credit Suisse. For a discussion of the businesses of UBS Group AG and Credit Suisse and of some important factors to consider in connection with those businesses, please refer to the UBS Group AG SEC Filings and the Credit Suisse SEC Filings. For a discussion of the businesses of UBS Group AG and Credit Suisse and of some important factors to consider in connection with those businesses, please refer to the section of this prospectus entitled “*Where You Can Find Additional Information*” beginning on page 109, the UBS Group AG SEC Filings and the Credit Suisse SEC Filings for details.

There is no assurance when or if the transaction will be completed.

The completion of the transaction is subject to the satisfaction (or waiver by UBS Group AG) of a number of conditions as set forth in the merger agreement, including, among others, (i) the approval of the transaction by FINMA and granting by FINMA of separate arrangements and these decisions and arrangements remaining in full force and effect and not having been amended, conditioned or revoked before completion, (ii) receipt of all Regulatory Approvals, all such Regulatory Approvals being in full force and effect and not having been amended or revoked until completion and no Regulatory Approval being subject to a Regulatory Approval Adverse Condition (as defined in the merger agreement and described in the section of this prospectus entitled “*The Merger Agreement — Conditions to Completion*” beginning on page 67), (iii) receipt of all Governmental Approvals and no Governmental Approval being subject to a Governmental Approval Adverse Condition (as defined in the merger agreement and described in the section of this prospectus entitled “*The Merger Agreement — Conditions to Completion*” beginning on page 67), (iv) receipt of certain specified regulatory support from FINMA and other regulators, (v) the Credit Suisse board of directors having, to the fullest extent permitted by law, (a) made all necessary adjustments to the Credit Suisse Equity Awards, the Credit Suisse Cash Awards, the Credit Suisse Incentive Plans, the Credit Suisse Cash Plans and all relevant governing documents, and (b) exercised any available discretion pursuant to the Credit Suisse Incentive Plans, Credit Suisse Cash Plans and relevant governing documents such that (A) no Credit Suisse Equity Awards or Credit Suisse Cash Awards vest, become exercisable or deliver payment to an employee earlier than their scheduling vesting, exercise or payment date by reason of the merger agreement or the transaction and (B) if, notwithstanding the foregoing, any Credit Suisse Equity Award or Credit Suisse Cash Award will vest, become exercisable or deliver payment to an employee in connection with the merger agreement or the transaction: (x) time pro-rating is applied to such Credit Suisse Equity Awards or Credit Suisse Cash Awards, to reflect the unexpired portion of any vesting period, (y) any performance conditions applicable to such Credit Suisse Equity Awards or Credit Suisse Cash Awards are tested based on actual performance through the consummation of the transaction to the fullest extent practicable (with any determination made in respect of the satisfaction of such performance conditions having been approved by UBS Group AG), and (z) no restrictions applicable to any such Credit Suisse Equity Award or Credit Suisse Cash Award lapse, (vi) no circumstances having arisen and no events having occurred, and no circumstances or events having been reported by Credit Suisse or otherwise come to the attention of UBS Group AG that, considered individually or in conjunction with other requirements, obligations, circumstances or events, would reasonably be capable of having a Material Adverse Effect (as defined in the merger agreement and described in the section of this prospectus entitled “*The Merger Agreement — Conditions to Completion*” beginning on page 67) on Credit Suisse, including its direct or indirect subsidiaries, (vii) after the signing of the merger agreement, FINMA having not, with respect to either UBS Group AG or Credit Suisse, ordered any bail-in measures including converting debt capital into equity capital or the reduction (“write-down”) of claims according to Articles 48-50 of the Ordinance of the Swiss Financial Market Supervisory Authority on the Insolvency of Banks and Securities Firms (the “FINMA Bail-in Measures Condition”), (viii) unrestricted access to unsecured Central Bank liquidity tools from announcement throughout the integration period, including access to liquidity tools in the U.S., (ix) if required by applicable law, the SEC having declared the Form F-4 (of which this prospectus forms a part) effective, and the SEC having not taken any action to suspend effectiveness, and (x) as at completion, the absence of any order or injunction having been issued by any governmental entity or a competent court that prohibits completion and is enforceable in Switzerland. There can be no assurance as to when these conditions will be satisfied (or waived by UBS Group AG), if at all, or that other events will not intervene to delay or result in the failure to complete the transaction.

UBS Group AG expects that the condition precedent with respect to unrestricted access to unsecured Central Bank liquidity tools, including access to liquidity tools in the U.S., will remain satisfied as of completion. Should these liquidity facilities become unavailable to the Combined Group and are not replaced in a subsequent legal instrument post-completion, the businesses of the Combined Group might be negatively impacted. For a more complete summary of the conditions that must be satisfied or, to the extent waivable, waived prior to completion, see the section of this prospectus entitled “*The Merger Agreement—Conditions to Completion*” beginning on page 67.

No assurance can be given regarding the terms of the separate arrangements contemplated to be granted by FINMA, or when or if FINMA will grant such separate arrangements at all.

UBS Group AG has requested FINMA to provide interpretations or rulings affecting the capital and liquidity requirements of the Combined Group. As detailed in the sections entitled “*The Merger — Approvals Required for the Transaction,*” some of these matters have not been fully agreed with FINMA and may not be fully agreed with FINMA prior to completion, and there can be no assurance that they will ever be completed or that they will be completed without material conditions and limitations or that they will remain in full force and effect or not be amended or revoked before or after completion. If FINMA does not provide the requested interpretations or rulings, or the terms of such interpretations or rulings are materially different than we expect, or are in the future revised or revoked, such event could have a material negative impact on future operations of the combined company post-closing and UBS Group AG’s capital and liquidity requirements would be greater than presently expected. In addition, if the losses on the assets subject to the Loss Protection Agreement exceed the guarantee amount under the Loss Protection Agreement and no further loss sharing is agreed, based on corresponding parliamentary approvals, UBS Group AG may suffer material losses on the assets that are subject to the Loss Protection Agreement. For more information, see the section of this prospectus entitled “*The Merger — The Loss Protection Agreement*” beginning on page 47.

Except in specified circumstances, if the conditions precedent to the transaction are not complete by December 31, 2023, either UBS Group AG or Credit Suisse may choose not to proceed with the transaction.

Either UBS Group AG or Credit Suisse may terminate the merger agreement if the conditions precedent to the merger have not been completed by December 31, 2023 other than as a result of the action or omission attributed to the party seeking termination provided that UBS Group AG may not seek to terminate the merger agreement as a result of the failure of the FINMA Bail-In Measures Condition without prior consultation with FINMA. For more information, see the section entitled “*The Merger Agreement—Termination of the Merger Agreement*” beginning on page 75.

The termination of the merger agreement could negatively impact Credit Suisse.

If the transaction is not completed for any reason, the ongoing businesses of Credit Suisse may be adversely affected and, without realizing any of the anticipated benefits of the transaction, Credit Suisse would be subject to a number of risks, including the following:

- Credit Suisse may experience negative reactions from the financial markets, including a further decline of its stock price (which may reflect a market assumption that the transaction will be completed), and may be unable to maintain the current stock exchange listings for its securities;
- Credit Suisse may experience negative reactions from the investment community and its customers, which could lead to further significant outflows in deposits and net assets, which could jeopardize Credit Suisse’s solvency and possibly lead to the institution of resolution measures;
- Credit Suisse may be required to pay certain costs relating to the transaction, whether or not the transaction is completed; and
- matters relating to the transaction will have required substantial commitments of time and resources by Credit Suisse management, which would otherwise have been devoted to day-to-day operations and other opportunities that may have been beneficial to Credit Suisse had the transaction not been contemplated.

If the merger agreement is terminated and the Credit Suisse board of directors seeks another merger, business combination or other transaction, Credit Suisse stockholders cannot be certain that Credit Suisse will find a party willing to offer equivalent or more attractive consideration than the merger consideration Credit Suisse stockholders would receive from UBS Group AG in the transaction. If the merger agreement is terminated

under the circumstances specified in the merger agreement, Credit Suisse may be required to pay UBS Group AG a termination payment of CHF 100,000,000 or a payment of 50% of the explicit or implied premium offered by a third party, if a third party has prior to the completion of the transaction either announced or published an offer to the shareholders of Credit Suisse or to Credit Suisse to acquire, either directly or indirectly, more than 50% of the business of Credit Suisse.

If the Special Ordinance is not transposed into ordinary Swiss law, the additional liquidity assistance loans (ELA+) and the public liquidity backstop may not be available on the terms described in the Special Ordinance.

The Special Ordinance provided for extraordinary liquidity assistance loans in the form of ELA+ and PLB, which are currently in effect in accordance with the Special Ordinance. Borrowings under the ELA+ are secured by preferential rights in bankruptcy proceedings and are not secured by collateral or entitled to a federal default guarantee. Borrowings under the PLB are secured by preferential rights in bankruptcy proceedings and a federal default guarantee. If a proposal to transpose the Special Ordinance into ordinary law is not submitted to Parliament within six months from the entry into effect of the Special Ordinance (i.e. submission of such proposal by September 17, 2023), then new loans under the ELA+ and PLB would no longer be available through the Special Ordinance. The Special Ordinance also provides for the entry into the Loss Protection Agreement by the Swiss government and UBS Group AG to cover up to CHF 9 billion in losses upon realization of a portfolio of certain Credit Suisse assets that represent around CHF 44 billion of Credit Suisse's leverage exposure, after UBS Group AG has borne the first CHF 5 billion of losses on those assets. If the Special Ordinance expires, specific measures that were taken on the basis of the Special Ordinance before its expiration, including the existing ELA+ loans made to Credit Suisse and, if drawn, UBS Group AG and the PLB provided to Credit Suisse and the Loss Protection Agreement, will continue to apply and remain in effect.

Any further loss guarantee exceeding CHF 14 billion, which was not included as part of the Special Ordinance, requires a separate legal basis in the form a parliamentary approval in the ordinary legislative procedure as well as the commitment credit (i.e., a budget appropriation) by parliament. It is a condition precedent to completion that there remains "unrestricted access to unsecured Central Bank liquidity tools from announcement throughout integration period; including access to liquidity tools in the United States of America." Should these liquidity facilities become unavailable and not be replaced in a subsequent legal instrument prior to closing of the transaction, either UBS Group AG or Credit Suisse would have the right to terminate the merger agreement. UBS Group AG expects that the condition precedent with respect to unrestricted access to unsecured Central Bank liquidity tools, including access to liquidity tools in the U.S., will remain satisfied as of completion. Should these liquidity facilities become unavailable to the Combined Group and are not replaced in a subsequent legal instrument post-completion, the businesses of the Combined Group might be negatively impacted.

If we do not receive a Section 9(c) exemption from the SEC, we may not be able to advise, or provide certain other services to, U.S. registered investment funds.

On December 18, 2013, the New Jersey Attorney General, on behalf of the State of New Jersey, filed a civil action in the Superior Court of New Jersey, Chancery Division, Mercer County ("SCNJ"), against Credit Suisse Securities (USA) LLC ("CSSU") and affiliated entities in their roles as issuer, sponsor, depositor and/or underwriter of residential mortgage-backed securities ("RMBS") transactions prior to 2008. The complaint alleged that CSSU and its affiliates misled investors and engaged in fraud or deceit in connection with the offer and sale of RMBS, and sought an unspecified amount of damages. In settlement of this proceeding, on October 24, 2022, the SCNJ entered a Consent Order and Final Judgment ("Consent Judgment") negotiated and submitted by the parties, pursuant to which the settling Credit Suisse parties were required to make a settlement payment in the amount of \$495 million. The Consent Judgment also states that "Credit Suisse shall not violate the Securities Law" or the Consent Judgment or a related administrative consent order.

Section 9(a) of the Investment Company Act of 1940 (the "1940 Act") automatically prohibits entities that are, or whose affiliates are, subject to, among other things, certain court ordered injunctions, from acting as an

investment adviser to, or serving in various other capacities in respect of, U.S. registered mutual funds and other U.S. public funds that are subject to the 1940 Act (“U.S. Registered Funds”).

Credit Suisse has applied to the SEC for an exemption pursuant to Section 9(c) of the 1940 Act that would, subject to the closing of the transaction, (A) (i) effectively provide for a one-year transition period to allow the U.S. Registered Fund business of Credit Suisse to transition to UBS Group entities (or other third-party entities) and (ii) permanently exempt UBS Group’s U.S. Registered Fund business from disqualification under Section 9(a) in respect of the Consent Judgment and (B) provide a temporary exemption to Credit Suisse’s and UBS Group’s U.S. Registered Fund businesses from disqualification under Section 9(a) in respect of the Consent Judgment pending the SEC determination of whether to issue the permanent exemption. As of the date hereof, the SEC has issued such temporary exemption. If the permanent exemption is not granted, or should the temporary exemption or permanent exemption be revoked at any time, UBS Group and Credit Suisse, and their respective affiliates, could be ineligible to act as an investment adviser to, or provide various other services to, U.S. Registered Funds, which could have a material adverse effect on the business of the Combined Group.

The emergency circumstances under which UBS Group AG conducted its due diligence of Credit Suisse may have affected UBS Group AG’s ability to fully evaluate Credit Suisse’s assets and liabilities prior to the execution of the merger agreement.

There is a risk that the short time frame and emergency circumstances of the due diligence UBS Group AG conducted of Credit Suisse limited UBS Group AG’s ability to thoroughly evaluate Credit Suisse and fully plan for its financial condition and associated liabilities. As described in more detail in the section entitled “*The Merger—Background and Reasons for the Transaction*” of this prospectus beginning on page 43, UBS Group AG was approached by Swiss governmental authorities on March 15, 2023 as the Swiss governmental authorities were considering whether to initiate resolution of Credit Suisse. To calm markets and avoid the possibility of contagion in the financial system, the Swiss government had determined that a decision would need to be made before the opening of markets following the weekend. Therefore, UBS Group AG had until March 19, 2023 to conduct limited but intensive due diligence before deciding whether to enter into a merger agreement for the acquisition of Credit Suisse. Under the merger agreement, upon completion of the transaction, all liabilities of Credit Suisse will become liabilities of UBS Group AG. If the circumstances of the due diligence affected UBS Group AG’s ability to thoroughly consider Credit Suisse’s liabilities and weaknesses, it is possible that UBS Group AG will have agreed to a rescue that is considerably more difficult and risky than it had contemplated. This could affect the future performance of UBS Group AG, its share price, and its value as an enterprise.

The merger consideration was determined based on discussions with the Swiss government and agreed with Credit Suisse after negotiations under emergency circumstances, during which limited due diligence could be conducted. As the merger consideration was fixed at that time, risks developing subsequent, or risks that were not fully identified under the circumstances result in the value of Credit Suisse at the time of completion of the transaction being considerably higher or lower than at the time the merger consideration was agreed.

The merger consideration was determined based on discussions with the Swiss government and agreed with Credit Suisse after negotiations under emergency circumstances, during which limited due diligence could be conducted. Risks inherent in the Credit Suisse business, market capitalization, general and economic conditions, the significant turbulence in the capital and financial markets, the impact of the current inflationary environment, the impact of implementation and compliance with current and proposed laws, regulations and regulatory interpretations, and the availability of capital and personnel were considered. Special consideration was also given to the fact that the negotiations of the merger agreement were completed in a highly condensed timeframe and in a market environment of extreme uncertainty. Accordingly, in light of the circumstances under which the merger consideration was determined, and because there will be no adjustment to the exchange ratio for changes in the market price of either UBS Group AG Shares or Credit Suisse Shares between the signing of the merger agreement and the completion of the transaction, the value of the UBS Group AG Shares to be delivered to Credit Suisse shareholders in the transaction could be considerably higher or lower than they were at the time the merger consideration was negotiated. Changes in operations and prospects of Credit Suisse since that time, general market

and economic conditions, and other factors both within and outside UBS Group AG's and Credit Suisse's control may significantly alter the relative value of the companies at the time the transaction is completed.

Information about Credit Suisse upon which the UBS Group AG board of directors premised its decision for UBS Group AG to enter into the merger agreement do not reflect changes in circumstances subsequent to the date of the merger agreement.

The evaluation of Credit Suisse's financial situation, which provided part of the basis for the decision by the UBS Group AG board of directors for UBS Group AG to enter into the merger agreement, was based only on information available up to that date. Changes in operations and prospects of Credit Suisse since that time, general market and economic conditions, and other factors both within and outside UBS Group AG's and Credit Suisse's control may significantly alter the relative value of the companies by the time the merger is completed.

If outflows of customer deposits and net assets at Credit Suisse continue at the same pace reported in the first quarter of 2023 or significantly increase in pace, Credit Suisse could become insolvent.

Credit Suisse has reported that in the first quarter of 2023, it experienced significant withdrawals of cash deposits, non-renewal of maturing time deposits and net asset outflows. Customer deposits declined by CHF 67 billion and net asset outflows were CHF 61.2 billion. See pages 7 and 32 of the Q1 Earnings Release contained in Credit Suisse's Report on Form 6-K dated April 24, 2023. If, as has not in fact occurred, outflows were to continue at the same pace per quarter or the pace of such outflows were to increase, Credit Suisse could quickly reach the limit of all liquidity facilities currently available to it under law and become insolvent.

The announcement and pendency of the transaction could adversely affect each of UBS Group AG's and Credit Suisse's respective businesses, results of operations, financial condition and/or prospects.

The announcement and pendency of the transaction could cause disruptions in and create uncertainty surrounding UBS Group AG's and Credit Suisse's business, including affecting UBS Group AG's and Credit Suisse's relationships with existing and commercial relationships, which could have an adverse effect on UBS Group AG's and Credit Suisse's business, results of operations, financial condition and/or prospects, regardless of whether the transaction is completed. In addition, each of UBS Group AG and Credit Suisse has expended, and continues to expend, significant management resources in an effort to complete the transaction, which are being diverted from UBS Group AG's and Credit Suisse's day-to-day operations.

If the transaction is not completed, the price of UBS Group AG Shares and Credit Suisse Shares may fall if and to the extent that the current prices reflect a market assumption that the transaction will be completed. In addition, the failure to complete the transaction may result in negative publicity or a negative impression of UBS Group AG and Credit Suisse in the investment community and may affect UBS Group AG's and Credit Suisse's relationship with employees, clients and other partners in the business community.

The unaudited pro forma condensed combined financial information of UBS Group AG and Credit Suisse is presented for illustrative purposes only and may not be indicative of the results of operations or financial condition of the Combined Group following the transaction.

The unaudited *pro forma* condensed combined financial information included in this prospectus has been prepared using the consolidated historical financial statements of UBS Group AG and Credit Suisse, is presented for illustrative purposes only and should not be considered to be an indication of the results of operations or financial condition of the Combined Group following the transaction. In addition, the *pro forma* combined financial information included in this prospectus is based in part on certain assumptions regarding the transaction. These assumptions may not prove to be accurate, and other factors may affect the Combined Group's results of operations or financial condition following the transaction. Accordingly, the historical and *pro forma* financial information included in this prospectus does not necessarily represent the Combined Group's results of operations and financial

condition had UBS Group AG and Credit Suisse operated as a combined entity during the periods presented, or of the Combined Group's results of operations and financial condition following completion of the transaction. The Combined Group's potential for future business success and operating profitability must be considered in light of the risks, uncertainties, expenses and difficulties typically encountered by recently combined companies.

In preparing the *pro forma* condensed combined financial information contained in this prospectus, UBS Group AG has given effect to, among other items, the completion of the transaction and the payment of the merger consideration. The unaudited *pro forma* financial information does not reflect all of the costs that are expected to be incurred by UBS Group AG and Credit Suisse in connection with the transaction. For more information, see the section entitled "*Unaudited Pro forma Condensed Combined Financial Information*," including the notes thereto.

The executive board members and directors of Credit Suisse have material interests in the merger that may be different from, or in addition to, the interests of Credit Suisse shareholders generally.

The executive board members and directors of Credit Suisse have material interests in the merger that may be different from, or in addition to, the interests of Credit Suisse shareholders generally. These interests include, among others, the treatment of outstanding equity awards and potential severance benefits and other payments. These interests are described in more detail in the section entitled "*Questions and Answers – What Material Interests Do Credit Suisse Directors and Executive Officers have in the Transaction?*".

Certain contractual counterparties may seek to modify contractual relationships with the Combined Group, which could have an adverse effect on the Combined Group's business and operations.

As a result of the transaction, the Combined Group may experience impacts on relationships with contractual counterparties that may harm the Combined Group's business and results of operations. Certain counterparties may seek to terminate or modify contractual obligations following the transaction whether or not contractual rights are triggered as a result of the transaction. To the knowledge of UBS Group AG and subject to the disclosure made in the prospectus, including the section entitled "*The Merger – Recent Developments*" beginning on page 49 and Credit Suisse's Report of Foreign Private Issuer on Form 6-K (Accession No. 0001370368-23-000042) filed with the SEC on April 24, 2023 included in Annex D of this prospectus, no counterparty of either Credit Suisse or UBS Group AG has sought to terminate or modify material contractual obligations or to discontinue the relationship with Credit Suisse or UBS Group AG in connection with the transaction. Notwithstanding the foregoing, there can be no guarantee that UBS Group AG's or Credit Suisse's contractual counterparties will remain with or continue to have a relationship with the Combined Group or do so on the same or similar contractual terms following the transaction. If any contractual counterparties seek to terminate or modify contractual obligations or discontinue the relationship with the Combined Group, then the Combined Group's business and results of operations may be harmed.

Certain UBS Group AG and Credit Suisse agreement(s), exemption(s) and other arrangement(s) may contain provisions, including change of control or anti-assignment provisions, that may be triggered by the transaction and that, if acted upon or not waived, could cause the Combined Group to lose the benefit of such agreement(s), exemption(s) and arrangement(s) and incur liabilities or replacement costs, which could have an adverse effect on the Combined Group.

Each of UBS Group AG and Credit Suisse is party to, or may become party to after the date hereof, various agreements, exemptions and other arrangements with third parties (including regulators) that may contain provisions, including change of control or anti-assignment provisions, that may be triggered upon completion. In the event that there is such an agreement, exemption or arrangement requiring a consent or waiver in relation to the transaction or the merger agreement, for which such consent or waiver was not obtained, the Combined Group could lose the benefit of the underlying agreement, exemption or arrangement and incur liabilities or replacement costs, which could have an adverse effect on the operations of the Combined Group.

UBS Group AG may not realize all of the expected cost reductions of the transaction.

There is a risk that some or all of the expected cost reductions of the transaction may not be realized, or may not occur within the time periods anticipated by UBS Group AG. The realization of such cost reductions is subject to various assumptions and may be affected by a number of factors, many of which are beyond the control of UBS Group AG. If the Combined Group cannot integrate substantially similar businesses within the same operating entities, or if it fails to integrate all of the companies' technologies, service platforms, and operations in a timely and efficient manner, costs could be higher than expected and customer relations and the Combined Group's reputation may suffer.

Failure to realize all of the anticipated cost reductions of the transaction may impact the financial performance of the Combined Group, the price of the UBS Group AG Shares and the ability of UBS Group AG, following completion, to continue paying dividends on UBS Group AG Shares at levels per share consistent with the current dividend or at all. The proposal of dividends by UBS Group AG following completion will be at the discretion of UBS Group AG board of directors, which may determine at any time not to recommend payment to shareholders payment of a dividend, or lower the proposed dividend per share or not increase the proposed dividend level per share.

Combining our two companies may be more challenging, costly or time-consuming than we expect.

UBS Group AG and Credit Suisse have operated and, until the completion of the merger, will continue to operate, independently. Although UBS Group AG has successfully completed mergers in the past, it is possible that the integration of Credit Suisse into UBS Group AG could result in the loss of key employees, the disruption of the ongoing business of UBS Group AG or inconsistencies in the business cultures of the two companies, or standards, controls, procedures and policies that adversely affect our ability to maintain relationships with customers and employees or to achieve the anticipated benefits of the merger. In addition, as with any merger of banking institutions, there also may be disruptions that cause us to lose customers or cause customers to take their deposits out of UBS Group. The process of harmonizing UBS Group and Credit Suisse's differing risk management strategies and techniques may initially leave the Combined Group exposed to unidentified and unanticipated risks that may be different than those previously faced by the two companies as separate entities. Finally, the Combined Group's competitors may also seek to take advantage of potential integration problems to gain customers.

The Combined Group may not realize all of the anticipated benefits of the transaction.

UBS Group AG and Credit Suisse believe that the transaction will provide benefits to the Combined Group as described elsewhere in this prospectus. However, there is a risk that some or all of the expected benefits of the transaction may fail to materialize or may not occur within the time periods anticipated by UBS Group AG. The realization of such benefits may be affected by a number of factors, including regulatory considerations and decisions, many of which are beyond the control of UBS Group AG and Credit Suisse. In particular, UBS Group AG anticipates that it will complete the transaction before certain of the separate arrangements contemplated with FINMA have been fully agreed with FINMA. If UBS Group AG's requested adjustments or transitional measures are not finally approved by FINMA, or are approved only in part, the Combined Group may have higher than expected capital, liquidity and other requirements, which may increase costs and reduce operational flexibility for the Combined Group. The challenge of coordinating previously independent businesses makes evaluating the business and future financial prospects of the Combined Group following the transaction difficult. UBS Group AG and Credit Suisse have operated and, until completion of the transaction, will continue to operate, independently. The success of the transaction, including anticipated benefits and cost savings, will depend, in part, on the ability to successfully integrate the operations of both companies in a manner that results in various benefits, including, among other things, an expanded market reach and operating efficiencies that do not materially disrupt existing customer relationships nor result in decreased revenues or dividends due to the full or partial loss of customers. The past financial performance of each of UBS Group AG and Credit Suisse may not

be indicative of their future financial performance. The Combined Group will be required to devote significant management attention and resources to integrating its business practices and support functions. The diversion of management's attention and any delays or difficulties encountered in connection with the transaction and the coordination of the two companies' operations could have an adverse effect on the business, financial results, financial condition or the share price of the Combined Group following the transaction. The coordination process may also result in additional and unforeseen expenses.

The write-down of Credit Suisse's additional tier 1 (AT1) bonds after it was granted liquidity assistance loans with a federal default guarantee under the Special Ordinance is subject to litigation that, to the extent directed against or involving Credit Suisse, UBS Group AG may inherit upon the completion of the transaction and may lead to a significant attenuation in the market for AT1 instruments more generally.

Based on the Special Ordinance, the Swiss National Bank provided the PLB to Credit Suisse, which constituted extraordinary liquidity assistance loans secured by a default guarantee from the Swiss Confederation in favor of the Swiss National Bank. Following the receipt of this extraordinary support from the public sector, FINMA determined that a "viability event" had occurred under the terms of Credit Suisse's AT1 securities. In accordance with the contractual terms of these securities and the powers provided to FINMA in the revised Special Ordinance, on March 19, 2023, FINMA issued a decree ordering Credit Suisse to write down the principal and interest of all Credit Suisse's AT1 securities (i.e., to zero) and to notify the holders of the affected securities (the "FINMA Write-Down Order"). Appeals against the FINMA Write-Down Order have been filed with the Swiss Federal Administrative Court. If the appellants were to prevail, in whole or in part, and the FINMA Write-Down Order were overturned, in whole or in part, in a final and binding decision by a competent court, Credit Suisse may incur significant liabilities, and such liabilities may transfer to UBS Group AG at the completion of the merger. In addition, Credit Suisse has received informal questions and complaints from clients and investors about the write-down of the AT1 bonds that may develop into litigation which also could cause UBS Group AG to incur significant liability, including significant costs in defending against any such litigation, and which may cause adverse reputational impacts. The market may also re-evaluate the risks associated with AT1 instruments generally, including that the probability of a write-down risk of AT1 bonds may be higher than some investors now claim to have understood and that the difference between a write-down AT1 bond and a convertible AT1 bond, which would be converted into shares instead of written off, could be more material than certain investors now claim to have perceived in circumstances. As a result, the market for such instruments may be considerably attenuated and could make it more difficult for UBS Group AG to issue such instruments at favorable terms in the future.

UBS Group AG and Credit Suisse may have difficulty attracting, motivating and retaining executives and other employees in light of the transaction.

UBS Group AG's success after the transaction will depend in part on its ability to retain key executives and other employees. Uncertainty about the effects of the transaction on UBS Group AG and Credit Suisse employees may have an adverse effect on each of UBS Group AG and Credit Suisse and consequently on the Combined Group. This uncertainty may impair the Combined Group's ability to attract, retain and motivate personnel.

Credit Suisse's officers and employees that hold Credit Suisse Shares and/or Credit Suisse Equity Awards may, if the transaction is completed, be entitled to the merger consideration in respect of such Credit Suisse Shares and/or Credit Suisse Equity Awards. See the section of this prospectus entitled "*The Merger Agreement – Treatment of Credit Suisse Equity Awards*" beginning on page 66.

On April 5, 2023, the Swiss Federal Council announced that certain outstanding variable remuneration awards held by senior executives of Credit Suisse would either be cancelled (with respect to the executive board), or reduced by 50% (with respect to members of management one level below the executive board) or by 25% (with respect to members of management two levels below the executive board) and that the variable remuneration due in 2023 would be cancelled or reduced on a pro rata basis until the transaction is completed.

The Swiss Federal Ministry of Finance issued the decision to implement these cancellations on May 23, 2023. These remuneration measures affect over 1,000 Credit Suisse employees.

As a result of the value of the merger consideration likely being substantially less than the original notional value of deferred compensation held by certain employees of Credit Suisse, as well as the additional restrictions that the Swiss Federal Council or the Swiss Federal Department of Finance has placed (and may place in the future) on payment of certain incentive compensation to Credit Suisse employees, Credit Suisse may experience substantially higher attrition of employees than historical levels, particularly with regards to those employees for whom the variable compensation (as opposed to the fixed compensation) represents a high percentage in their total remuneration package.

Members of the executive board have employment contracts with Credit Suisse that include a notice period for termination of employment by either Credit Suisse or the respective executive board member. Certain executive board members are subject to a non-compete period of up to 12 months and may be compensated for this period by mutual agreement. In the event of termination, there are no contractual provisions that allow for the payment of severance awards to executive board members beyond the regular compensation awarded during the notice period. Pursuant to the terms of awards held by executive board members and certain other employees, upon an involuntary termination (including an involuntary termination in connection with or following completion), the awards will continue to be settled or delivered on the existing schedule, subject to the terms and conditions of the award.

Furthermore, if employees of UBS Group AG or Credit Suisse depart or are at risk of departing, including because of issues relating to the uncertainty and difficulty of integration, financial security or a desire not to become employees of the Combined Group, UBS Group AG may have to incur significant costs in retaining such individuals (while potentially being subject to the Swiss Federal Department of Finance restrictions described above) or in identifying, hiring and retaining replacements for departing employees and may lose significant expertise and talent. As a result, the Combined Group's ability to realize the anticipated benefits of the transaction may be materially and adversely affected. No assurance can be given that the Combined Group will be able to attract or retain employees to the same extent that Credit Suisse or UBS Group AG have been able to attract or retain employees in the past.

UBS Group AG and Credit Suisse will incur substantial transaction fees and costs in connection with the transaction.

UBS Group AG and Credit Suisse have incurred and expect to incur additional material non-recurring expenses in connection with the transaction and completion of the transactions contemplated by the merger agreement, including costs relating to obtaining required approvals (including Regulatory Approvals and Government Approvals). UBS Group AG and Credit Suisse have incurred significant financial services, accounting, tax and legal fees in connection with the process of negotiating and evaluating the terms of the transaction. Additional significant unanticipated costs may be incurred in the course of integrating the businesses of UBS Group AG and Credit Suisse after completion. Such costs may be significant and could have an adverse effect on the Combined Group's future results of operations, cash flows and financial condition.

The transaction may not be accretive, and may be dilutive, to UBS Group AG's earnings per share, which may negatively affect the market price of UBS Group AG Shares and the implied value of the UBS Group AG Shares following the transaction.

In connection with completion, UBS Group AG expects to deliver to Credit Suisse shareholders approximately 178,031,943 UBS Group AG Shares and certain Credit Suisse Equity Awards are required to be converted into equity awards of UBS Group AG pursuant to the merger agreement. Trading of these UBS Group AG Shares could have the effect of depressing the market price of UBS Group AG Shares.

UBS Group AG currently expects that the transaction will result in a number of benefits, including that it will ultimately be accretive to UBS Group AG's earnings per share. This projection is based on preliminary estimates that may materially change. Future events and conditions could reduce or delay the accretion that is currently projected or result in the transaction being dilutive to UBS Group AG's earnings per share, including adverse changes in market conditions, additional transaction and integration related costs and other factors such as the failure to realize some or all of the cost reductions and other benefits anticipated in the transaction. Any dilution of, reduction in or delay of any accretion to, UBS Group AG's earnings per share could cause the price of UBS Group AG Shares and the implied value of the UBS Group AG Shares to decline or grow at a reduced rate.

UBS Group AG is organized under the laws of Switzerland and a substantial portion of its assets are, and many of its directors and officers reside, outside of the United States. As a result, it may not be possible for shareholders to enforce civil liability provisions of the securities laws of the United States against UBS Group AG or UBS Group AG's officers and members of the UBS Group AG board of directors.

UBS Group AG is organized under the laws of Switzerland. A substantial portion of UBS Group's assets are located outside the United States, and many of UBS Group AG's directors and officers and some of the experts named in this prospectus are residents of jurisdictions outside of the United States and the assets of such persons may be located outside of the United States. As a result, it may be difficult for investors to effect service within the United States upon UBS Group AG and its directors, officers and experts, or to enforce judgments obtained in U.S. courts against UBS Group AG or such persons either inside or outside of the United States, or to enforce in U.S. courts judgments obtained against UBS Group AG or such persons in courts in jurisdictions outside the United States, in any action predicated upon the civil liability provisions of the federal securities laws of the United States.

There is no certainty that civil liabilities predicated solely upon the federal securities laws of the United States can be enforced in Switzerland, whether by original action or by seeking to enforce a judgment of U.S. courts. In addition, punitive damages awards in actions brought in the United States or elsewhere may be unenforceable in Switzerland.

There may be less publicly available information concerning UBS Group AG than there is for issuers that are not foreign private issuers because, as a foreign private issuer, UBS Group AG is exempt from a number of rules under the U.S. Exchange Act and is permitted to file less information with the SEC than issuers that are not foreign private issuers and UBS Group AG, as a foreign private issuer, is permitted to follow home country practice in lieu of the listing requirements of the NYSE, subject to certain exceptions.

As a foreign private issuer under the U.S. Exchange Act, UBS Group AG is exempt from certain rules under the U.S. Exchange Act, and is not required to file periodic reports and financial statements with the SEC as frequently or as promptly as companies whose securities are registered under the U.S. Exchange Act but are not foreign private issuers, or to comply with Regulation FD, which restricts the selective disclosure of material non-public information. In addition, UBS Group AG is exempt from certain disclosure and procedural requirements applicable to proxy solicitations under Section 14 of the U.S. Exchange Act. The members of the UBS Group AG management board, officers and principal shareholders are exempt from the reporting and "short-swing" profit recovery provisions of Section 16 of the U.S. Exchange Act. Accordingly, there may be less publicly available information concerning UBS Group AG than there is for companies whose securities are registered under the U.S. Exchange Act but are not foreign private issuers, and such information may not be provided as promptly as it is provided by such companies. In addition, certain information may be provided by UBS Group AG in accordance with Swiss law, which may differ in substance or timing from such disclosure requirements under the U.S. Exchange Act. Subject to certain exceptions, the rules of the NYSE permit a foreign private issuer to follow its home country practice in lieu of the listing requirements of the NYSE, including, for example, certain board, committee and director independence requirements. Accordingly, you may not have the same protections afforded to shareholders of companies that are required to comply with all of the NYSE corporate governance requirements.

Resales of UBS Group AG Shares following the transaction may cause the market value of UBS Group AG Shares to decline.

UBS Group AG expects that it will deliver to Credit Suisse shareholders approximately 178,031,943 UBS Group AG Shares in connection with the transaction. Completion and the resale of these UBS Group AG Shares from time to time could have the effect of depressing the market value for UBS Group AG Shares. The increase in the number of UBS Group AG Shares may lead to sales of such UBS Group AG Shares or the perception that such sales may occur, either of which may adversely affect the market for, and the market value of, UBS Group AG Shares.

Additionally, the market price of UBS Group AG Shares may fluctuate significantly following completion, and Credit Suisse shareholders could lose value of their UBS Group AG Shares. The delivery of additional UBS Group AG Shares in the transaction could on its own have the effect of depressing the market price for UBS Group AG Shares. In addition, many Credit Suisse shareholders may decide not to hold the UBS Group AG Shares they receive as a result of the transaction. Other Credit Suisse shareholders may be required to sell the UBS Group AG Shares they receive as a result of the transaction. Any such sales of UBS Group AG Shares could have the effect of depressing the market price for UBS Group AG Shares.

The UBS Group AG Shares have different rights from the Credit Suisse Ordinary Shares.

While both UBS Group AG and Credit Suisse are companies organized under the laws of Switzerland and, accordingly, their shareholders' rights are governed by Swiss law, certain of the rights associated with Credit Suisse Ordinary Shares are different from the rights associated with UBS Group AG Shares due to differences between the articles of associations of the two companies. These differences mainly concern the shareholders meeting organization convocation, the voting process, such as right to submit agenda items, shareholding requirements for shareholders calling extraordinary shareholders meetings, and quorum and majority requirements with respect to certain resolutions. See the section of this prospectus entitled "*Comparison of Rights of UBS Group AG Shareholders and Credit Suisse Shareholders*" beginning on page 104 for a discussion of the different rights associated with UBS Group AG Shares and Credit Suisse Ordinary Shares.

UBS Group AG shareholders and Credit Suisse shareholders will have a reduced ownership and voting interest in the Combined Group after the transaction.

Upon completion, UBS Group AG expects to deliver approximately 178,031,943 UBS Group AG Shares in the aggregate to Credit Suisse shareholders pursuant to the merger agreement. As a result, it is expected that, based on the number of UBS Group AG Shares and Credit Suisse Shares outstanding on June 6, 2023, immediately after completion, former Credit Suisse shareholders will own approximately 5.1% of the outstanding UBS Group AG Shares and UBS Group AG shareholders will own approximately 94.9% of the outstanding UBS Group AG Shares. In addition, UBS Group AG Shares may be issued from time to time following completion to holders of Credit Suisse Equity Awards on the terms set forth in the merger agreement. See the section of this prospectus entitled "*The Merger Agreement — Treatment of Credit Suisse Equity Awards*" beginning on page 66 for a more detailed explanation.

UBS Group AG and Credit Suisse may become the target of lawsuits in connection with the transaction and/or the regulatory and other actions taken in connection with the transaction, including the enactment of the Special Ordinance, which could result in substantial costs.

Although no lawsuits have been brought against UBS Group AG, Credit Suisse or their respective board of directors in connection with the transaction and/or the regulatory and other actions taken in connection with the transaction as of the date of this prospectus, including the enactment of the Special Ordinance, lawsuits are often brought against companies that have entered into merger agreements. Even if the lawsuits are without merit,

defending against these claims can result in substantial costs and divert management time and resources. Additionally, if a plaintiff is successful in obtaining an injunction prohibiting consummation of the transaction, then that injunction may delay or prevent the transaction from being completed.

The Combined Group will have significant ongoing litigation and investigation matters, which could have an adverse effect on the Combined Group's business and operations.

The Combined Group will be a global financial services firm and subject to many different legal, tax and regulatory regimes, including extensive regulatory oversight, and will be exposed to significant liability risk. UBS Group and Credit Suisse Group are, and following completion the Combined Group will be, subject to a large number of claims, disputes, legal proceedings and government investigations, and we expect that the Combined Group's ongoing business activities will continue to give rise to such matters in the future. These matters may have an adverse impact on the Combined Group's business and results of operations or may cause disruptions to the Combined Group's operations.

For a detailed discussion of the material ongoing litigation and investigation regarding Credit Suisse, see the following sections (and pages) of the Credit Suisse Annual Report: Note 40 to VI — Consolidated financial statements — Credit Suisse Group (Litigation) (pages 389-400), Note 39 to VIII — Consolidated financial statements — Credit Suisse (Bank) (Litigation) (page 502), as supplemented by Additional Financial Metrics (page 33) of the Q1 Earnings Release contained in Credit Suisse's Report on Form 6-K dated April 24, 2023.

For a detailed discussion of the material ongoing litigation and investigation regarding UBS Group AG, see the following sections (and pages) of the UBS Group AG SEC Filings: Note 17 to each set of Financial Statements (Provisions and contingent liabilities) (pages 295-301 and 414-421, as supplemented by Note 13 of the interim financial statements contained in UBS Group AG's Report on Form 6-K dated April 25, 2023).

If the transaction qualifies as a reorganization within the meaning of Section 368(a) of the Code, U.S. Holders generally cannot recognize losses, and additional reporting requirements may be required for certain U.S. Holders. If the transaction does not qualify as a reorganization within the meaning of Section 368(a) of the Code, it generally will be taxable to U.S. Holders.

To qualify as a Reorganization (as defined in the section entitled "*The Merger — Material U.S. Federal Income Tax Consequences*"), the transaction must satisfy certain requirements, some of which are based on factual determinations and actions or events after the transaction, including events that are not within the control of UBS Group AG or Credit Suisse. **Due to significant factual uncertainties, no representation is made as to the U.S. federal income tax treatment of the transaction.** Completion is not conditioned on the transaction qualifying as a Reorganization or on the receipt of an opinion of counsel to that effect and neither UBS Group AG nor Credit Suisse has sought or received an opinion of counsel on the qualification of the transaction as a Reorganization. In addition, UBS Group AG and Credit Suisse have not sought and will not seek any ruling from the IRS regarding any matters relating to the transaction, and as a result, there can be no assurance that the IRS will not assert, or that a court would not sustain, a position that the transaction does not qualify as a Reorganization.

If the transaction qualifies as a Reorganization, upon exchanging Credit Suisse Shares for UBS Group AG Shares, a U.S. Holder (as defined in the section entitled "*The Merger — Material U.S. Federal Income Tax Consequences*") generally will not recognize gain or loss, except with respect to any cash received in lieu of a fractional UBS Group AG Share. If a U.S. Holder holds 5% or more by vote or by value (within the meaning of Treasury Regulations Section 1.367(a)-3(b)(1)(i)) of UBS Group AG immediately following the transaction, depending on events after the transaction, it is possible that U.S. federal income tax consequences differing from, and materially less favorable than, the consequences discussed in the preceding sentence may apply even if the transaction qualifies as a Reorganization, unless certain reporting requirements and other conditions are met. For additional discussion of these considerations, see the section entitled "*The Merger — Material U.S. Federal Income Tax Consequences — Tax Consequences if the Transaction Qualifies as a Reorganization.*"

If the transaction does not qualify as a Reorganization, the exchange of Credit Suisse Shares for UBS Group AG Shares will be a taxable transaction for U.S. federal income tax purposes. In general, a U.S. Holder will recognize capital gain or loss for U.S. federal income tax purposes on the exchange of Credit Suisse Shares for UBS Group AG Shares in an amount equal to the difference, if any, between (i) the sum of the fair market value of the UBS Group AG Shares received in the exchange on the date of the exchange and the amount of cash received in lieu of a fractional UBS Group AG Share and (ii) the U.S. Holder's adjusted tax basis in the Credit Suisse Shares surrendered in the exchange.

The tax consequences of the transaction are complex and will depend on each U.S. Holder's particular situation. In addition, U.S. Holders may be subject to state, local or non-U.S. tax laws that are not discussed in this prospectus. For a more detailed discussion of the material U.S. federal income tax consequences of the transaction, see the section entitled "*The Merger — Material U.S. Federal Income Tax Consequences*" beginning on page 60. U.S. Holders should consult their own tax advisors for a full understanding of the tax consequences to them of the transaction.

UBS Group AG and Credit Suisse may incur substantial tax liabilities in connection with the transaction.

In the past, Credit Suisse has made significant impairments of the tax value of its participations in subsidiaries below their tax acquisition costs. As a result of the transaction, tax acquisition costs of participations held by Credit Suisse may be transferred to UBS Group AG. Additionally, UBS may further impair its participations in former Credit Suisse subsidiaries after the closing of the transaction. UBS Group AG may become subject to additional Swiss tax on future reversals of such impairments for Swiss tax purposes. Reversals of prior impairments may occur to the extent that the net asset value of the previously impaired subsidiary increases, e.g., as a result of an increase in retained earnings. Although it is difficult to quantify this additional tax exposure, as various potential mitigants (e.g., transfers of assets and liabilities, business activities, subsidiary investments, as well as other restructuring measures within the Combined Group in the course of the integration) exist, such additional tax exposure may be material.

Risks Related to UBS Group AG and Credit Suisse

UBS Group AG and Credit Suisse are, and following completion, UBS Group AG will continue to be subject to the risks described in (i) Part I, Item 3D, "Risk Factors" in the UBS Group AG Annual Report, which is included in the UBS Group AG SEC Filings and (ii) Part I, Item 3D, "Risk Factors" in the Credit Suisse Annual Report and the risk factors disclosed in the other Credit Suisse SEC Filings, including Credit Suisse's Report of Foreign Private Issuer on Form 6-K (Accession No. 0001370368-23-000042) filed with the SEC on April 24, 2023.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements as that term is defined in Section 27A of the U.S. Securities Act and Section 21E of the U.S. Exchange Act, as amended by the Private Securities Litigation Reform Act of 1995. Forward-looking statements can sometimes be identified by the use of forward-looking terms such as “believes,” “expects,” “may,” “will,” “shall,” “should,” “would,” “could,” “potential,” “seeks,” “aims,” “projects,” “predicts,” “is optimistic,” “intends,” “plans,” “estimates,” “targets,” “anticipates,” “continues” or other comparable terms or negatives of these terms, but not all forward-looking statements include such identifying words. Forward-looking statements are based upon current plans, estimates and expectations that are subject to risks, uncertainties and assumptions. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those indicated or anticipated by such forward-looking statements. UBS Group AG can give no assurance that such plans, estimates or expectations will be achieved and therefore, actual results may differ materially from any plans, estimates or expectations in such forward-looking statements. Important factors that could cause actual results to differ materially from such plans, estimates or expectations include:

- the transaction may not close;
- UBS Group AG may be unable to promptly and effectively integrate Credit Suisse Group’s businesses or to achieve the cost reductions and other benefits contemplated by the transaction;
- disruption from the transaction may make it more difficult to maintain business, contractual and operational relationships;
- the announcement or the consummation of the transaction may have a negative effect on the market price of UBS Group AG Shares or on Credit Suisse’s or UBS Group AG’s operating results;
- the degree to which UBS Group AG is successful in the ongoing execution of its strategic plans, including its cost reduction and efficiency initiatives and its ability to manage its levels of risk-weighted assets (RWA) and leverage ratio denominator (LRD), liquidity coverage ratio and other financial resources, including changes in RWA assets and liabilities arising from higher market volatility;
- the degree to which UBS Group AG is successful in implementing changes to its businesses to meet changing market, regulatory and other conditions;
- developments in the macroeconomic climate and in the markets in which UBS Group AG or Credit Suisse operates or to which they are exposed, including movements in securities prices or liquidity, credit spreads, currency exchange rates, the effects of economic conditions, including increasing inflationary pressures, market developments, increasing geopolitical tensions and changes to national trade policies on the financial position or creditworthiness of UBS Group AG’s and Credit Suisse’s clients and counterparties, as well as on client sentiment and levels of activity, including the COVID-19 (coronavirus) pandemic and the measures taken to manage it, as well as instability in the financial industry and the Russian invasion in Ukraine and related sanctions and trade disruptions, which have had and may also continue to have a significant adverse effect on global and regional economic activity, including disruptions to global supply chains and labor market displacements;
- the ability of UBS Group AG or Credit Suisse to successfully recover from a disaster or other business continuity problem due to a hurricane, flood, earthquake, terrorist attack, war, conflict (e.g., the Russia-Ukraine war), pandemic, security breach, cyberattack, power loss, telecommunications failure or other natural or man-made event, including the ability to function remotely during long-term disruptions such as the COVID-19 (coronavirus) pandemic;
- the impact of public health crises, such as pandemics (including the COVID-19 (coronavirus) pandemic) and epidemics and any related company or governmental policies and actions to protect the health and safety of individuals or governmental policies or actions to maintain the functioning of national or global economies and markets, including any quarantine, “shelter in place,” “stay at home,” workforce reduction, social distancing, shut down or similar actions and policies;

- changes in the availability of capital and funding, including any changes in UBS Group AG's credit spreads and ratings, as well as availability and cost of funding to meet requirements for debt eligible for total loss-absorbing capacity (TLAC);
- changes in central bank policies or the implementation of financial legislation and regulation in Switzerland, the United States, the UK, the European Union and other financial centers that have imposed, or resulted in, or may do so in the future, more stringent or entity-specific capital, TLAC, leverage ratio, net stable funding ratio, liquidity and funding requirements, heightened operational resilience requirements, incremental tax requirements, additional levies, limitations on permitted activities, constraints on remuneration, constraints on transfers of capital and liquidity and sharing of operational costs across the Group or other measures, and the effect these will or would have on UBS Group's or Credit Suisse Group's business activities;
- the ability to successfully implement resolvability and related regulatory requirements and the potential need to make further changes to the legal structure or booking model of UBS Group or Credit Suisse Group in response to legal and regulatory requirements, or other external developments;
- the liability to which UBS Group AG may be exposed, or possible constraints or sanctions that regulatory authorities might impose on UBS Group, due to litigation, contractual claims and regulatory investigations affecting UBS Group or Credit Suisse Group, including the potential for disqualification from certain businesses, potentially large fines or monetary penalties, or the loss of licenses or privileges as a result of regulatory or other governmental sanctions, as well as the effect that litigation, regulatory and similar matters have on the operational risk component of UBS Group AG's RWA, as well as the amount of capital available for return to shareholders;
- the effects on UBS Group AG's or Credit Suisse's business, in particular cross-border banking, of sanctions, tax or regulatory developments and of possible changes in UBS Group AG's or Credit Suisse's policies and practices;
- the ability to retain and attract the employees necessary to generate revenues and to manage, support and control UBS Group's and Credit Suisse Group's respective businesses, which may be affected by competitive factors as well as by uncertainty caused by the transaction;
- the occurrence of operational failures, such as fraud, misconduct, unauthorized trading, financial crime, cyberattacks, data leakage and systems failures, the risk of which is increased with cyberattack threats from nation states;
- the ability to maintain and improve UBS Group and Credit Suisse Group's systems and controls for complying with sanctions in a timely manner and for the detection and prevention of money laundering to meet evolving regulatory requirements and expectations, in particular in current geopolitical turmoil;
- the uncertainty arising from domestic stresses in certain major economies;
- changes in UBS Group AG's competitive position, including whether differences in regulatory capital and other requirements among the major financial centers adversely affect UBS Group's ability to compete in certain lines of business;
- changes in the standards of conduct applicable to our businesses that may result from new regulations or new enforcement of existing standards, including measures to impose new and enhanced duties when interacting with customers and in the execution and handling of customer transactions;
- changes in accounting or tax standards or policies, and determinations or interpretations affecting the recognition of gain or loss, the valuation of goodwill, the recognition of deferred tax assets and other matters;
- the ability to implement new technologies and business methods, including digital services and technologies, and ability to successfully compete with both existing and new financial service providers, some of which may not be regulated to the same extent;

- limitations on the effectiveness of UBS Group’s and Credit Suisse Group’s internal processes for risk management, risk control, measurement and modeling, and of financial models generally;
- restrictions on the ability of UBS Group AG to make payments or distributions, including due to restrictions on the ability of its subsidiaries to make loans or distributions, directly or indirectly, or, in the case of financial difficulties, due to the exercise by FINMA or the regulators of UBS Group AG’s operations in other countries of their broad statutory powers in relation to protective measures, restructuring and liquidation proceedings;
- the degree to which changes in regulation, capital or legal structure, financial results or other factors may affect UBS Group AG’s ability to maintain its stated capital return objective;
- uncertainty over the scope of actions that may be required by UBS Group AG, governments and others to achieve goals relating to climate, environmental and social matters, as well as the evolving nature of underlying science and industry and the possibility of conflict between different governmental standards and regulatory regimes;
- the effect that these or other factors or unanticipated events may have on UBS Group AG’s reputation and the additional consequences that this may have on our business and performance;
- the ability of UBS Group AG, as a foreign private issuer, to file less information with the SEC than issuers that are not foreign private issuers;
- the possibility that holders of UBS Group AG Shares in the U.S. may not be able to enforce civil liabilities against UBS Group AG, UBS Group AG officers and members of the UBS Group AG board of directors;
- the risks and uncertainties discussed in the “Risk Factors” and “Cautionary Statement Regarding Forward Looking Statements” sections in UBS Group AG’s reports filed with the SEC; and
- the risks and uncertainties discussed in the “Risk Factors” and “Cautionary Statement Regarding Forward Looking Information” sections in Credit Suisse’s reports filed with the SEC.

These risks, as well as other risks associated with the transaction, are more fully discussed in this prospectus. While the list of factors presented here is considered representative, no such list should be considered to be a complete statement of all potential risks and uncertainties. Unlisted factors may present significant additional obstacles to the realization of forward-looking statements. UBS Group AG cautions you not to place undue reliance on any forward-looking statements as they are not guarantees of future performance or outcomes and that actual performance and outcomes, including, without limitation, UBS Group AG’s or Credit Suisse’s actual results of operations, financial condition and liquidity, and the development of new markets or market segments in which UBS Group AG and Credit Suisse operate, may differ materially from those made in or suggested by the forward-looking statements contained in this prospectus. Except as required by law, UBS Group AG assumes no obligation to update or revise the information contained herein, which speaks only as of the date hereof.

For additional information about factors that could cause UBS Group AG’s and Credit Suisse’s results to differ materially from those described in the forward-looking statements, please see the section of this prospectus entitled “*Risk Factors*” beginning on page 24 as well as in the reports that UBS Group AG and Credit Suisse have filed with the SEC described in the section of this prospectus entitled “*Where You Can Find Additional Information*” beginning on page 109.

References to UBS Group AG in this section mean (i) before completion, the UBS Group and (ii) following completion, the Combined Group.

All written or oral forward-looking statements concerning the transaction or other matters addressed in this prospectus and attributable to UBS Group AG or any person acting on its behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

COMPARATIVE PER SHARE MARKET PRICE

UBS Group AG Shares are traded on the NYSE under the ticker symbol “UBS” and on the SIX under the ticker symbol “UBSG”. Credit Suisse ADSs are traded on the NYSE under the ticker symbol “CS” and Credit Suisse Ordinary Shares are traded on the SIX under the ticker symbol “CSGN”.

The following table sets forth the closing prices for UBS Group AG Shares on the NYSE and the SIX, the closing price for Credit Suisse ADSs on the NYSE and the closing price for Credit Suisse Ordinary Shares on the SIX, in each case, as of March 17, 2023, the last trading day of UBS Group AG Shares, Credit Suisse ADSs and Credit Suisse Ordinary Shares prior to UBS Group AG’s and Credit Suisse’s announcement of their entry into the merger agreement. The table also shows the implied value of the merger consideration for each Credit Suisse Share as of the same date, calculated by multiplying the closing price of UBS Group AG Shares on March 17, 2023 and the exchange ratio.

	<u>UBS Group AG Shares listed on the NYSE</u>	<u>UBS Group AG Shares listed on the SIX</u>	<u>Credit Suisse ADSs listed on the NYSE</u>	<u>Credit Suisse Ordinary Shares listed on the SIX</u>	<u>Implied Per Share Value of Merger Consideration (USD)</u>	<u>Implied Per Share Value of Merger Consideration (CHF)</u>
March 17, 2023	\$ 18.20	CHF 17.11	\$ 2.01	CHF 1.86	\$ 0.81	CHF 0.76

The market prices of UBS Group AG Shares, Credit Suisse ADSs and Credit Suisse Ordinary Shares have fluctuated since the date of the announcement of the merger agreement and will continue to fluctuate from the date of this prospectus to completion, and the market price of UBS Group AG Shares will continue to fluctuate after completion. No assurance can be given concerning the market prices of UBS Group AG Shares, Credit Suisse ADSs and Credit Suisse Ordinary Shares before completion or UBS Group AG Shares after completion. The exchange ratio is fixed in the merger agreement, but the market price of the UBS Group AG Shares (and therefore the value of the merger consideration) upon completion could be greater than, less than or the same as shown in the table above.

THE MERGER

This section of the prospectus describes the various aspects of the transaction and related matters. This section may not contain all of the information that is important to you. You should carefully read this entire prospectus, including the full text of the merger agreement, which is incorporated by reference into this prospectus, for a more complete understanding of the transaction. In addition, important business and financial information about each of UBS Group AG and Credit Suisse is included in this prospectus, including the UBS Group AG SEC Filings and the Credit Suisse SEC Filings. For further information, see the section of this prospectus entitled “*Where You Can Find Additional Information*” beginning on page 109.

This prospectus is being furnished to you as a Credit Suisse shareholder in connection with the acquisition of Credit Suisse by UBS Group AG pursuant to a merger by absorption of Credit Suisse into UBS Group AG and the delivery of UBS Group AG Shares to Credit Suisse shareholders in accordance with terms and conditions set forth in the merger agreement. According to the Special Ordinance, the transaction will be implemented without the need for approval of the shareholders of UBS Group AG or Credit Suisse. Therefore, no shareholder action is required to effect the transaction.

Transaction Structure

The merger agreement provides that, subject to the terms and conditions of the merger agreement, upon completion, Credit Suisse will merge with and into UBS Group AG with UBS Group AG being the absorbing company which will continue to operate following completion and Credit Suisse being the absorbed company which will cease to exist upon completion. By operation of law, Credit Suisse’s assets, liabilities and contracts, as well as all rights and obligations under such contracts, will be transferred to UBS Group AG in their entirety. The terms and conditions of the transaction are contained in the merger agreement, which is described in this prospectus and is incorporated by reference into this prospectus. You are encouraged to read the merger agreement carefully, as it is the legal document that governs the transaction. All descriptions in this prospectus of the terms and conditions of the transaction are qualified by reference to the merger agreement.

Merger Consideration

Upon completion, holders of Credit Suisse Shares issued and outstanding immediately prior to completion will receive, for each Credit Suisse Share, and, subject to the payment of certain fees to the Credit Suisse Depository in the case of Credit Suisse ADSs, the merger consideration consisting of 1/22.48 UBS Group AG Shares.

Each Credit Suisse shareholder will receive cash in lieu of any fractional UBS Group AG Shares that such stockholder would otherwise receive in the transaction. For details, please see the section in this prospectus entitled “*The Merger Agreement — No Fractional UBS Group AG Shares*” beginning on page 66.

Note that if you hold Credit Suisse ADSs, the Credit Suisse Depository may charge you certain fees in connection with the transaction. Specifically, there is a fee of \$0.04 per Credit Suisse ADS (or portion thereof) in connection with the cancellation of the Credit Suisse ADSs and the replacement of such Credit Suisse ADSs with UBS Group AG Shares. Please refer to the Credit Suisse Depository Agreement for additional information.

The UBS Group AG Shares that Credit Suisse shareholders will receive in connection with the transaction are treasury shares and are already approved for listing on the NYSE and the SIX. Based on the number of UBS Group AG Shares and Credit Suisse Shares outstanding on June 6, 2023, upon completion, we expect that former holders of Credit Suisse Shares would own approximately 5.1% of the outstanding UBS Group AG Shares and persons who were holders of UBS Group AG Shares immediately prior to completion would own approximately 94.9% of the outstanding UBS Group AG Shares.

Because the exchange ratio is fixed, the market value of the merger consideration to Credit Suisse shareholders will fluctuate with the market price of the UBS Group AG Shares. Based on the closing price of UBS Group AG Shares of \$18.20 on the NYSE on March 17, 2023, the last full trading day before the public announcement of the merger agreement, the implied value of the merger consideration to Credit Suisse shareholders was approximately \$0.81 per Credit Suisse Share. On June 8, 2023, the latest practicable trading day before the date of this prospectus, the closing price of UBS Group AG Shares on the NYSE was \$20.25 per share and, accordingly, the implied value of the merger consideration to Credit Suisse shareholders was approximately \$0.90 per Credit Suisse Share. The merger consideration will not be adjusted to reflect changes in the price of UBS Group AG Shares or Credit Suisse Shares prior to completion. Therefore, the aggregate market value of the merger consideration that a Credit Suisse shareholder is entitled to receive at the time that the transaction is completed could vary significantly from the value of the merger consideration on the date that the merger agreement was executed or the date of this prospectus or the date on which a Credit Suisse shareholder actually receives the merger consideration.

Background and Reasons for the Transaction

Credit Suisse experienced significant deposit and net asset outflows in the months leading up to the signing of the merger agreement. In early fourth quarter of 2022, Credit Suisse began experiencing deposit and net asset outflows at levels that substantially exceeded the rates incurred in the third quarter of 2022. Specifically, in the fourth quarter of 2022, customer deposits declined by CHF 138 billion and net asset outflows were CHF 110.5 billion. In the second half of March 2023, Credit Suisse experienced significant withdrawals of cash deposits as well as non-renewal of maturing time deposits. Specifically, in the first quarter of 2023, customer deposits declined by CHF 67 billion. Net asset outflows in the first quarter of 2023 were CHF 61.2 billion.

Between October 2022 and February 2023, developments at Credit Suisse, including the net loss reported by Credit Suisse for the third quarter of 2022, implementation of the strategy announced by Credit Suisse in October 2022 and its share price, were reviewed by the ad hoc Strategy Committee of the UBS Group AG board of directors (the “Strategy Committee”). In early December 2022, at the direction of the Strategy Committee, management undertook a preliminary assessment of what consequences a transaction with Credit Suisse would have, should UBS Group AG be approached to take an active role in rescuing Credit Suisse. A preliminary assessment was presented to the Strategy Committee on December 19, 2022. Subsequently, in a meeting of February 20, 2023, the Strategy Committee, and in a meeting on February 22, 2023, the UBS Group AG board of directors, each concluded that an acquisition of Credit Suisse was not desirable for UBS Group AG but that further analysis was necessary in order to prepare for a scenario where Credit Suisse was in serious financial difficulties. In reaching this view, the Strategy Committee and the UBS Group AG board of directors considered the uncertainty of establishing a reliable valuation of Credit Suisse, recent business performance and risks of Credit Suisse, further potential liabilities as well as the risk that regulatory approvals required to complete a transaction might not be obtained or could only be obtained over an extended time. The UBS Group AG board of directors requested management to monitor ongoing developments at Credit Suisse and to assess measures through which UBS Group AG’s concerns could be addressed in the event that the Swiss government made a formal request to UBS Group AG to consider acquiring Credit Suisse. This request reflected the view of the UBS Group AG board of directors that in the event of a further substantial deterioration in Credit Suisse’s position, there was a possibility that UBS Group AG would be requested to intervene.

From January to mid-March 2023, teams including UBS Group AG personnel, external legal advisers and Morgan Stanley (who were asked to assist with this theoretical analysis), carried out financial analyses and assessed potential legal structures and the possible measures to address UBS Group AG’s concerns in a scenario where the Swiss Government would actively support the acquisition of Credit Suisse by UBS Group AG. UBS Group AG also assessed the potential negative impact on UBS Group AG, should Credit Suisse go into resolution. Negative impacts considered included the potential damage to the reputation of Switzerland as a financial center and to the standing of Swiss banks, including UBS, with clients and counterparties should Credit Suisse be placed in resolution. As signs of stress in the financial system materialized, as evidenced by significant

deposit outflows at, and the subsequent failure of, Silicon Valley Bank and Signature Bank in the United States, UBS Group AG's assessment extended to potential global systemic risk that could arise from a failure of Credit Suisse.

Between December 2022 and mid-January 2023, Credit Suisse representatives engaged in meetings with Government Representatives (consisting of a combination of ad hoc and regular touchpoint meetings) in which M&A and other contingency planning was a focus of discussion, which covered, among other options, a potential merger with UBS Group AG. In these meetings, Credit Suisse was represented by certain key representatives, including its Chairman, Chief Executive Officer, Chief Financial Officer and General Counsel.

On March 15, 2023, Credit Suisse experienced a major drop in its share price and a substantial wave of deposit and net asset outflows. After market close on that day, FINMA and the Swiss National Bank ("SNB") publicly announced that the SNB would provide liquidity assistance to Credit Suisse if necessary.

On the afternoon of March 15, 2023, representatives of the Swiss Government, SNB and FINMA ("Government Representatives") met with the Chairman of the UBS Group AG board of directors and other representatives of UBS Group AG. The Government Representatives outlined the heightened fragility of the financial system following the failure of Silicon Valley Bank in the United States and the need to avoid contagion by taking decisive action with respect to Credit Suisse in order to safeguard the domestic and international financial stability by the end of the weekend. Government Representatives indicated that of all possible options available to give the market necessary reassurance, the one deemed by Government Representatives to be most successful in reassuring markets and minimizing negative fallout was an orderly takeover of Credit Suisse by UBS Group AG on a going concern basis. UBS Group AG was therefore asked whether it was willing to consider merging with Credit Suisse in principle. The Government Representatives indicated that without such a rescue it was to be expected that Credit Suisse (a Global Systemically Important Bank) would need to be placed into resolution or into bankruptcy. The Government Representatives made clear that a resolution or bankruptcy of Credit Suisse would have a very severe impact on the financial markets and the banking system in Switzerland and around the world. To avoid this, it would be necessary to agree and announce an alternative transaction by the end of Sunday, March 19, 2023.

UBS Group AG indicated that, in principle, it was prepared to undertake such a transaction if it could be executed in a manner that was in the best interests of its shareholders and other stakeholders. Based on the work previously performed, UBS Group AG outlined the issues that would need to be addressed in any transaction, together with measures designed to achieve transaction certainty. The issues included the ability to conduct due diligence on Credit Suisse, support from the Government Representatives to help timely achieve the multiple regulatory approvals that would be required to consummate the transaction, FINMA approval of transition provisions for additional capital surcharges and liquidity requirements that would arise under Swiss regulation as a result of the size of the transaction and as well as rulings on risk-weighted asset calculations and other capital requirements applicable to Credit Suisse and UBS Group AG (these requests are referred to in the merger agreement as the "separate arrangements"), adequate access to central bank liquidity for Credit Suisse and UBS Group AG, and the potential need for downside protection on the valuation of non-core and similar portfolios.

While Credit Suisse obtained liquidity by (i) borrowing against collateral from the SNB under its emergency liquidity assistance facility ("ELA") (which bears interest at the current SNB policy rate of 1.50% plus 0.50% per annum and can either be secured by eligible Swiss residential and commercial mortgages or other eligible securities) and (ii) temporarily accessing the SNB's Liquidity-Shortage Financing Facility ("LSFF") (which bears interest at the current SNB policy rate of 1.50% plus 0.50% per annum and is secured by pre-positioned collateral generally eligible for borrowings at the SNB mainly consisting of high-quality liquid assets (HQLA) eligible securities) on March 16, 2023, outflows continued and created a downward cycle of a rapidly worsening operating environment, significantly deteriorating the overall liquidity and cash position of Credit Suisse and seriously jeopardizing its financial stability and ultimately exposing it to the imminent risk of being placed into resolution. Credit Suisse subsequently disclosed that, in the second half of March 2023, it experienced significant withdrawals of cash deposits as well as non-renewal of maturing time deposits and that customer deposits

declined by CHF 67 billion in the first quarter of 2023, with outflows most acute in the days immediately preceding and following the announcement of the merger.

In view of such outflows, the Swiss Federal Council adopted a Special Ordinance on March 16, 2023, providing for additional liquidity assistance loans that are granted in addition to the emergency liquidity assistance loans, including ELA+ loans, which are secured with a bankruptcy privilege, and can be provided by the SNB to Credit Suisse and UBS Group AG in the volume of up to CHF 100 billion in the aggregate, as well as liquidity assistance loans to Credit Suisse of up to CHF 100 billion, useable if all available amounts under standard emergency liquidity assistance and ELA+ loans have been fully drawn, that are uncollateralized and are secured by preferential rights in bankruptcy proceedings and a federal default guarantee (“Public Liquidity Backstop” or “PLB”). Borrowing under ELA+ bears interest at the current SNB policy rate of 1.50% plus 3.00% risk premium per annum to the SNB. Borrowing under PLB bears interest at the current SNB policy rate of 1.50% plus 3.00% per annum, which additional 3.00% is split evenly between the SNB and the Confederation. In addition, Credit Suisse must pay the Confederation a facility access fee of 0.25% per annum on the full amount of the PLB facility irrespective of the drawn amount. Credit Suisse’s borrowings under these liquidity facilities and the PLB were CHF 108 billion as of March 31, 2023, including CHF 20 billion of which was under the PLB. As of May 31, 2023, all of the loans under the PLB have been repaid and there are no balances outstanding under the PLB.

On March 16, 2023, the Government Representatives confirmed to representatives of UBS Group AG their preference for UBS Group AG to proceed with the acquisition of Credit Suisse and that they continued to consider this to be the preferred solution among the options available. In this meeting and subsequent discussions, UBS Group AG was represented by one or more of Colm Kelleher, Chairman of the Board; Lukas Gaehwiler, Vice Chairman of the Board; Ralph Hamers, Group CEO, Barbara Levi, Group General Counsel; and Markus Ronner, Group Chief Compliance and Governance Officer. The Government Representatives acknowledged the measures identified by UBS Group AG as necessary to support a transaction and their intention to implement the necessary support, including the Loss Protection Agreement. UBS Group AG indicated to the Government Representatives that it was willing to consider this option in order to give clarity and stability to the market, but only on the basis of a better understanding of Credit Suisse and the risks inherent in such a transaction and with the necessary governmental engagement and support in Switzerland and other key jurisdictions. On March 16, 2023, Credit Suisse and UBS Group AG signed a confidentiality agreement and UBS Group AG and its advisors started to conduct limited but intensive, targeted due diligence to review inherent risks and implications for UBS Group AG of a merger with Credit Suisse. UBS Group AG understood that the other options being considered by the Swiss government at this time would have involved placing Credit Suisse in resolution or bankruptcy.

From March 15, 2023 until March 19, 2023, certain key representatives of Credit Suisse, including its Chairman, Chief Executive Officer, Chief Financial Officer and General Counsel, had a number of meetings with Government Representatives regarding Credit Suisse’s liquidity and outflow situation and potential solutions related thereto, including a potential merger with UBS. Specifically with respect to the status of negotiations and discussions with respect to the proposed merger, there were approximately five meetings between Credit Suisse and Government Representatives between March 18, 2023 and March 19, 2023 prior to the parties’ announcement of the transaction.

During March 18, 2023 and March 19, 2023, UBS Group AG and Credit Suisse exchanged merger agreement drafts and, as a result of negotiations with Credit Suisse, UBS Group AG increased the offered merger consideration payable to Credit Suisse shareholders from approximately CHF 1 billion to approximately CHF 3 billion. In parallel, each of UBS Group AG and Credit Suisse had separate discussions with the Government Representatives to ensure that a merger would be feasible from the perspective of meeting the concerns of each of UBS Group AG and Credit Suisse, as well as enabling Credit Suisse to remain a viable going concern from that weekend until the consummation of the merger. In this context, the Government Representatives determined the actions they considered appropriate to sufficiently stabilize Credit Suisse both in terms of liquidity and capital.

These actions were taken into consideration by UBS Group AG and Credit Suisse in their respective overall assessments of a possible transaction. Additionally, in order to ensure the viability of a possible transaction, UBS Group AG and the Government Representatives further entered into negotiations about a potential loss protection agreement with the Swiss Confederation in favor of UBS Group AG for losses on certain non-core assets. UBS Group AG, Credit Suisse and the Government Representatives also concluded that a transaction in a going concern, supported by stabilization measures, was preferable to a resolution proceeding, given the unpredictable impact of a resolution of Credit Suisse on the financial markets and systemic stability, including in Switzerland, and the potential destruction of value for all stakeholders involved.

On March 19, 2023, the Special Ordinance was revised to empower the Swiss Confederation to enter into the Loss Protection Agreement with UBS Group AG to cover up to CHF 9 billion in losses upon realization of a portfolio of certain Credit Suisse assets that represent around CHF 44 billion of Credit Suisse's leverage exposure, after UBS Group AG having borne the first CHF 5 billion of losses on those assets. The Swiss Federal Council also adopted additional emergency liquidity and capital support measures to stabilize Credit Suisse and support a transaction with UBS Group AG. These measures included making available additional liquidity assistance loans from the SNB to Credit Suisse and UBS Group AG and making inapplicable the requirement that UBS Group AG and Credit Suisse shareholders approve the acquisition. In addition, UBS Group AG and the Swiss Government if circumstances require will jointly examine a solution for losses exceeding CHF 14 billion, which solution would also be expected to provide for the sharing of possible profits. Any loss guarantee or loss sharing arrangement exceeding CHF 14 billion, which was not included as part of the Special Ordinance, would require a separate legal basis in the form of a parliamentary approval in the ordinary legislative procedure as well as the commitment credit (i.e., a budget appropriation) by parliament. The revised Special Ordinance also provides that FINMA may order Credit Suisse to write down additional core capital if the default guarantee by the Swiss confederation of the PLB liquidity assistance loans from the SNB is made available. Accordingly, and in consideration of the applicable contractual terms of Credit Suisse's AT1 Securities, FINMA issued a decree ordering Credit Suisse to write down the principal and interest of all Credit Suisse's AT1 securities (i.e., to zero and to notify the holders of the affected securities).

On the afternoon of March 19, 2023, after having considered the circumstances described above and having determined that the merger was in the best interests of their shareholders and other stakeholders as compared to other available alternatives, the UBS Group AG board of directors approved the merger. In making its determination, the board considered the liquidity facilities made available to both banks, the additional loss buffer created by the FINMA-ordered write-down of Credit Suisse AT1 instruments, the Loss Protection Agreement authorized by the revised Special Ordinance and the expressions of support for the transaction from key regulators of both UBS Group AG and Credit Suisse. The UBS Group AG board of directors also considered that the combined Global Wealth Management and Asset Management businesses would have approximately USD 5 trillion in invested assets, significantly increasing their scale, that the addition of Credit Suisse's Swiss banking business would reinforce UBS Group AG's leading position in Switzerland, management's estimates that UBS Group would remain above its CET1 capital ratio guidance at closing and that the investment banking businesses of the combined firm, excluding assets and liabilities intended to be designated as non-core, would represent less than 25% of the combined firm's RWA. In addition, the UBS Group AG board of directors noted management's preliminary estimate that USD 8 billion of aggregate cost savings could be achieved compared to the estimated separate firm run rate by 2027 and that the transaction would be accretive to earnings per share by 2027. The UBS Group AG board of directors further considered the complexity and cost of integration and executing a wind-down of non-core assets and parts of Credit Suisse's investment bank and the substantial amount of litigation, regulatory and similar matters and other potential contingent liabilities at Credit Suisse.

As part of its deliberations in the lead-up to March 19, 2023, the Credit Suisse board and Credit Suisse's senior management explored, without involvement of the Swiss government, a number of potential alternatives to a proposed merger with UBS Group AG, including, among others, obtaining a significant capital injection from third-party investors and/or the Swiss Government, public offering of shares with backstop underwriting by third-party investors and/or the Swiss Government, structuring options for a negotiated sale of Credit Suisse to a

third-party strategic buyer, an economic transfer of assets by way of total return swaps, and restructuring procedures including capital measures. The Swiss authorities indicated that, given Credit Suisse's rapidly declining financial condition and potentially imminent illiquidity, Credit Suisse would be put into resolution on March 20, 2023 if a solution was not reached by end of day on March 19, 2023. Ultimately, in light of the prevailing exigent economic circumstances, and the Swiss authorities' indications regarding the inevitability of entering resolution on March 20, the Credit Suisse board of directors determined that these other alternatives were highly uncertain given their preliminary nature and in any case not viable from a timing perspective since negotiations and documentation with respect to these other alternatives were by far not as advanced as those with respect to the proposed merger with UBS Group AG. At the time, the proposed merger with UBS Group AG was the only option available to Credit Suisse involving definitive documentation that could be executed on the required timeline to avoid entering into resolution, which was ready to be executed and, according to FINMA, would have included capital measures by way of a bail-in, including the write-down of AT1 instruments.

After receiving confirmation from the Government Representatives that appropriate stabilization measures would be taken to enable Credit Suisse to remain a viable going concern as described above, the merger agreement was executed.

The Loss Protection Agreement

General

On June 9, 2023, UBS Group AG and the Swiss Confederation entered into the Loss Protection Agreement, which will become effective at completion of the transaction (subject to the receipt of certain documentary deliverables). The Loss Protection Agreement implements the provisions of the Special Ordinance that authorize the Swiss government to guarantee up to CHF 9 billion of losses realized on a designated portfolio of non-core Credit Suisse assets (the "Covered Assets") after UBS Group AG bears the first CHF 5 billion of such losses. The form of the Loss Protection Agreement is attached as exhibit 10.1 to the registration statement (of which this prospectus forms a part) and the summary description of the terms of the Loss Protection Agreement in this prospectus is qualified by reference thereto.

Following the completion of the transaction, the Loss Protection Agreement will remain in effect until all Covered Assets have been realized or the earlier termination of the LPA by the Swiss Confederation or UBS Group AG. UBS Group AG will be entitled to make a single claim for payment under the Loss Protection Agreement upon either (i) final realization of all of the Covered Assets, or (ii) at UBS Group AG's election, at any time beginning five years after the effective date of the Loss Protection Agreement if at least 80% of the initial value of Covered Assets have been realized. In the event that UBS Group AG elects to claim under the Loss Protection Agreement under clause (ii), the Loss Protection Agreement guarantee shall cease as to any remaining Covered Assets. In addition, UBS Group AG is obligated to use commercially reasonable efforts to effect realization of the remaining Covered Assets.

Amount Payable by the Swiss Confederation

The amount payable to UBS Group AG by the Swiss Confederation under the Loss Protection Agreement will be the lesser of (i) the amount, if any, by which the Shared Loss Amount (as defined below) realized on Covered Assets exceeds CHF 5 billion (which CHF 5 billion amount will be borne by UBS Group AG) and (ii) CHF 9 billion. UBS Group AG shall submit a calculation of the Net Loss Amount (together with additional information) to the Swiss Confederation with a claim for payment. The Swiss Confederation will request FINMA to confirm the loss amount. Once the loss amount has been confirmed, the Swiss Confederation will make payment no later than nine months after such confirmation to allow for the Swiss parliamentary budgeting process to occur.

The "Shared Loss Amount" is the sum of the (positive or negative) Net Loss Amounts of all Covered Assets to be shared by the Swiss Confederation and UBS Group AG under the Loss Protection Agreement.

The “Net Loss Amount” for any Covered Asset will be the initial value of that asset as represented in UBS Group’s accounts based upon its prevailing fair market value methodologies upon giving effect to the completion of the transaction), less certain repayments received less the realized proceeds from the Covered Asset. This amount may be further adjusted to reflect enforcement costs and expenses incurred to realize on the relevant Covered Asset, the net benefit or cost of any permitted hedge of the relevant Covered Assets and the liability or receivable resulting from litigation relating to the enforcement, recovery or protection of rights relating to the Covered Asset. To the extent that any Net Loss Amount as so determined would otherwise generate a gain for the Swiss Confederation, then any reduction in value between the relevant Credit Suisse group valuation as at March 31, 2023 and the initial valuation as described above may be taken into account to reduce such gain.

“Covered Assets” means certain identified assets and exposures of Credit Suisse that, in general, are non-core and require tail risk protection that were difficult to assess at the time the merger agreement was entered into. The Covered Assets include derivatives, swaps, securities positions, loans, insurance products and investments of Credit Suisse, certain designated remaining assets of Credit Suisse’s securitized products group, as well as relevant hedges for these assets. The Covered Assets exclude certain otherwise relevant assets, including (i) if the asset is not compliant with applicable law, (ii) where the counterparty is subject to sanctions and (iii) litigation relating to the asset (other than litigation to realize on a Covered Asset). Within 90 days after the completion of the transaction, UBS Group AG and the Swiss Confederation will review the Covered Assets to identify data quality issues and, on the basis of such review, discuss in good faith updates to the Covered Assets. Any such updates to the Covered Assets will be documented in a written instrument between UBS Group AG and the Swiss Confederation.

Management

The Loss Protection Agreement will provide that UBS Group AG shall use commercially reasonable efforts and apply due care to minimize the Net Loss Amount incurred in the realization of each Covered Asset and to maximize net realized amounts. Within 90 days after the effective date of the Loss Protection Agreement, UBS Group AG will adopt an asset management framework and conflicts management, governance and remuneration policies.

UBS Group AG will prepare, for each portfolio of Covered Assets, a business plan for the unwinding of the portfolio, including financial projections, associated capital requirements and risk weighted asset requirements, exit or unwinding strategies and a budget for costs to exit or unwind and submit the business plan to the Swiss Confederation for review and approval.

UBS Group AG will provide the Swiss Confederation reporting on the details of each realization of Covered Assets along with quarterly reporting of realized proceeds from Covered Assets, net losses, and financial, risk, stress testing and capital reports for each portfolio included in the business plan. The Swiss Confederation may require UBS Group AG to furnish additional information related to the Covered Assets.

UBS Group AG will adopt and maintain an assurance plan reasonably satisfactory to the Swiss Confederation that is reasonably consistent with UBS Group AG’s internal standards for the conduct by its internal audit or risk function of a regular review of the adequacy of the systems, controls, processes and policies maintained by UBS Group AG for compliance with the Loss Protection Agreement and report on a regular basis to the Swiss Confederation on such compliance.

Governance

UBS Group AG will establish, and maintain for so long as the Loss Protection Agreement is in effect, a “non-core and legacy unit” responsible for the management of the Covered Assets and the administration of UBS Group AG’s obligations under the Loss Protection Agreement, including an oversight committee and a management team. The Swiss Confederation will be entitled to be represented on the oversight committee for the Covered Assets and will have the right to make a request to UBS Group AG to revise the business plans and adjust its rights in the event of a breach of the Loss Protection Agreement by UBS Group AG.

Fees

UBS Group AG shall pay to the Swiss Confederation (i) an initial fee in the amount of CHF 40 million payable in two instalments on June 30, 2023 and September 30, 2023; (ii) an annual maintenance fee in the amount of CHF 36 million payable on a pro rata basis in arrears in equal quarterly instalments during the term of the Loss Protection Agreement commencing with the fourth quarter of 2023 and (iii) an annual drawn portion fee (ranging from 0.40% to 4.00% of CHF 9 billion) per annum, the amount of which will be based on the total amount of realized and unrealized losses on Covered Assets as of each quarter end commencing with the fourth quarter of 2023, which will be set-off against payment by the Swiss Confederation of the net loss amount under the Loss Protection Agreement. If no demand for payment is made by UBS Group AG, the guarantee fee described in clause (iii) will not be payable. In addition, UBS Group AG will pay the Swiss Confederation and FINMA the amount of all documented cost and external expenses, including third party advisory and audit fees, reasonably incurred by them in connection with the Loss Protection Agreement.

Termination

UBS Group AG may terminate the Loss Protection Agreement without any claim for payment thereunder at any time. The Swiss Confederation may terminate the Loss Protection Agreement for an intentional uncured breach by UBS Group AG of specified information delivery, consultation and payment obligations, or if UBS Group moves or resolves to move its headquarters outside Switzerland. If any such intentional uncured breach relates to particular Covered Asset(s), the Swiss Confederation may terminate the Loss Protection Agreement with respect to just those Covered Asset(s).

Amendment

The Loss Protection Agreement may be amended by written consent of UBS Group AG and the Swiss Confederation. Following (i) the fourth anniversary of the execution date of the Loss Protection Agreement and (ii) the realization of more than 70% of the aggregate amount of the initial valuation of all Covered Assets as of May 31, 2023, UBS Group AG and the Swiss Confederation will discuss in good faith whether any amendments or modifications shall be made to the provisions of the Loss Protection Agreement in light of any changed circumstances.

Recent Developments

Securitized Products Group

On November 15, 2022, Credit Suisse announced that it entered into definitive transaction agreements for the sale of a significant part of its Securitized Products Group (“SPG”) to entities and funds managed by affiliates of Apollo Global Management (collectively, “Apollo”). This transaction involves phased closings through the first half of 2023. On February 7, 2023, the parties completed the first closing of such transaction, and the majority of the assets and professionals associated with the transaction are now part of or managed by ATLAS SP Partners, a new standalone credit firm focused on asset-backed financing and capital markets solutions. Following this first closing, there were three subsequent closings in the first quarter of 2023 with further assets transferred. These closings, together with the recently completed sales of other portfolio assets to Apollo and other third parties and certain business reductions, resulted in a total reduction of the asset equivalent exposures of SPG and related financing businesses from USD 74 billion as of September 30, 2022 to approximately USD 26 billion as of March 31, 2023. In the first quarter of 2023, Credit Suisse recognized a pre-tax gain of USD 0.8 billion as a result of the Apollo transaction, partially offset by losses on the valuation of certain financing arrangements associated with the Apollo transaction. An additional closing related to the SPG sale was completed on May 25, 2023. The final closing related to the SPG sale is expected to be consummated by the end of the second quarter of 2023.

In connection with the initial closing of this transaction, Credit Suisse and Apollo entered into various ancillary agreements related to the transaction, including an investment management agreement, certain financing arrangements and a transition services agreement.

For additional information, please refer to pages 10-11 of the Credit Suisse Annual Report.

CS First Boston

On February 9, 2023, Credit Suisse announced that it entered into a definitive transaction agreement with M. Klein & Co LLC relating to Credit Suisse's acquisition of The Klein Group, LLC (i.e., the investment banking business as well as the registered broker-dealer of M. Klein & Co LLC). Subsequently, Credit Suisse and M. Klein & Co LLC mutually agreed to terminate the acquisition of The Klein Group, LLC by Credit Suisse considering Credit Suisse's recently announced merger with UBS Group AG.

For additional information, please refer to page 11 of the Credit Suisse Annual Report.

Customer Account Matters

As further described on page 396 of the Credit Suisse Annual Report, Credit Suisse AG filed a criminal complaint with the Geneva Prosecutor's Office against a former relationship manager in Switzerland who several clients claimed had exceeded his investment authority in the management of their portfolios, resulting in excessive concentrations of certain exposures and investment losses, upon which complaint the prosecutor initiated a criminal investigation. On February 9, 2018, the former relationship manager was sentenced to five years in prison by the Geneva criminal court for fraud, forgery and criminal mismanagement. Civil lawsuits were initiated between August 7, 2017 and August 25, 2017 in the High Court of Singapore and the Supreme Court of Bermuda against Credit Suisse AG and/or certain affiliates, based on the findings established in the criminal proceedings against the former relationship manager.

In Bermuda, in the civil lawsuit brought against a Credit Suisse affiliate, the Supreme Court of Bermuda issued a first instance judgment on March 29, 2022, finding for the plaintiff, and issued an order on May 6, 2022, awarding damages of USD 607.35 million to the plaintiff. On May 9, 2022, Credit Suisse Life (Bermuda) Ltd. appealed the decision to the Bermuda Court of Appeal. On July 25, 2022, the Supreme Court of Bermuda granted a stay of execution of its judgment pending appeal on the condition that damages awarded were paid into an escrow account within 42 days, which condition was satisfied.

In the civil lawsuit brought against Credit Suisse Trust Limited in Singapore, on May 26, 2023, the Singapore International Commercial Court issued a first instance judgment finding for the plaintiffs and directing the parties' experts to agree by June 30, 2023 on the amount of the damages award according to the calculation method and parameters adopted by the court. The plaintiffs' experts initially calculated damages to be USD 926 million, using a start date for such calculation of December 31, 2007. The court determined that the start date for the calculation of damages shall be March 30, 2008, and on the basis of those parameters, CS expects the damages amount to be significantly lower than USD 926 million. The amount will be determined by agreement between the parties' experts, or failing that, will be determined by the court. Further, the court determined that (i) damages shall be reduced by compensation already paid to the plaintiffs and (ii) there shall be no double recovery between this award and the award in the Bermuda proceedings against Credit Suisse Life (Bermuda) Ltd. An estimate of such amounts is not possible today as the proceedings are ongoing. No sanctions, other than damages, were sought by the plaintiffs, and as a result, non-monetary sanctions, such as an injunction or restraining order, were not imposed. Credit Suisse Trust Limited intends to appeal the judgment.

For additional information, please refer to page 396 of the Credit Suisse Annual Report.

Other Material Events and Activities

In the first quarter of 2023 and as further described on page 43, Credit Suisse experienced significant withdrawals of cash deposits, non-renewal of maturing time deposits and net asset outflows across its Wealth Management, Swiss Bank and Asset Management divisions. The corresponding reduction in assets under management and deposits is expected to lead to reduced net interest income and recurring commissions and fees. In particular, this will likely lead to a substantial loss in Credit Suisse's Wealth Management division in the second quarter of 2023.

In light of the merger announcement, the adverse revenue impact from Credit Suisse's previously disclosed exit from non-core businesses and exposures, restructuring charges and funding costs, Credit Suisse would also expect its Investment Bank and the Credit Suisse Group to report a substantial loss before taxes in the second quarter of 2023 and in 2023. Credit Suisse's actual results will depend on a number of factors, including the performance of the Investment Bank and Wealth Management divisions; deposit or net asset flows; the continued exit of non-core positions; goodwill, software and other impairments; litigation; regulatory actions; credit spreads and related funding costs; the usage and availability of the SNB liquidity facilities; the impact of continued voluntary and involuntary employee attrition; and the outcome of certain other items, including potential real estate sales. Credit Suisse is taking proactive measures to protect its client franchise, manage risks and facilitate operational stability.

Listing of UBS Group AG Shares

The UBS Group AG Shares that Credit Suisse shareholders will receive in connection with the transaction are treasury shares and are already approved for listing on the NYSE and on the SIX.

Delisting and Deregistration of Credit Suisse ADSs and Credit Suisse Ordinary Shares

Unless otherwise mandated by the NYSE or the SIX, respectively, at the opening of the first trading day following the entry of the transaction in the Swiss Federal Commercial Registry Office, the Credit Suisse ADSs currently listed on the NYSE will cease to be listed on the NYSE and will thereafter be deregistered under the U.S. Exchange Act, and the Credit Suisse Ordinary Shares currently listed on the SIX will cease to be listed on the SIX.

Accounting Treatment of the Transaction

The transaction will be accounted for as a business combination using the acquisition method of accounting in accordance with IFRS 3, Business Combinations, which requires that one of the two companies in the transaction be designated as the acquirer for accounting purposes based on the evidence available. UBS Group AG will be treated as the accounting acquirer, and accordingly, will record assets acquired, including identifiable intangible assets, and liabilities assumed from Credit Suisse at their respective fair values (except for limited exceptions where IFRS 3 requires a different measurement basis) at the completion date. Due to the circumstances of the transaction, the purchase price will be lower than the net assets recognized, resulting in negative goodwill that is recorded in the income statement at the completion date.

Approvals Required for the Transaction

To complete the transaction, UBS Group AG and Credit Suisse need to obtain approvals or consents from, or make filings with, a number of regulatory and governmental authorities. Subject to the terms of the merger agreement, UBS Group AG and Credit Suisse have agreed to cooperate with each other and use (and to cause their respective subsidiaries to use) their reasonable best efforts to take or cause to be taken all actions and do or cause to be done all things reasonably necessary, proper or advisable on their part under the merger agreement and applicable laws to cause completion to occur as soon as practicable.

Pursuant to the merger agreement, completion is conditioned upon, among other things, the following (subject to waiver by UBS Group AG):

- the approval of the transaction by FINMA and granting by FINMA of separate arrangements and these decisions and arrangements remaining in full force and effect and not having been amended, conditioned or revoked before completion;
- the receipt of all Regulatory Approvals and all such Regulatory Approvals being in full force and effect and not having been amended or revoked until completion;
- no Regulatory Approval being subject to a Regulatory Approval Adverse Condition (as defined in the merger agreement and described in the section of this prospectus entitled “*The Merger Agreement — Conditions to Completion*”);
- insofar as the transaction requires Governmental Approvals, any relevant waiting periods under the applicable rules will have expired, been waived or terminated, or all competent merger control, foreign direct investment and other authorities and, if applicable, courts will have adopted a decision allowing closing of the transaction; and
- no Governmental Approval being subject to a Governmental Approval Adverse Condition (as defined in the merger agreement and described in the section of this prospectus entitled “*The Merger Agreement — Conditions to Completion*”).

The Regulatory Approvals (granted or yet to be obtained) include (i) approval of the Board of Governors of the Federal Reserve System (which occurred on April 14, 2023), (ii) filing with the Financial Industry Regulatory Authority (“FINRA”) of an application seeking approval of a change of control pursuant to FINRA Rule 1017 (for which an application was filed on April 3, 2023 and which application was subsequently deemed by FINRA to be substantially complete), (iii) approvals from 36 U.S. state or territorial securities agencies pursuant to the relevant state securities laws (which were submitted on or before April 17, 2023) and (iv) approvals of (w) FINMA (which in principal occurred on March 19, 2023), (x) the UK Prudential Regulation Authority (which occurred on March 22, 2023), (y) the UK Financial Conduct Authority (which occurred on March 22, 2023) and (z) the European Central Bank (which occurred on May 22, 2023). To the extent there are outstanding regulatory approvals, UBS Group AG and Credit Suisse are working with the authorities to obtain the relevant approvals as soon as possible.

The material Governmental Approvals required to be obtained prior to completion have been received. These included the expiration or early termination of the waiting period relating to the transaction under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (which expired on April 24, 2023) and approvals or waivers under antitrust or competition laws from competent authorities in other jurisdictions in which UBS Group AG and Credit Suisse have operations, including Canada (where the transaction received merger control clearance on April 25, 2023), Brazil (where the transaction received merger control approval from the Conselho Administrativo de Defesa Econômica on April 25, 2023 and a separate merger control approval from the Brazilian central bank on May 19, 2023), as well as the European Union (where the clearance decision was issued on May 25, 2023), India (where the transaction received merger control clearance on May 18, 2023), and Japan (where the clearance decision was issued on May 10, 2023). Merger control clearance in Switzerland is still outstanding but the suspension requirement has been waived. UBS Group AG and Credit Suisse are working with the Swiss authorities to obtain approval as soon as possible.

As contemplated by the Special Ordinance, UBS Group AG entered into the Loss Protection Agreement with the Swiss Confederation on June 9, 2023. For details of the Loss Protection Agreement, please refer to the section entitled “*The Merger — Loss Protection Agreement*” of this prospectus beginning on page 47. The Special Ordinance provides for the entry into the Loss Protection Agreement by the Swiss government and UBS Group AG to cover up to CHF 9 billion in losses upon realization of a portfolio of certain Credit Suisse assets that represent around CHF 44 billion of Credit Suisse’s leverage exposure, after UBS Group AG has borne the

first CHF 5 billion of losses on those assets. Any further loss guarantee exceeding CHF 14 billion, which was not included as part of the Special Ordinance, requires a separate legal basis in the form of a parliamentary approval in the ordinary legislative procedure as well as the commitment credit (i.e., a budget appropriation) by parliament.

In addition, UBS Group AG is engaged in discussions with FINMA regarding adjustments to and transitional measures for certain prudential capital requirements, risk weighted assets measures, and other capital and liquidity requirements for the combined firm (together with the Loss Protection Agreement, we refer to these as the “separate arrangements”). In connection with the merger, and following discussions with UBS Group, FINMA has confirmed that (i) increases in UBS Group’s prudential capital surcharge based on market share in Switzerland and total exposures will, in general, be phased in beginning after the end of 2025 with the phase in path to be determined based on an integration plan to be developed by UBS Group, (ii) UBS Group may temporarily continue to apply certain capital and liquidity rulings previously provided to Credit Suisse, (iii) UBS Group AG may reflect some accounting related adjustments to temporarily compensate for unintended impacts of interest rate driven fair value adjustments on certain held-to-maturity portfolios, (iv) each of UBS Group AG and Credit Suisse AG may temporarily continue to use their respective existing rules and models for calculating risk-weighted assets and (v) supervisory expectations for liquidity coverage ratios to be maintained by UBS Group AG and each Swiss banking subsidiary. The ruling described in (iii) will be reduced over time until June 30, 2027. The duration of the ruling described in (iv) will be determined by FINMA based on UBS Group’s plans for integrating risk models. UBS Group AG expects discussions with FINMA related to other capital and liquidity topics to extend after completion. UBS Group AG expects that the adjustments and/or transitional measures will be effected by way of interpretations and rulings by FINMA under its ordinary statutory and supervisory authority. As such, FINMA would not rely on the Special Ordinance, and the effectiveness of such adjustments and/or measures is not dependent on the enactment of the Special Ordinance into ordinary law. Refer to the “*Capital Management*” on pages 135-149 in the UBS Group AG Annual Report for additional information on the capital requirements currently applicable to UBS Group AG and to “*Capital Management*” on pages 115-131 in the Credit Suisse Annual Report for additional information on the capital requirements currently applicable to Credit Suisse. UBS Group AG will be subject to additional capital requirements as transitional measures are phased out over time. The amounts of such additional capital requirements are subject to future determination. To the extent any of the separate arrangements are material and are finalized prior to the effectiveness of the registration statement, UBS Group AG will disclose such material terms in an amendment to the registration statement and any material contracts entered into prior to effectiveness of the registration statement will also be filed as exhibits in a pre-effective amendment to the registration statement. Nonetheless, UBS Group AG expects to complete the transaction and continue to work with the Swiss government and its representatives to finalize the separate arrangements following the completion. For further information, see the sections in this prospectus entitled “*Risk Factors – No assurance can be given regarding the terms of the separate arrangements contemplated to be granted by FINMA, or when or if FINMA will grant such separate arrangements at all*” beginning on page 26 and “*The Merger – Plans Following Completion*” beginning on page 53.

UBS Group AG and Credit Suisse are working to obtain all Regulatory Approvals and Governmental Approvals not yet granted expeditiously. There can be no assurance that the Regulatory Approvals and Governmental Approvals not yet granted will be obtained. In addition, there can be no assurance that such approvals will not impose conditions or requirements that, individually or in the aggregate, would or could reasonably be expected to be relevant with respect to the closing of the transaction or to have an adverse effect on the financial condition, results of operations, assets or business of UBS Group AG following completion.

Plans Following Completion

The Combined Group will operate with five business divisions, seven functions and four regions, in addition to Credit Suisse AG. Each will be represented by a UBS Group AG executive board member, all of whom will report to UBS Group AG CEO Sergio P. Ermotti. Ulrich Körner, as Credit Suisse AG CEO, will become a member of the UBS Group AG executive board upon completion. Beatriz Martin Jimenez has been appointed

Head Non-Core and Legacy and President EMEA Region and a member of the UBS Group AG executive board. Todd Tuckner became a member of the UBS Group AG executive board on May 9, 2023 and will take on the role of UBS Group AG Chief Financial Officer upon completion. Michelle Bereaux has been appointed Group Integration Officer and a member of the UBS Group AG executive board. Damian Vogel has been appointed as the Group Risk Control Head of Integration to lead risk control related integration activities and define the best possible set-up for UBS Group AG's combined group risk control function.

This leadership team is expected to develop and implement the business and integration plans for the combined firm. These plans will include for each business division, non-core and legacy region and function defining the management structures below the Group Executive Board, detailed strategy and implementation plans, further alignment of risk, governance and policy frameworks and alignment of legal entity structure to the strategy. UBS Group AG also expects, among other things, to fully define the scope of covered assets in connection with the Loss Protection Agreement, conclude discussion of the separate arrangements with FINMA and to recommend to the UBS Group AG board of directors strategic options for the Combined Group's Swiss business. The Loss Protection Agreement provides for comprehensive governance arrangements, such as the establishment of an oversight committee for those assets within the scope of the government guarantee, and the Swiss Confederation is entitled to be represented at the oversight committee and has the right to make a request to UBS Group AG to revise plans for the management and disposal of the assets within the scope of the Loss Protection Agreement and to adjust its rights in the event of a breach of the Loss Protection Agreement by UBS Group AG.

Implementation of the post-merger integration plans is expected to take three to five years. UBS Group AG expects to conclude its plans for the Swiss business and discussions of the separate arrangements with FINMA in the third quarter of 2023 and to complete the detailed integration plans for each business division, including definition of non-core activities and cost reduction plans by the fourth quarter of 2023. The UBS Group AG board of directors expects that the combined Global Wealth Management and Asset Management businesses would have approximately USD 5 trillion in invested assets, significantly increasing their scale. The UBS Group AG board of directors also expects that the investment banking businesses of the Combined Group, excluding assets and liabilities intended to be designated as non-core, would represent less than 25% of the Combined Group's RWA. Management of UBS Group AG estimates that UBS Group AG would remain above its CET1 capital ratio guidance of 13% at completion, well above its current CET1 capital ratio requirement of 10.4%. Refer to "*Capital Management*" on pages 135-149 in the UBS Group AG Annual Report for additional information on the capital requirements currently applicable to UBS Group AG. As described in "*The Merger — Approvals Required for the Transaction*," FINMA ruled on adjustments to, and transitional measures for, certain prudential capital requirements, risk weighted assets measures, and other capital and liquidity requirements for the Combined Group. UBS Group AG will be subject to additional capital requirements as transitional measures are phased out over time. The amounts of such additional capital requirements are subject to future determination. In addition, subject to detailed and adjusted planning after completion, the management of UBS Group AG estimates that USD 8 billion of aggregate cost savings could be achieved compared to the estimated separate firm run rate by 2027 and that the transaction would be accretive to earnings per share by 2027. The UBS Group AG board of directors are considering all options for the Swiss banking units of the Combined Group and as of now no decision has been made on whether UBS Group AG and Credit Suisse will fully integrate into a single brand in Switzerland or on an international scale or if there will be additional spin-off of any material Credit Suisse business units.

Dissenters' Rights

No traditional dissenters' rights exist under Swiss law. For business combinations effected in the form of a statutory merger and subject to Swiss law, such as the transaction, the Merger Act provides that, if the equity rights have not been adequately preserved or compensation payments in the transaction are not adequate, a shareholder may request the competent court to determine a reasonable amount of compensation payable to all shareholders. Any such determination will not impact the implementation of the merger or the receipt of the UBS Group AG Shares as merger consideration.

Restrictions on Resales of UBS Group AG Shares Received in the Transaction

The UBS Group AG Shares received by Credit Suisse shareholders in the transaction will be registered under the U.S. Securities Act and will be freely transferable under the U.S. Securities Act, except for UBS Group AG Shares received by any shareholder who may be deemed to be an “affiliate” of UBS Group AG for purposes of Rule 144 under the U.S. Securities Act. Persons who may be deemed to be affiliates include individuals or entities that control, are controlled by, or are under the common control with UBS Group AG and may include the executive officers, directors and significant shareholders of UBS Group AG. This prospectus does not cover resale of UBS Group AG Shares received by any person upon completion, and no person is authorized to make use of this prospectus in connection with any such resale.

Material Swiss Tax Consequences

The following summary sets forth the material Swiss tax consequences of receiving, owning and disposing of UBS Group AG Shares.

This summary is based upon Swiss tax laws and the practices of the Swiss tax authorities in effect on the date of this prospectus. Such laws and administrative practice are subject to change at any time, possibly with retroactive effect. The summary does not constitute tax advice and is intended only as a general guide. It is not exhaustive and shareholders should consult their own tax advisors about the Swiss tax consequences (and tax consequences under the laws of other relevant jurisdictions) of the acquisition, ownership and disposal of UBS Group AG Shares. This summary does not discuss all tax considerations that may be relevant to shareholders in light of their particular circumstances, nor does it address the consequences for shareholders subject to special treatment under Swiss tax laws, including but not limited to tax-exempt entities; banks, financial institutions or insurance companies; persons who acquired Credit Suisse Shares pursuant to an employment share plan or otherwise as compensation; or persons who own Credit Suisse Shares through partnerships or other pass-through entities.

Tax Considerations Linked to the Transaction

Swiss Withholding Tax

The exchange of Credit Suisse Shares for UBS Group AG Shares, as well as the receipt of consideration for Fractional Shares, will not be subject to Swiss Withholding Tax (as defined below in “*Holding UBS Group AG Shares — Swiss Withholding Tax*”).

Swiss Income Taxes

Non-Resident Shareholders

A holder of Credit Suisse Shares who is not a resident of Switzerland for Swiss tax purposes, and who, during the applicable tax year, has not engaged in a trade or business carried on through a permanent establishment in Switzerland for tax purposes, will not be subject to any Swiss federal, cantonal or communal income tax as a result of the transaction.

Resident Private Shareholders

For a holder who is an individual resident in Switzerland for tax purposes and who holds Credit Suisse Ordinary Shares as a private investment, the exchange of Credit Suisse Ordinary Shares for UBS Group AG Shares should be tax neutral for the purposes of Swiss federal, cantonal and communal income tax, since the sum of the UBS Group AG share capital and capital contribution reserves after the transaction does not exceed the sum of the share capital and capital contribution reserves of Credit Suisse and UBS Group AG prior to the transaction on a cumulative basis. The consideration for Fractional Shares should constitute a tax-free capital gain (or non tax-deductible loss) for Swiss resident individual shareholders holding Credit Suisse Ordinary Shares as private investments (please refer to Section “*Merger Agreement — No Fractional UBS Group AG Shares*” for more information).

Domestic Commercial Shareholders

For a holder who holds Credit Suisse Ordinary Shares as part of a trade or business carried on in Switzerland, the exchange of Credit Suisse Ordinary Shares for UBS Group AG Shares is tax neutral for the purposes of Swiss federal, cantonal and communal income tax, provided that the relevant book value (and thus, tax book value) of the shares is maintained. Otherwise, a taxable gain or tax deductible loss for the purposes of Swiss federal, cantonal and communal income tax may arise.

Cash payments for Fractional Shares in excess of the relevant tax book value of such Fractional Shares are included as taxable income in the relevant taxation period for purposes of Swiss federal, cantonal and communal individual or corporate income tax. Cash payments for Fractional Shares below the relevant tax book value of such Fractional Shares result in a tax deductible loss in the relevant taxation period for purposes of Swiss federal, cantonal and communal individual or corporate income tax (please refer to Section “*Merger Agreement — No Fractional UBS Group AG Shares*” for more information). This taxation treatment also applies to Swiss resident private individuals who, for Swiss income tax purposes, qualify as “professional securities dealers” because of, among other things, frequent dealing, or leveraging their investments, in securities.

Corporate taxpayers may benefit from taxation relief on capital gains realized upon the disposal of Credit Suisse Ordinary Shares (Beteiligungsabzug), provided such Credit Suisse Ordinary Shares were held for at least one year and the shareholder disposes of at least 10% of the share capital or 10% of the profit and reserves, respectively. Subsequent sales can be less than 10% of the nominal share capital in order to qualify for the participation relief, provided the fair market value of the Credit Suisse Ordinary Shares held as of the previous financial year end prior to this sale amounts to at least 1 million Swiss francs.

Swiss Securities Tax

The exchange of Credit Suisse Shares for UBS Group AG Shares should not be subject to issuance stamp duty and securities transfer tax. The sale of UBS Group AG Shares on behalf of the holders of the Share Fraction Rights, and specifically with respect to the delivery of 1 UBS Group AG Share against additional cash consideration to Credit Suisse Shareholders who hold less than 22.48 Credit Suisse Shares, respectively, may be subject to securities transfer tax at a current rate of up to 0.15% if a bank or other securities dealer in Switzerland or Liechtenstein, as defined in the Swiss Federal Stamp Tax Act, is a party or an intermediary to the transaction and no exemption applies (please refer to Section “*Merger Agreement — No Fractional UBS Group AG Shares*” for more information).

Holding UBS Group AG Shares

Swiss Withholding Tax

Non-taxable and Taxable Distributions

Under present Swiss tax law, dividends and similar cash or in-kind distributions made by UBS Group AG to a holder of UBS Group AG Shares (including liquidation proceeds and bonus shares) are subject to Swiss federal withholding tax (the “Withholding Tax”), currently at a rate of 35% (applicable to the gross amount of taxable distribution). UBS Group AG is obliged to deduct the Withholding Tax from the gross amount of any taxable distribution and to pay the tax to the Swiss Federal Tax Administration within 30 days of the due date of such distribution, unless a notification procedure applies (notification procedure does not apply to portfolio holdings). The repayment of the par value of the UBS Group AG Shares and any repayment of qualifying additional paid-in capital (capital contribution reserves, *Reserven aus Kapitaleinlagen*), within the limitations accepted by the legislation in force when such dividend becomes due and the respective administrative practice, are not subject to Withholding Tax.

In that respect it should, however, be noted that Swiss listed companies such as UBS Group AG are required to fund dividends out of taxable reserves in an amount at least equivalent to capital contribution reserves to the extent such taxable reserves are available for a distribution, meaning that dividends distributed will be subject to Withholding Tax on at least half of their total amount (to the extent UBS Group AG disposes of taxable reserves in such amount).

Capital gains realized on the sale of UBS Group AG Shares are not subject to Withholding Tax (other than in case of a sale (i) for cancellation, (ii) if the total of repurchased shares exceeds 10% of UBS Group AG share capital or (iii) if the repurchased UBS Group AG Shares are not resold within the applicable time period after the repurchase, if and to the extent the redemption price less the nominal value of the redeemed UBS Group AG Shares is not booked against confirmed capital contribution reserves (“Taxable Repurchase”).

Refund of Withholding Tax on Taxable Distributions

Swiss Resident Recipients: Swiss resident individuals who hold their UBS Group AG Shares as private assets (“Resident Private Shareholders”) and who, among other things, are also the beneficial owners of the UBS Group AG Shares and the dividends or the other distributions made or paid by UBS Group AG on the UBS Group AG Shares are in principle eligible for a full refund or credit against income tax of the Withholding Tax if they duly report the underlying income in their income tax return. In addition, (i) corporate and individual shareholders who are resident in Switzerland for tax purposes who hold their UBS Group AG Shares as business assets, (ii) corporate and individual shareholders who are not resident in Switzerland, and who, in each case, hold their UBS Group AG Shares as part of a trade or business carried on in Switzerland through a permanent establishment with fixed place of business situated in Switzerland for tax purposes and (iii) Swiss resident private individuals who, for income tax purposes, are classified as “professional securities dealers” for reasons of, inter alia, frequent dealing, or leveraged investments, in shares and other securities (collectively, “Domestic Commercial Shareholders”) and who, among other things, are also the beneficial owners of the UBS Group AG Shares and the dividends or the other distributions made or paid by UBS Group AG on the UBS Group AG Shares are in principle eligible for a full refund or credit against income tax of the Withholding Tax if they, inter alia, duly report the underlying income in their income statements or income tax return, as the case may be.

Non-Resident Shareholders: Shareholders who are not resident in Switzerland for tax purposes, and who, during the respective taxation year, have not engaged in a trade or business carried on through a permanent establishment with fixed place of business situated in Switzerland for tax purposes, and who are not subject to corporate or individual income taxation in Switzerland for any other reason (collectively, “Non-Resident Shareholders”) may be entitled to a total or partial refund of the Withholding Tax if the country in which such recipient resides for tax purposes maintains a bilateral treaty for the avoidance of double taxation with Switzerland and further conditions of such treaty are met. Non-Resident Shareholders should be aware that the procedures for claiming treaty benefits (and the time required for obtaining a refund) may differ from country to country. Non-Resident Shareholders should consult their own legal, financial or tax advisors regarding receipt, ownership, purchases, sale or other dispositions of UBS Group AG Shares and the procedures for claiming a refund of the Withholding Tax.

Residents of the United States: A holder of UBS Group AG Shares who is a resident of the United States for purposes of the U.S.-Swiss Double Taxation Treaty without a trade or business carried on through a permanent establishment in Switzerland to whom the shares are attributable and who, in each case, is also the beneficial owner of the shares and the dividend or other distribution and who meets the conditions of the U.S.-Swiss Double Taxation Treaty, may, (i) if the holder is a qualified U.S. pension fund, apply for a full refund of the Withholding Tax, (ii) if the holder is a corporation owning at least 10% of UBS Group AG voting rights, apply for a refund of the Withholding Tax withheld in excess of the 5% reduced treaty rate, and (iii) in all other cases, apply for a refund of the Withholding Tax withheld in excess of the 15% treaty rate. The claim for a refund must be filed on Swiss Tax Form 82 (82C for corporations, 82I for individuals, 82E for other entities and 82R for regulated investment companies), which forms, together with the form providing instructions, may be obtained

from the Swiss embassy or any Swiss consulate general in the United States, the Swiss Federal Tax Administration at the address below or may be downloaded from the Swiss Federal Tax Administration's website. Four copies of the form must be duly completed and then signed before a notary public of the U.S. and three of them must then be sent to the Swiss Federal Tax Administration, Eigerstrasse 65, CH-3003 Bern, Switzerland. The form must be accompanied by suitable evidence demonstrating the deduction of the Swiss withholding tax, such as certificates of deduction, bank vouchers or credit slips. The form must be filed no later than December 31 of the third year following the calendar year in which the dividend subject to the withholding tax became payable.

Swiss Income Tax

Non-Resident Shareholders

A holder of UBS Group AG Shares who is not a resident of Switzerland for Swiss tax purposes, and who, during the applicable tax year, has not engaged in a trade or business carried on through a permanent establishment in Switzerland for tax purposes, is not subject to any Swiss federal, cantonal or communal income tax as a result of the receipt of dividends or other distributions on UBS Group AG Shares or in respect of any capital gains realized on the sale of UBS Group AG Shares. Refer to “— *Swiss Withholding Tax*” above for a summary of the Withholding Tax treatment of dividends and other distributions and capital gains on UBS Group AG Shares. Refer to “— *International automatic exchange of information in tax matters*” and “— *Swiss facilitation of the implementation of the U.S. Foreign Account Tax Compliance Act*” below for a summary on the exchange of information in respect of holding UBS Group AG Shares in an account or deposit with a financial institution or paying agent in Switzerland.

Resident Private Shareholders

Resident Private Shareholders who receive dividends and similar distributions (including stock dividends and liquidation proceeds in excess of nominal share capital and capital contribution reserves, as well as Taxable Repurchases) from UBS Group AG must include these distributions in his or her personal tax return and will be subject to federal, cantonal and communal income tax on any net taxable income for the relevant tax period. However, dividends and similar distributions out of capital contribution reserves and repayments of the nominal share capital will not be subject to federal, cantonal and communal income tax. A capital gain or loss realized by Resident Private Shareholders (except in respect of Taxable Repurchases which qualify as dividend for tax purposes) is classified as a tax-exempt private capital gain and a capital loss as a non-tax deductible private capital loss for purposes of Swiss federal, cantonal and communal income tax.

See “— *Domestic Commercial Shareholders*” below for a summary of the taxation treatment of Swiss resident individuals who, for income tax purposes, qualify as “professional securities dealers.”

Domestic Commercial Shareholders

Domestic Commercial Shareholders who receive dividends and similar cash or in-kind distributions (including liquidation proceeds as well as bonus shares) are required to recognize such payments in their income statements for the relevant tax period and are subject to Swiss federal, cantonal and communal individual or corporate income tax, as the case may be, on any net taxable earnings (including dividends) for such period. Domestic Commercial Shareholders who are corporate taxpayers may qualify for participation relief on dividend distributions (*Beteiligungsabzug*), provided such UBS Group AG Shares represent at the time of the distribution at least 10% of the share capital or 10% of the profit and reserves, respectively, or a fair market value of at least 1 million Swiss francs. For cantonal and communal income tax purposes, the regulations on participation relief are broadly similar, depending on the canton of residency.

Domestic Commercial Shareholders are required to recognize a gain or loss realized upon the disposal of UBS Group AG Shares in their income statement for the respective taxation period and are subject to Swiss federal, cantonal and communal individual or corporate income tax, as the case may be, on any net taxable earnings (including the gain or loss realized on the sale or other disposition of UBS Group AG Shares) for such taxation period. Domestic Commercial Shareholders who are corporate taxpayers may benefit from taxation relief on capital gains realized upon the disposal of UBS Group AG Shares (Beteiligungsabzug), provided such UBS Group AG Shares were held for at least one year and the shareholder disposes of at least 10% of the share capital or 10% of the profit and reserves, respectively. Subsequent sales can be less than 10% of the nominal share capital in order to qualify for the participation relief, provided the fair market value of the UBS Group AG Shares held as of the previous financial year end prior to this sale amounts to at least 1 million Swiss francs. For cantonal and communal income tax purposes, the regulations on participation relief are broadly similar, depending on the canton of residency.

Swiss Securities Tax

The sale of UBS Group AG Shares and the subsequent transfer of any UBS Group AG Shares may be subject to Swiss securities transfer tax (*Umsatzabgabe*) at a current rate of up to 0.15% if a bank or other securities dealer in Switzerland or Liechtenstein, as defined in the Swiss Federal Stamp Tax Act (*Stempelabgabengesetz*), is a party or an intermediary to the transaction and no exemption applies.

Swiss Wealth Tax and Capital Tax

Non-Resident Shareholders

Non-Resident Shareholders are not subject to any cantonal and communal wealth or annual capital tax because of the mere holding of the UBS Group AG Shares.

Resident Private Shareholders

Resident Private Shareholders are required to report the market value of their UBS Group AG Shares at the end of each tax period as part of their private wealth and which is subject to cantonal and communal wealth tax.

Domestic Commercial Shareholders

Domestic Commercial Shareholders are required to report their UBS Group AG Shares as part of their business wealth or taxable capital, as defined, and which is subject to cantonal and communal wealth or annual capital tax.

International Automatic Exchange of Information in Tax Matters

On November 19, 2014, Switzerland signed the Multilateral Competent Authority Agreement. The Multilateral Competent Authority Agreement is intended to ensure the uniform implementation of Automatic Exchange of Information (the “AEOI”). The Swiss Federal Act on the International Automatic Exchange of Information in Tax Matters (the “AEOI Act”) entered into force on January 1, 2017. The AEOI Act is the legal basis for the implementation of the AEOI standard in Switzerland.

The AEOI is being introduced in Switzerland through bilateral agreements or multilateral agreements. The agreements have been, and will be, concluded on the basis of guaranteed reciprocity, compliance with the principle of specialty (i.e., the information exchanged may only be used to assess and levy taxes (and for criminal tax proceedings)) and adequate data protection.

Based on such multilateral and bilateral agreements and the implementing laws of Switzerland, Switzerland collects and has collected data in respect of financial assets, which may include UBS Group AG Shares, held in, and income derived thereon and credited to, accounts or deposits with a paying agent in Switzerland for the benefit of individuals resident in an EU member state or in a treaty state since 2017, and has exchanged such data since 2018. Switzerland has signed and is expected to sign AEOI agreements with other countries. A list of such agreements of Switzerland in effect or signed and becoming effective can be found on the website of the State Secretariat for International Finance.

Swiss Facilitation of the Implementation of the U.S. Foreign Account Tax Compliance Act

Switzerland has concluded an intergovernmental agreement with the United States to facilitate the implementation of FATCA. The agreement ensures that the accounts held by U.S. persons with Swiss financial institutions are disclosed to the U.S. tax authorities either with the consent of the account holder or by means of group requests within the scope of administrative assistance. Information will not be transferred automatically in the absence of consent, and instead will be exchanged only within the scope of administrative assistance on the basis of the double taxation agreement between the United States and Switzerland. On September 20, 2019, the protocol of amendment to the double taxation treaty between Switzerland and the United States entered into force, allowing U.S. competent authority in accordance with the information reported in aggregated form to request all the information on U.S. accounts without a declaration of consent and on nonconsenting nonparticipating financial institutions.

Material U.S. Federal Income Tax Consequences

This section describes the material U.S. federal income tax consequences to U.S. Holders of exchanging their Credit Suisse Shares for UBS Group AG Shares in the transaction. The following discussion is based upon the Code, the Treasury Regulations and judicial and administrative authorities, rulings and decisions, all as in effect as of the date of this prospectus. These authorities may change, possibly with retroactive effect, and any such change could affect the accuracy of the statements and conclusions set forth in this discussion. This discussion does not address any tax consequences arising under the unearned income Medicare contribution tax or the alternative minimum tax, nor does it address any tax consequences arising under the laws of any state, local or non-U.S. jurisdiction, or under any U.S. federal laws other than those pertaining to income tax.

The following discussion applies only to U.S. Holders who hold Credit Suisse Shares as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment). Further, this discussion does not purport to consider all aspects of U.S. federal income taxation that might be relevant to U.S. Holders in light of their particular circumstances and does not apply to U.S. Holders subject to special treatment under the U.S. federal income tax laws (such as, for example, dealers or brokers in securities, commodities or foreign currencies, traders in securities that elect to apply a mark-to-market method of accounting, banks and certain other financial institutions, insurance companies, mutual funds, tax-exempt organizations, holders subject to the alternative minimum tax provisions of the Code, partnerships, S corporations or other pass-through entities or investors therein, regulated investment companies, real estate investment trusts, former citizens or residents of the United States, U.S. expatriates, holders whose functional currency is not the U.S. dollar, holders who hold Credit Suisse Shares as part of a hedge, straddle, constructive sale or conversion transaction or other integrated investment, retirement plans, individual retirement accounts, or other tax-deferred accounts, holders who acquired their Credit Suisse Shares pursuant to the exercise of employee stock options, through a tax qualified retirement plan or otherwise as compensation, or holders who actually or constructively own 5% or more of the Credit Suisse Shares or, following the transaction, 5% or more of the UBS Group AG Shares).

If an entity or arrangement treated as a partnership for U.S. federal income tax purposes holds Credit Suisse Shares, the tax treatment of a partner in such partnership generally will depend on the status of the partner and the activities of the partnership. Any entity treated as a partnership for U.S. federal income tax purposes that holds Credit Suisse Shares, and any partners in such partnership, should consult their own tax advisors regarding the tax consequences of the transaction to their specific circumstances.

Determining the actual tax consequences of the transaction to you may be complex and will depend on your specific situation and on factors that are not within the control of UBS Group AG or Credit Suisse. You should consult your own tax advisors as to the specific tax consequences of the transaction in your particular circumstances, including the applicability and effect of any state, local, non-U.S. and other tax laws and of changes, if any, in those laws.

The U.S. federal income tax consequences of the transaction to U.S. Holders will depend in part on whether Credit Suisse or UBS Group AG is or has been classified as a passive foreign investment company for U.S. federal income tax purposes (a “PFIC”). Except as discussed below under “ — *Passive Foreign Investment Company Considerations*,” this discussion assumes that neither Credit Suisse nor UBS Group AG is or has been classified as a PFIC for U.S. federal income tax purposes.

In addition, the U.S. federal income tax consequences of the transaction to U.S. Holders will depend on whether the transaction qualifies as a reorganization within the meaning of Section 368(a) of the Code (a “Reorganization”). To qualify as a Reorganization, the transaction must satisfy certain requirements, some of which are based on factual determinations and actions or events after the transaction, including events that are not within the control of UBS Group AG or Credit Suisse. One such requirement is the “continuity of business enterprise” (or “COBE”) requirement. In order to meet the COBE requirement, UBS Group AG must, directly or indirectly, either continue a significant line of Credit Suisse’s historic business or use a significant portion of Credit Suisse’s historic business assets in a business, in each case, within the meaning of the applicable Treasury Regulations. Whether this requirement will be met will depend on which of Credit Suisse’s business assets and lines of business UBS Group AG continues to use and operate and which it either sells or discontinues. UBS Group AG is still in the process of evaluating Credit Suisse’s operations and conducting integration and cost reduction planning, which may be affected by regulatory considerations and decisions, many of which are beyond the control of UBS Group AG and Credit Suisse. Given the uncertainty around which of Credit Suisse’s business assets and lines of business UBS Group AG will continue to use and operate, U.S. tax counsel is unable to render an opinion as to whether the transaction will qualify as a Reorganization. **Accordingly, no representation is made as to the U.S. federal income tax treatment of the transaction.** Completion of the transaction is not conditioned on the transaction qualifying as a Reorganization or on the receipt of an opinion of counsel to that effect, and neither UBS Group AG nor Credit Suisse has sought or received an opinion of counsel on the qualification of the transaction as a Reorganization. In addition, UBS Group AG and Credit Suisse have not sought and will not seek any ruling from the IRS regarding any matters relating to the transaction, and as a result, there can be no assurance that the IRS will not assert, or that a court would not sustain, a position that the transaction does not qualify as a Reorganization.

Tax Consequences if the Transaction Qualifies as a Reorganization

If the transaction qualifies as a Reorganization, a U.S. Holder generally will not recognize gain or loss on the receipt of UBS Group AG Shares in exchange for Credit Suisse Shares, except with respect to any cash received in lieu of a fractional UBS Group AG Share (as discussed below). The aggregate tax basis in the UBS Group AG Shares that a U.S. Holder receives in the transaction (including any fractional shares deemed received as described below) will equal the U.S. Holder’s aggregate adjusted tax basis in the Credit Suisse Shares surrendered in the transaction. A U.S. Holder’s holding period for the UBS Group AG Shares received in the transaction (including any fractional share deemed received as described below) will include the U.S. Holder’s holding period of the Credit Suisse Shares surrendered in the transaction. If a U.S. Holder acquired different blocks of Credit Suisse Shares at different times or at different prices, the UBS Group AG Shares received will be allocated pro rata to each block of Credit Suisse Shares, and the tax basis and holding period of each block of UBS Group AG Shares received will be determined on a block-for-block basis depending on the tax basis and holding period of the block of Credit Suisse Shares exchanged for such block of UBS Group AG Shares. A U.S. Holder may be required to report certain information to the IRS on the U.S. Holder’s U.S. federal income tax return for the tax year in which the transaction occurs and to maintain certain records related to the transaction.

If a U.S. Holder holds 5% or more by vote or by value (within the meaning of Treasury Regulations Section 1.367(a)-3(b)(1)(i)) of the UBS Group AG Shares immediately following the transaction, depending on events after the transaction, it is possible that U.S. federal income tax consequences differing from, and materially less favorable than, the consequences discussed in the previous paragraph may apply even if the transaction qualifies as a Reorganization, unless the U.S. Holder enters into a five-year gain recognition agreement in the form provided in Treasury Regulations Section 1.367(a)-8(c) and certain other conditions are met. Such a U.S. Holder should consult its own tax advisors regarding relevant tax consequences and reporting requirements.

Treatment of Fractional Shares

If a U.S. Holder receives cash in lieu of a fractional UBS Group AG Share, the U.S. Holder will be treated as having received such fractional UBS Group AG Share pursuant to the transaction and then as having sold such fractional UBS Group AG Share for cash. As a result, the U.S. Holder generally will recognize gain or loss equal to the difference between the amount of cash received and the tax basis allocated to the fractional UBS Group AG Share as set forth above. Such gain or loss generally will be capital gain or loss and will be long-term capital gain or loss if, as of the completion date, the U.S. Holder's holding period for such fractional UBS Group AG Share (including the holding period of Credit Suisse Shares exchanged therefor) exceeds one year. Long-term capital gains of individuals generally are eligible for reduced rates of taxation. The deductibility of capital losses is subject to limitations.

Tax Consequences if the Transaction is a Taxable Transaction

If the transaction does not qualify as a Reorganization, the exchange of Credit Suisse Shares for UBS Group AG Shares will be a taxable transaction for U.S. federal income tax purposes. In general, a U.S. Holder will recognize capital gain or loss for U.S. federal income tax purposes on the exchange of Credit Suisse Shares for UBS Group AG Shares in an amount equal to the difference, if any, between (i) the sum of the fair market value of the UBS Group AG Shares received in the exchange on the date of the exchange and the amount of cash received in lieu of a fractional UBS Group AG Share and (ii) the U.S. Holder's adjusted tax basis in the Credit Suisse Shares surrendered in the exchange. If a U.S. Holder acquired different blocks of Credit Suisse Shares at different times or at different prices, gain or loss will be determined separately for each such block. Such gain or loss generally will be capital gain or loss and will be long-term capital gain or loss if, as of the completion date, the U.S. Holder's holding period for its Credit Suisse Shares exceeds one year. Long-term capital gains of individuals generally are eligible for reduced rates of taxation. The deductibility of capital losses is subject to limitations.

Receipt of Foreign Currency

If a U.S. Holder receives cash in lieu of a fractional UBS Group AG Share and the payment is made in Swiss francs, the amount realized will be the U.S. dollar value of the payment received, translated at the spot rate of exchange on the date of the exchange. On the settlement date, the U.S. Holder will recognize U.S.-source foreign currency gain or loss (taxable as ordinary income or loss) equal to the difference (if any) between the U.S. dollar value of the amount received based on the exchange rates in effect on the date of the exchange and the settlement date. However, if the Credit Suisse Shares are traded on an established securities market and are exchanged by a cash basis U.S. Holder (or an accrual basis U.S. Holder that so elects), the amount realized will be based on the exchange rate in effect on the settlement date, and no exchange gain or loss will be recognized at that time. U.S. Holders should consult their own tax advisors regarding the treatment of foreign currency gain or loss, if any, on any Swiss francs received that are converted into U.S. dollars on a date subsequent to receipt.

Passive Foreign Investment Company Considerations

The U.S. federal income tax consequences of the transaction to U.S. Holders will depend in part on whether Credit Suisse or UBS Group AG is or has been classified as a PFIC.

In general, a non-U.S. corporation will be a PFIC with respect to a U.S. Holder if, for any taxable year in which the U.S. Holder held the non-U.S. corporation's shares, either (i) at least 75% of the gross income of the non-U.S. corporation for the taxable year is passive income or (ii) at least 50% of the value, determined on the basis of a quarterly average, of the non-U.S. corporation's assets is attributable to assets that produce or are held for the production of passive income (including cash). For purposes of determining whether a non-U.S. corporation is a PFIC, such non-U.S. corporation will be treated as holding its proportionate share of the assets and receiving directly its proportionate share of the income of any other corporation in which it owns, directly or indirectly, at least 25% (by value) of the stock.

If Credit Suisse were a PFIC during any taxable year in which a U.S. Holder holds or held Credit Suisse Shares, and if UBS Group AG were not a PFIC in the taxable year that includes the transaction, then the U.S. Holder may be required to recognize gain, if any, but not loss, on the exchange of Credit Suisse Shares for UBS Group AG Shares pursuant to the transaction, whether or not the transaction qualifies as a Reorganization. If gain were required to be recognized, then, in general, the amount of U.S. federal income tax on such gain would be increased by an interest charge to compensate for tax deferral, and the amount of income tax, before the imposition of the interest charge, would be calculated as if such gain were earned ratably over the period the U.S. Holder held its Credit Suisse Shares, and would be subject to U.S. federal income tax at the highest rate applicable to ordinary income for the relevant taxable years, regardless of the tax rate otherwise applicable to the U.S. Holder, subject to certain exceptions. If, however, Credit Suisse were a PFIC during any taxable year in which a U.S. Holder holds or held Credit Suisse Shares, and UBS Group AG were a PFIC for its taxable year that includes the day following the consummation of the transaction, then the consequences described in this paragraph should not apply (except with respect to cash received in lieu of a fractional UBS Group AG Share).

Different rules generally would apply to any U.S. Holder that has made a "qualified electing fund" election or "mark-to-market" election, if available, with respect to its Credit Suisse Shares.

According to Credit Suisse's Form 20-F for its 2022 taxable year, which was filed with the SEC on March 14, 2023, based on its audited consolidated financial statements, Credit Suisse believes that it was not treated as a PFIC for its 2021 or 2022 taxable years and, based on its audited consolidated financial statements and its current expectations regarding the value and nature of its assets and the sources and nature of its income, it does not anticipate becoming a PFIC for the 2023 taxable year. However, this conclusion is a factual determination made annually and thus may be subject to change. As a result, there can be no assurances that Credit Suisse has not been and will not be a PFIC for any taxable year, including the year in which the transaction occurs.

UBS Group AG believes that UBS Group AG Shares should not currently be treated as stock of a PFIC, and does not expect to become a PFIC in the foreseeable future. However, this conclusion is a factual determination made annually and thus may be subject to change.

U.S. Holders should consult their own tax advisors with respect to the respective statuses of Credit Suisse and UBS Group AG under the PFIC rules and the potential application of the PFIC rules to the exchange of Credit Suisse Shares for UBS Group AG Shares pursuant to the transaction in light of each such U.S. Holder's particular situation.

Information Reporting and Backup Withholding

A non-corporate U.S. Holder may be subject, under certain circumstances, to information reporting and backup withholding (currently at a rate of 24%) on cash received in lieu of a fractional UBS Group AG Share. A U.S. Holder generally will not be subject to backup withholding, however, if the U.S. Holder (1) furnishes a correct taxpayer identification number, certifies that the U.S. Holder is not subject to backup withholding and otherwise complies with all the applicable requirements of the backup withholding rules; or (2) provides proof that the U.S. Holder is otherwise exempt from backup withholding. Any amounts withheld under the backup withholding rules are not an additional tax and will generally be allowed as a refund or credit against the U.S. Holder's U.S. federal income tax liability, provided the U.S. Holder timely furnishes the required information to the IRS.

This discussion of the material U.S. federal income tax consequences of the transaction to U.S. Holders is not intended to be, and should not be construed as, tax advice. U.S. Holders should consult their own tax advisors with respect to the application of U.S. federal income tax laws to their particular situations as well as any tax consequences arising under the U.S. federal estate or gift tax rules, or under the laws of any state, local, non-U.S. or other taxing jurisdiction or under any applicable tax treaty.

THE MERGER AGREEMENT

The summary of the material provisions of the merger agreement below and elsewhere in this prospectus is qualified in its entirety by reference to the merger agreement, which is incorporated by reference into this prospectus. This summary does not purport to be complete and may not provide all of the information about the merger agreement. You are urged to read the merger agreement carefully and in its entirety because it is the legal document that governs the transaction.

The merger agreement and the summary of its terms in this prospectus have been included to provide information about the terms and conditions of the merger agreement. The terms and information in the merger agreement are not intended to provide any other public disclosure of factual information about UBS Group AG, Credit Suisse or any of their respective subsidiaries or affiliates. The covenants and agreements contained in the merger agreement are only for the purposes of the merger agreement and are qualified and subject to certain limitations and exceptions agreed to by UBS Group AG and Credit Suisse in connection with negotiating the terms of the merger agreement. Investors are not third-party beneficiaries under the merger agreement.

For the foregoing reasons, the covenants and agreements and any descriptions of those provisions should not be read alone or relied upon as characterizations of the actual state of facts or condition of UBS Group AG, Credit Suisse or any of their respective subsidiaries or affiliates. Instead, such provisions or descriptions should be read only in conjunction with the other information provided elsewhere in this prospectus or included as exhibits to the registration statement of which this prospectus constitutes a part.

Structure of the Transaction

The merger agreement provides that, subject to the terms and conditions of the merger agreement, upon completion, pursuant to the Merger Act and in accordance with the Special Ordinance, Credit Suisse will merge with and into UBS Group AG with UBS Group AG being the absorbing company which will continue to operate following completion and Credit Suisse being the absorbed company which will cease to exist upon completion. By operation of law, Credit Suisse's assets, liabilities and contracts, as well as all rights and obligations under such contracts, will be transferred to UBS Group AG in their entirety. Upon completion, UBS Group AG, as the surviving entity of the Merger, will retain its name and registered address, and the composition of the board of directors as well as the group executive management of UBS Group AG will remain unchanged.

Pursuant to the merger agreement, completion will occur on the date in which entries into the Commercial Register in respect to both UBS Group AG and Credit Suisse have been made, subject to the satisfaction (or waiver (to the extent waivable) by UBS Group AG) of the conditions to completion.

Merger Consideration

Upon completion, subject to the payment of certain fees to the Credit Suisse Depository in the case of Credit Suisse ADSs, Credit Suisse shareholders will receive, for each Credit Suisse Share issued and outstanding immediately prior to completion, the merger consideration consisting of 1/22.48 UBS Group AG Shares, meaning that a Credit Suisse shareholder would receive 1 UBS Group AG Share for every 22.48 Credit Suisse Shares.

The merger consideration will be adjusted to reflect the economic effect of any share split, share combination, subdivision, reclassification, stock dividend, exchange of shares or other similar transactions involving UBS Group AG Shares or Credit Suisse Shares that (i) is approved after the date of the merger agreement but prior to completion and (ii) is entered into the commercial register, or has a record or effective date that occurs during such period. The UBS Group AG Shares delivered to Credit Suisse shareholders in the transaction will receive any future dividends paid by UBS Group AG on the same basis as the UBS Group AG Shares currently outstanding (other than with respect to dividends with an ex-dividend date that is prior to completion).

Share Register

UBS Group AG will register in its share register any holder of Credit Suisse Ordinary Shares subject to the UBS Group AoA (as defined below). Applications for registration of holders of Credit Suisse Ordinary Shares that are pending at completion will be treated in accordance with the UBS Group AoA.

Implementation of the Exchange

UBS Group AG will appoint an exchange agent, which may be a subsidiary of UBS Group AG (the “Exchange Agent”) to implement the exchange of Credit Suisse Ordinary Shares for the merger consideration. UBS Group AG will use reasonable best efforts to ensure that the merger consideration is credited to the Exchange Agent as promptly as practicable following the completion. Credit Suisse will provide to the Exchange Agent all information reasonably necessary for it to perform its function as specified in the merger agreement and as specified in any agreement with the Exchange Agent. With respect to the Credit Suisse ADSs, in accordance with the terms of the Credit Suisse Depositary Agreement, the Credit Suisse Depositary will provide the exchange services necessary to implement the exchange of Credit Suisse ADSs for UBS Group AG Shares.

No Fractional UBS Group AG Shares

Credit Suisse shareholders will not receive any fractional UBS Group AG Shares in the transaction. Each Credit Suisse shareholder who, based on its shareholding at completion and on the merger consideration, does not receive an integral number of UBS Group AG Shares will receive rights corresponding to the resulting fraction of 1/22.48 of a UBS Group AG Share or a multiple thereof (each a “Share Fraction Right”). The Exchange Agent and Credit Suisse Depositary, as applicable, will (i) sell all UBS Group AG Shares covering Share Fraction Rights on the SIX or the NYSE, as applicable, (ii) calculate the implied value of a Share Fraction Right based on the cash received from such sale and (iii) organize the transfer of such amount of cash proceeds to the subject Credit Suisse shareholders as soon as practically feasible following the closing date. Alternatively, the Exchange Agent may decide to transfer UBS Group AG Shares covering Share Fraction Rights to custodians holding shares of multiple Credit Suisse shareholders so that such custodians may handle Share Fraction Rights held by their customers.

Certain Credit Suisse shareholders holding 22 Credit Suisse Shares or less who want to continue to be shareholders after closing will by default receive a cash only consideration, but may request to receive one UBS Group AG Share upon payment of a Swiss franc amount equivalent to the difference between their Share Fraction Rights and one UBS Group AG Share, determined based on the volume-weighted average price of one UBS Group AG Share at SIX on the trading day preceding the closing date, and providing (i) proof of their holding, (ii) a confirmation that they do not hold Credit Suisse Shares elsewhere and (iii) evidence that this number of Credit Suisse Shares was already held on March 19, 2023. Holders of Credit Suisse Ordinary Shares who are residents of the United States and holders of Credit Suisse ADSs are each not entitled to make such request.

Treatment of Credit Suisse Equity Awards

After completion, all Credit Suisse Equity Awards outstanding under any Credit Suisse Incentive Plan will (A) be converted into a share award covering, or a right to receive consideration by reference to, UBS Group AG Shares or (B) in relation to awards in the form of options or share appreciation rights, be converted into awards that pertain and apply to UBS Group AG Shares, and, in each case, to the extent legally permissible, will continue to remain outstanding in accordance with their current terms, including the current vesting schedule and existing performance conditions (subject to amendments approved by UBS Group AG as are reasonably necessary to reflect the impact of the transaction). We expect that Credit Suisse Equity Awards will be converted into a share award covering, or a right to receive consideration by reference to, UBS Group AG Shares using the same exchange ratio as the merger consideration. Any taxes, social security contributions or pension scheme contributions in connection with the settlement of the Credit Suisse Equity Awards, as applicable, will be deducted before the settlement with UBS Group AG Shares or cash.

To the fullest extent permitted by applicable law, the Credit Suisse board of directors will make all necessary adjustments to the Credit Suisse Equity Awards, the Credit Suisse Incentive Plans and/or all of the relevant governing documents to accomplish the foregoing and will exercise any and all discretion pursuant to the Credit Suisse Incentive Plans and relevant governing documents that no such Credit Suisse Equity Awards vest or become exercisable earlier than their scheduled vesting or exercise date by reason of the transaction and no restrictions on Credit Suisse Equity Awards will lapse. To the extent that, notwithstanding the foregoing, the Credit Suisse Equity Awards vest or become exercisable in connection with the transaction, the Credit Suisse board of directors will exercise any and all available discretion pursuant to the Credit Suisse Incentive Plans and relevant governing documents such that (A) such Credit Suisse Equity Awards are prorated to reflect the unexpired portion of any vesting period, (B) any performance conditions applicable to such Credit Suisse Equity Awards are tested based on actual performance through the consummation of the transaction to the fullest extent practicable (and any determination made in respect of the satisfaction of such performance conditions is approved by UBS Group AG) and (C) no restrictions applicable to a Credit Suisse Equity Award lapse, and that any Credit Suisse Equity Awards exercised or vested will be settled by reference to and in the form of merger consideration so that the Credit Suisse Equity Award holders will receive, for each Credit Suisse Ordinary Share, the merger consideration otherwise receivable by Credit Suisse shareholders.

Cessation of Trading in Credit Suisse ADSs

Unless otherwise mandated by the NYSE, at the opening of the first trading day following the entry of the transaction in the Swiss Federal Commercial Registry Office, trading in the Credit Suisse ADSs on the NYSE will cease.

Shareholder's Meeting

Pursuant to the Special Ordinance, no shareholders' approval is required in connection with the conclusion of the merger agreement and completion.

Conditions to Completion

Completion is subject to the receipt of the Regulatory Approvals and Governmental Approvals described in the section entitled "*The Merger — Approvals Required for the Transaction*", granting by FINMA of certain separate arrangements, certain specified regulatory support from FINMA and other regulators and the following closing conditions:

- the Credit Suisse board of directors having, to the fullest extent permitted by law, (a) made all necessary adjustments to the Credit Suisse Equity Awards, the Credit Suisse Cash Awards, the Credit Suisse Incentive Plans, the Credit Suisse Cash Plans and all relevant governing documents, and (b) exercised any available discretion pursuant to the Credit Suisse Incentive Plans, Credit Suisse Cash Plans and relevant governing documents such that:
 - no Credit Suisse Equity Awards or Credit Suisse Cash Awards vest, become exercisable or deliver payment to an employee earlier than their scheduling vesting, exercise or payment date by reason of the merger agreement or the transaction; and
 - if, notwithstanding the foregoing, any Credit Suisse Equity Award or Credit Suisse Cash Award will vest, become exercisable or deliver payment to an employee in connection with the merger agreement or the transaction: (i) time pro-rating is applied to such Credit Suisse Equity Awards or Credit Suisse Cash Awards, to reflect the unexpired portion of any vesting period; (ii) any performance conditions applicable to such Credit Suisse Equity Awards or Credit Suisse Cash Awards are tested based on actual performance through the consummation of the transaction to the fullest extent practicable (with any determination made in respect of the satisfaction of such performance conditions having been approved by UBS Group AG); and (iii) no restrictions applicable to any such Credit Suisse Equity Award or Credit Suisse Cash Award lapse;

- no circumstances having arisen and no events having occurred, and no circumstances or events having been reported by Credit Suisse or otherwise come to the attention of UBS Group AG that, considered individually or in conjunction with other requirements, obligations, circumstances or events, would reasonably be capable of having a Material Adverse Effect on Credit Suisse, including its direct or indirect subsidiaries;
- the FINMA Bail-in Measures Condition;
- nonrestricted access to unsecured Central Bank liquidity tools from announcement throughout the integration period, including access to liquidity tools in the U.S.;
- if required by applicable law, the SEC having declared the Form F-4 (of which this prospectus forms a part) effective, and the SEC having not taken any action to suspend effectiveness; and
- as at completion, the absence of any order or injunction having been issued by any governmental entity or a competent court that prohibits completion and is enforceable in Switzerland.

UBS Group AG does not expect that the separate arrangements except the Loss Protection Agreement will be finalized in their entirety prior to the completion of the transaction. Nonetheless, UBS Group AG expects to complete the transaction and continue to work with the Swiss government and its representatives to finalize the separate arrangements following the completion. For further information, see the sections in this prospectus entitled “*Risk Factors — No assurance can be given regarding the terms of the separate arrangements contemplated to be granted by FINMA, or when or if FINMA will grant such separate arrangements at all*” beginning on page 26 and “*The Merger — Plans Following Completion*” beginning on page 53.

For purposes of the merger agreement, a “Material Adverse Effect” means any change, event or development that individually or taken together with all such other changes, events or developments, has or would reasonably be expected to have a material adverse effect on the business, asset, cash position, liabilities, financial condition, results of operation, capitalization, the capacity or authority to execute the merger agreement and effect the transaction, or the ability to obtain any governmental approval required in connection with completion.

Any such conditions may, to the extent waivable, be waived by UBS Group AG.

Cooperation for the Purposes of Satisfaction of Conditions to Completion

UBS Group AG and Credit Suisse have agreed to use all reasonable efforts to ensure that the closing conditions are fulfilled as soon as reasonably practicable after the date of the merger agreement. For the purposes of satisfying the closing conditions, Credit Suisse undertakes to (and will procure that each member of the Credit Suisse Group, and any other person who may be reasonably required to assist, will):

- use all reasonable endeavors to cooperate with UBS Group AG and promptly provide such assistance and access to all information and personnel as may reasonably be requested or required by UBS Group AG, or on behalf of UBS Group AG in connection with (i) ensuring that the closing conditions are fulfilled, and (ii) making any other submissions, notifications or filings that are reasonably required to be submitted, or it is prudent to submit, to a relevant governmental entity, including for the purposes of responding to requests for further information by a government entity;
- to the extent permitted by applicable law, rules or regulations, keep UBS Group AG reasonably informed of any material communication such person has (whether written or oral) with any governmental entity in connection with the transaction; and
- notify UBS Group AG immediately (but in any event within one trading day) upon becoming aware that circumstances have arisen that are reasonably likely to result in any of the closing conditions not being satisfied prior to the end date together with such details of the relevant circumstances as are in Credit Suisse’s possession at the relevant time.

Conduct of Business Pending the Transaction

General

From the date of the merger agreement until completion, Credit Suisse is required to conduct its and the Credit Suisse Group's business in the ordinary course and use its reasonable best efforts to (i) preserve intact its commercial integrity and present business organization and protect its assets and goodwill, (ii) keep available the services of its officers, employees and consultants, and (iii) maintain good relationships with its customers, clients, suppliers, regulators and others having significant business relationships with Credit Suisse.

Without limiting the generality of the foregoing, except as expressly contemplated by the merger agreement, unless with UBS Group AG's prior written consent (which consent may not be unreasonably withheld) or for the implementation of decisions taken or ratified by the Credit Suisse board of directors prior to the date of the merger agreement, Credit Suisse shall not, nor shall it cause or allow to do or to be done, any of the following:

- amend its articles of association (other than amendments of its articles of association reflecting the issuance of Credit Suisse Shares in 2022 under the Credit Suisse Incentive Plans), organizational regulations or any other constitutional or organizational document (whether by merger, consolidation or otherwise);
- issue, sell or otherwise deliver, or authorize the issuance, sale or other delivery of, any Credit Suisse securities or securities of any of its subsidiaries, or create, allot, issue, or grant any Credit Suisse Equity Awards other than the issuance of Credit Suisse Shares pursuant to Credit Suisse Equity Awards outstanding on the date of the merger agreement under the Credit Suisse Incentive Plans with no such Credit Suisse Equity Awards to have any terms or conditions that would result in the accelerated vesting, settlement or exercise in connection with the transaction;
- amend any term of any Credit Suisse security or securities of any of its subsidiaries (whether by merger, consolidation or otherwise);
- (i) acquire any material assets or property other than (a) in the ordinary course of business or (b) as required by contracts or agreements in effect on the date of the merger agreement; or (ii)(a) sell, lease, license, dispose of or otherwise transfer any material assets or property, other than in the ordinary course of business or as required by existing contracts or agreements in effect on the date of the merger agreement or (b) sell, assign, license or otherwise transfer any material intellectual property owned by or licensed to Credit Suisse except pursuant to contracts or agreements in effect on the date of the merger agreement;
- undertake any corporate, commercial or operational reorganization of any member of the Credit Suisse Group, or the discontinuation of any part of its business;
- incorporate any new subsidiary or create any other new member of the Credit Suisse Group or enter into any new partnership, joint venture or similar arrangement (other than special purpose vehicles in the ordinary course of business in accordance with existing business plans);
- undertake any material alteration, amendment or variation of the accounting policies of any member of the Credit Suisse Group unless such alteration, amendment or variation is required by law or relevant accounting requirements;
- undertake any capital expenditure which, in addition to amounts disclosed to UBS Group AG, is in excess of CHF 10,000,000;
- incur, guarantee or otherwise become liable for any indebtedness for borrowed money other than in the ordinary course of business or by using any central bank liquidity facility;
- create or incur any encumbrance on any material assets or property other than in the ordinary course of business;

- enter into any agreement or arrangement that limits or otherwise restricts in any material respect Credit Suisse or any of its subsidiaries (or that could, after completion, limit or otherwise restrict in any material respect UBS Group AG, Credit Suisse or any of their respective subsidiaries or any successor thereto) from engaging or competing in any line of business, in any location or with any person;
- enter into or terminate any contract or arrangement of any member of the Credit Suisse Group (i) having a value or involving or likely to involve expenditure in excess of CHF 3,000,000 per annum; or (ii) which cannot be performed within its terms within 12 months after the date on which it is entered into or undertaken or cannot be terminated on less than 12 months' notice; or (iii) which may result in any material change in the nature or scope of the operations of the Credit Suisse Group; or the modification of an existing contract or arrangement of any member of the Credit Suisse Group which would itself fall, or cause the contract or arrangement concerned to fall, within any of (i) to (iii) above;
- reduce the level of financial or other resources allocated to regulatory remediation or other compliance programs or commitments or fail to carry out or deviate from such programs or commitments;
- enter into or grant any customer or other counterparty a new credit facility or credit line in an amount exceeding CHF 100,000,000 for investment grade and CHF 50,000,000 for non-investment grade (or increase any such credit facility or credit line above these amounts);
- amend any of the Credit Suisse Incentive Plans except as may be required in order to comply with applicable provisions in the merger agreement;
- (i) settle, or propose to settle, any action, suit, investigation, proceeding or claim that is above CHF 1,000,000 taken as a whole or that relates to the transaction or (ii) intentionally waive, release or assign any material right or claim;
- institute (i) any amendment or termination of any employee benefit plan, except as required by law, or adoption of any new employee benefit plan or any material individual employment, severance, change in control or consulting agreement (other than in the ordinary course of business), or material amendment to the terms and conditions of employment (including remuneration, pension entitlements and other benefits) of the employees of the Credit Suisse Group (other than in the ordinary course of business to reflect inflationary increases); or (ii) enter into any new labor or collective bargaining agreement or material amendment or termination of any such existing agreement, except as required by law or by the terms thereof;
- fail to maintain in full force or comply with any policies of insurance entered into for the benefit of Credit Suisse and/or its subsidiaries;
- submit any applications for any new authorizations, licenses, permissions, exemptions or similar to any governmental entity;
- do or fail to do anything which would be reasonably likely to result in the termination, revocation, suspension, modification or non-renewal of any material license or consent held by any member of the Credit Suisse Group and issued or granted by a governmental entity; or
- resolve, commit or agree to do any of the foregoing.

Interaction with regulators

From the date of the merger agreement, and without prejudice to the above, to the extent Credit Suisse:

- (i) enters into, or takes part in, any material correspondence, meeting (whether physical or virtual) to which Credit Suisse has received prior notice, or other interaction with any governmental entity in relation to either (w) the transaction, (x) a compliance matter, including cyberattack, hack, outage or system's failure, (y) any remediation plan, regulatory change program or other regulatory commitment

entered into with any governmental entity or (z) any litigation or investigation involving, or pending before, a governmental entity (each of (w), (x), (y) and (z) being a “Regulatory Interaction Matter”); or

- (ii) seeks to deviate from any Regulatory Interaction Matter in a material fashion;

then, in each case, Credit Suisse is required, to the extent practicable and permissible under any applicable laws, rules or regulations: (i) notify UBS Group AG as far as possible in advance of such Regulatory Interaction Matter, (ii) involve UBS Group AG in its preparation of any such Regulatory Interaction Matter (including consulting with UBS Group AG in advance and taking into account UBS Group AG’s comments) and (iii) permit UBS Group AG’s active participation in such correspondence, meetings with a governmental entity in relation to such Regulatory Interaction Matter.

Information and Assistance

To the extent permissible under applicable law, from the date of the merger agreement and until completion, Credit Suisse:

- will procure that UBS Group AG and its representatives are provided with such information and assistance as they may reasonably request (i) to plan (but not implement) all aspects of the integration of the Credit Suisse Group with the UBS Group following completion, (ii) to develop appropriate arrangements for the retention of Credit Suisse Group employees following completion, (iii) to plan for any repayment, replacement and/or amendment of the Credit Suisse Group financing facilities at or following completion, including assistance arranging discussions between UBS Group AG and the relevant financing providers and bond or security trustees, and (iv) to evaluate the status and performance of Credit Suisse Group’s IT infrastructure environment and shall as reasonably practicable and in accordance with Credit Suisse’s escalation procedures inform UBS Group AG of any material cyberattack, hack, outage or system malfunction;
- in order to provide UBS Group AG with sufficient visibility on the financial performance of the Credit Suisse Group with a view to preserving their value, will keep UBS Group AG reasonably informed of the overall financial performance of the Credit Suisse Group prior to completion by (i) providing UBS Group AG with aggregated summary financial information in relation to the Credit Suisse Group within five trading days of the end of each calendar month, and (ii) meeting with representatives of UBS Group AG regularly to discuss such financial information and other matters’ relation to the performance of the Credit Suisse Group; and
- in order to provide UBS Group AG with sufficient visibility on the progress on its various remediation programs, Credit Suisse Group will keep UBS Group AG informed of the progress of such programs including (i) providing UBS Group AG with a weekly update on weekly actions or items undertaken, and (ii) meeting with representatives of UBS Group AG regularly and at least weekly to discuss such remediation programs and other compliance matters requested by UBS Group AG.

Integration

The merger agreement provides that, following the execution of the merger agreement, an integration committee (which we refer to as the “integration committee”) will be formed to plan and oversee the implementation of the integration of Credit Suisse’s business into UBS Group AG. Matters related to the integration of businesses of UBS Group AG and Credit Suisse will be communicated and discussed first at such integration committee. Unless otherwise agreed by UBS Group AG and Credit Suisse, the integration committee will consist of up to nine members, up to five to be designated by UBS Group AG and up to four to be designated by Credit Suisse. The integration committee will be chaired by a member designated by UBS Group AG. UBS Group AG and Credit Suisse have agreed to establish the authorities and procedures of the integration committee in good faith and cooperation promptly after entering into the merger agreement.

No Solicitation

The merger agreement generally restricts Credit Suisse's ability to directly or indirectly (i) solicit, initiate, encourage or facilitate any inquiries or proposals from, or discuss or negotiate, or continue discussions or negotiations with, any third party relating to any restricted transaction (as defined below) or take or continue any other action which may encourage or facilitate a restricted transaction, (ii) provide or continue the provision of any information to any third party that may be considering to propose a restricted transaction or grant or continue to grant access to any such third party to Credit Suisse's businesses, properties, assets, books or records (other than contacts and exchanges made in the ordinary course of business on matters which are not related to a restricted transaction) or (iii) approve or enter into any binding or non-binding letter of intent, memorandum of understanding, agreement or other arrangement relating to a restricted transaction.

For purposes of the merger agreement, a "restricted transaction" means any transaction involving a sale, transfer or other disposal, or the creation of an obligation for a sale, transfer or other disposal of Credit Suisse Shares or of any of Credit Suisse's material assets or businesses, whether directly or indirectly or any other transaction which may compete with, or impair, hinder or delay completion or impair the success or which may substantially change the businesses, assets, liabilities, financial position, revenues or prospects of the Credit Suisse Group or impair the value of Credit Suisse Shares.

The merger agreement provides that upon receipt of a proposal from a third party for a restricted transaction or for negotiations with respect to a restricted transaction, Credit Suisse must promptly (but no later than 24 hours after receipt) notify UBS Group AG in writing of any such proposal, which must inform UBS Group AG of the fact and the details of such approach (including any price, terms and conditions indicated). Further, Credit Suisse has agreed to keep UBS Group AG fully informed, on a prompt basis, of any material development with respect thereto, within 24 hours after receipt thereof.

If Credit Suisse receives a proposal from a third party relating to a merger between such third party and Credit Suisse or to a tender offer for all Credit Suisse Shares prior to completion, Credit Suisse is permitted to provide information with respect to Credit Suisse under a customary confidentiality and standstill agreement, which will not contain any terms that impair Credit Suisse's ability to comply with its obligations under the merger agreement, and to participate in discussions or negotiations with the third party regarding such proposal if (i) Credit Suisse has discharged its notification obligation in respect of such proposal, (ii) the Credit Suisse board of directors has properly determined that the transaction proposed is more favorable to the Credit Suisse shareholders and not less favorable to the financial stability of the Swiss financial market, taking into account all the terms and conditions of the proposal, including the termination fee, transaction certainty and execution risks of the alternative proposal, conditions to the consummation and regulatory, financing and other aspects of the proposal and (iii) Credit Suisse has notified UBS Group AG in writing of its intention with the third party, specifying the reasons therefor, and has given UBS Group AG five trading days following such notification to submit to Credit Suisse a binding proposal for an alternative merger agreement, so that the merger agreement is at least as favorable to the Credit Suisse shareholders and the financial stability of the Swiss financial market as the alternative transaction. The merger agreement provides further that only if Credit Suisse does not receive during such five trading day period an updated offer from UBS Group AG, Credit Suisse may enter into an agreement with the third party and retrieve its public support to the transaction, in which case the termination fee (as described below in this section) will immediately become due and payable by Credit Suisse to UBS Group AG.

Further Assurances

Subject to, and without limiting the generality of, each other term and condition set forth in the merger agreement, UBS Group AG and Credit Suisse have agreed to cooperate with each other and use (and will cause their respective subsidiaries to use) their respective reasonable best efforts to take or cause to be taken all actions, including but not limited to, in connection with any financial industry supervisory and regulatory reporting or filing duties, communication and dealing with rating agencies, as well as any report or filings to be performed

according to securities laws, and do or cause to be done all things, reasonably necessary, proper or advisable on its part under the merger agreement and applicable laws to cause completion and the completion of the other transactions contemplated by the merger agreement to occur as soon as practicable, including executing and delivering all such other agreements, certificates, instruments and documents as either UBS Group AG or Credit Suisse reasonably may request in order to carry out the intent and accomplish the purposes of the merger agreement.

Credit Suisse will further grant access to UBS Group AG, subject to applicable confidentiality provisions set forth in the merger agreement, in case of a transfer of nonpublic information, to all information reasonably required by UBS Group AG to prepare the integration of Credit Suisse Group's business.

Directors and Officers Insurance

The merger agreement provides that UBS Group AG will, or will cause Credit Suisse to obtain prior to completion, effective as of completion, "tail" insurance policies with a claims period of six years following completion with at least the same coverage and amounts as the current policies of directors' and officers' liability insurance maintained by Credit Suisse, or an extension of the existing insurance policies, in each case with respect to claims arising out of or relating to events that occurred before or at completion (including in connection with the negotiation and the conclusion of the merger agreement and the implementation of the transaction). The annual premium will be negotiated with best efforts to achieve a reasonable solution at arm's length, it being understood, however, that Credit Suisse will notify any and all events currently known as circumstances that may potentially give rise to claims under its current directors' and officers' liability insurance policy before its expiry, in order to procure that the premium can be reduced as much as possible.

Certain Other Covenants and Agreements

The merger agreement contains certain other covenants and agreements, including the following covenants and agreements, among others, all of which are subject to certain exceptions and qualifications as described in the merger agreement:

- Credit Suisse will (i) conduct its and the Credit Suisse Group's business in the ordinary course and use its reasonable best efforts to (x) preserve intact its commercial integrity and present business organization and protect its assets and goodwill, (y) keep available the services of its officers, employees and consultants and (z) maintain good relationships with its customers, clients, suppliers, regulators and others having significant business relationships with Credit Suisse, (ii) not take certain specified actions without UBS Group AG's prior written consent (which may not be unreasonably withheld), (iii) provide certain information and assistance to UBS Group AG in connection with integration and to provide UBS Group AG with sufficient visibility on the financial performance of the Credit Suisse Group and on the progress of its various remediation programs and (iv) use commercially reasonable efforts to retain key personnel as designed by UBS Group AG until completion (with the understanding that any retention plan or retention-related mechanism for Credit Suisse Group's employees will be subject to UBS Group AG's prior written consent);
- Subject to applicable laws, UBS Group AG has the right to require the appointment of key personnel to Credit Suisse Group's legal entities for the purpose of integration planning and ensuring compliance with the requirements of the provisions set forth in the merger agreement;
- To the extent Credit Suisse (i) enters into, or takes part in, any material correspondence, meeting (whether physical or virtual) to which Credit Suisse has received prior notice or other written interaction with any governmental entity in relation to either (A) the merger, (B) a compliance matter, including cyberattack, hack, outage or systems failure, (C) any remediation plan, regulatory change program or other regulatory commitment with a governmental entity or (D) any litigation or investigation involving, or pending before, a governmental entity, or (ii) seeks any material deviation from any of the foregoing, then in each

such case, Credit Suisse will, to the extent practicable and permissible under applicable laws, rules or regulations: (x) notify UBS Group AG as far as possible in advance of such interactions; (y) involve UBS Group AG in its preparation of any such interactions (including consulting with UBS Group AG in advance and taking into account UBS Group AG's comments); and (z) permit UBS Group AG's active participation in such correspondence or meetings with a government entity related to such matters;

- The parties will form an integration committee to plan and oversee the implementation of the integration of Credit Suisse Group's business into UBS Group AG;
- UBS Group AG and Credit Suisse have agreed that the content of the negotiations of the merger agreement and matters related thereto, including any documents and information exchanged in this regard, will be treated as confidential by UBS Group AG and Credit Suisse, subject to any legal or regulatory obligations to provide information to any governmental entity;
- Each of UBS Group AG and Credit Suisse will bear its own costs and costs that are jointly incurred will be evenly divided between UBS Group AG and Credit Suisse;
- Subject to any constraints imposed by the fiduciary duties of the members of the board of directors of UBS Group AG and Credit Suisse, as the case may be, both UBS Group AG and Credit Suisse will publicly and actively support the transaction and will refrain from any acts, filings or statements that could adversely affect the success of the transaction;
- Each of the UBS Group AG board of directors and the Credit Suisse board of directors will apply best efforts in performing their duties under the merger agreement;
- Except as required by applicable legal requirements or by the requirements of any stock exchange on which its securities are listed, Credit Suisse Group will not make any press release or public announcement or any other communication with the news media in respect of the merger agreement or the transaction without the prior written consent of UBS Group AG;
- If any person other than UBS Group AG and Credit Suisse (such persons including but not limited to shareholders of either UBS Group AG or Credit Suisse) raises claims against either UBS Group AG or Credit Suisse, including but not limited to a member of the board of directors or the management of either UBS Group AG or Credit Suisse in connection with the transaction, UBS Group AG and Credit Suisse undertake to fully support and closely cooperate with each other in order to defend their position. Credit Suisse will not settle any such claim without the consent of UBS Group AG;
- UBS Group AG and Credit Suisse will cooperate with each other and use (and will cause their respective subsidiaries to use) reasonable best efforts to take or cause to be taken all actions, including but not limited to, mitigating any tax implications in connection with pre-closing tax structuring, structuring of the merger transaction as well as integration actions including preparation and filing of tax rulings, tax filings and notifications, executing and delivering all other agreements, certificates, instruments and documents as either UBS Group AG or Credit Suisse may reasonably request in order to carry out the intent and accomplish the purposes of the merger agreement;
- UBS Group AG and Credit Suisse will each file the application for the entry in the Commercial Register of Zürich timely;
- The employees and employee representatives of UBS Group AG and Credit Suisse will be informed and consulted by either UBS Group AG or Credit Suisse, as applicable, in accordance with applicable legal requirements in any jurisdiction and any collective bargaining agreement, national standard employment agreement or the equivalent; and
- UBS Group AG and Credit Suisse will cooperate in good faith and provide prompt and reasonable assistance to the other to enable UBS Group AG and Credit Suisse and their subsidiaries to undertake any required information and consultation exercise with their respective employees or representatives that may be required in relation to or by reason of the transaction, and will share such information as may reasonably be required in order to discharge any information and consultation obligation.

Termination of the Merger Agreement

The merger agreement may be terminated by either UBS Group AG (by decision of the UBS Group AG board of directors) or Credit Suisse (by decision of the Credit Suisse board of directors), only if the closing conditions have not been satisfied (or waived (to the extent waivable) by UBS Group AG) by December 31, 2023, other than as a result of the action or omission attributed to the party seeking termination. UBS Group AG may not seek to terminate the merger agreement as a result of the failure of the FINMA Bail-in Measures Condition without prior consultation with FINMA. UBS Group AG and Credit Suisse have agreed that any non-obtainment of any Regulatory Approval due to the Regulatory Approval Adverse Condition or any Governmental Approval Adverse Condition will not constitute a breach by UBS Group AG of the merger agreement or qualify as an action or omission of UBS Group AG in the event of the termination of the merger agreement.

Termination Fee

In the event of a termination fee event (as defined below), Credit Suisse has agreed to pay UBS Group AG a termination fee of either (i) CHF 100,000,000, or (ii) if the termination occurs because a third party has prior to completion either announced or published an offer to Credit Suisse shareholders or to Credit Suisse to acquire more than 50% of Credit Suisse's business, in the amount of 50% of the explicit or implied premium offered by such third party. Credit Suisse has agreed to pay any termination fee within 20 trading days of the date on which the termination fee becomes payable. However, the merger agreement provides that if Credit Suisse enters into an agreement with a third party with respect to a restricted transaction, which is subject to certain terms and conditions as set forth in the merger agreement and also described in the section above entitled "*No Solicitation*," the termination fee will immediately become due and payable by Credit Suisse to UBS Group AG. Termination fee will be payable plus VAT, if applicable, and will not be reduced on account of any taxes unless required by applicable law.

For the purposes of this prospectus, a "termination fee event" means the event where (i) the merger agreement is terminated due to non-fulfillment or non-waiver of a closing condition, (ii) the merger agreement is terminated and/or the transaction is not completed due to a material breach by Credit Suisse of the merger agreement or (iii) the merger agreement is terminated and/or the transaction is not completed due to a restricted transaction.

Governing Law and Jurisdiction

The transaction and the merger agreement, and any claims arising out of or in connection therewith, will be governed by and construed in accordance with the substantive laws of Switzerland without giving effect to the provisions of any conflict of laws rules that might lead to the application of the laws of any other jurisdiction.

Any dispute arising out of or in connection with the transaction or the merger agreement must be submitted to the exclusive jurisdiction of the courts of the City of Zurich, Switzerland, venue being Zurich 1. Any claims by shareholders based on the Merger Act or any other law which arise out of or are made in connection with the transaction or the merger agreement, must be submitted to the exclusive jurisdiction of the courts of the City of Zurich, Switzerland, venue being Zurich 1.

Amendments; Waivers

Any modifications to, or waivers of any provisions of, the merger agreement (including any amendment to an essential term of the merger agreement) must be made in writing and will be subject to approval by the UBS Group AG board of directors and the Credit Suisse board of directors.

No waiver of any of the provisions of the merger agreement is to be deemed or constitute a waiver of any other provision and no waiver will constitute a continuing waiver. No waiver will be binding unless executed in writing by the party making the waiver and delivered to the other party pursuant to the merger agreement.

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

All amounts in this section are in US dollars (USD) unless otherwise specified. The abbreviation “bn” is used to represent “billion”. The abbreviation “CHF” is used to represent “Swiss francs”. Numbers presented throughout this section may not add up precisely to the totals provided in the tables and text due to rounding.

The following unaudited pro forma condensed combined financial information is intended to illustrate the effect of the transaction (as defined below) and comprises the following:

- the unaudited pro forma condensed combined income statement for UBS Group AG for the year ended 31 December 2022, prepared as if the transaction occurred on 1 January 2022; and
- the unaudited pro forma condensed combined balance sheet as of 31 December 2022 for UBS Group AG, prepared as if the transaction had occurred at that date.

On March 19, 2023, UBS Group AG (“UBS”) and Credit Suisse Group AG (“Credit Suisse”) entered into a merger agreement that provides for the acquisition of Credit Suisse by UBS. On the terms and subject to the conditions set forth in the merger agreement and in accordance with applicable provisions of the Swiss law, including the emergency ordinance issued by the Swiss Federal Council on March 19, 2023, Credit Suisse will merge with and into UBS with UBS being the absorbing company which will continue to operate and Credit Suisse being the absorbed company which will cease to exist (the “transaction”). Upon completion of the transaction, each registered ordinary Credit Suisse share with a nominal value of CHF 0.04 issued and outstanding immediately prior to completion (including Credit Suisse Shares represented by Credit Suisse ADSs, subject to the payment of certain fees to the Credit Suisse Depository) will be converted into the right to receive the merger consideration consisting of 1/22.48 registered ordinary shares of UBS, each of which has a nominal value of USD 0.10.

The transaction will be accounted for by UBS, as the legal and accounting acquirer, using the acquisition method pursuant to IFRS 3 “Business Combinations.” Under the acquisition method, the acquirer records all the identifiable assets acquired and liabilities assumed, including contingent liabilities, at their respective fair values on the completion date, with limited exceptions. Adjustments to any provisional amounts are allowed during the subsequent 12 months following the acquisition date. Any excess of the net fair value of the assets and liabilities over the consideration transferred will be recorded at the completion date as a gain in the income statement. The purchase price accounting is dependent upon performance of detailed valuations and other analyses that have yet to progress to a stage where there is sufficient information for a definitive measurement. UBS intends to complete the valuations and other assessments upon completion of the transaction and will finalize the purchase price allocation within the required 12-month period. The various assets and liabilities of Credit Suisse have been measured based on preliminary estimates and the assumptions underlying the respective adjustments are described in the accompanying notes. Differences between these preliminary estimates and the final accounting will occur, and these differences could have a material impact on the accompanying unaudited pro forma financial information and the future combined results of operations or combined financial condition of UBS.

The unaudited pro forma condensed combined financial information is presented for illustrative purposes only and reflects preliminary estimates and assumptions made by UBS’s management that it considers reasonable. Such estimates and assumptions are subject to change as additional information becomes known upon consummation of the acquisition. The unaudited pro forma condensed combined financial information does not purport to represent what UBS’s actual results of operations or financial condition would have been had the transaction occurred on the dates indicated, nor is it necessarily indicative of future results of operations or financial condition. The unaudited pro forma condensed combined financial information also does not consider any potential impacts of current market conditions on revenues, assets or liabilities. Nor does it reflect expense efficiencies, asset dispositions or business reorganizations that are or may be contemplated, or any cost or revenue synergies, including any potential restructuring actions, associated with combining UBS and Credit Suisse. Regulatory impacts related to the unaudited pro forma condensed combined financial information are subject to regulator review and approval.

On 19 March 2023, the Swiss Confederation authorized a loss protection agreement (the “Loss Protection Agreement”) in favor of UBS Group AG for CHF 9bn if losses incurred by UBS Group AG on certain assets held by Credit Suisse entities exceeded CHF 5bn. This is outlined in the Amendment to the Ordinance on Additional Liquidity Assistance Loans and the Granting of Federal Default Guarantees for Liquidity Assistance Loans from the Swiss National Bank to Systemically Important Banks published on 19 March 2023 and the details have been set out in the Loss Protection Agreement between the Swiss Confederation and UBS. The starting point for the calculation of losses in the scope of the Loss Protection Agreement will be the initial fair valuation of the relevant assets on completion of the transaction based upon UBS’s prevailing fair market value methodologies and accounting practices. Any losses that are included within the initial fair valuation of the assets as a consequence of the acquisition will be borne by UBS. As a result, there is no value attributed to the Loss Protection Agreement in the pro forma condensed combined balance sheet as of 31 December 2022 (which is prepared as if the transaction would have been completed on 31 December 2022). UBS would only record a benefit from the Loss Protection Agreement if realized and unrealized losses recorded after completion exceed CHF 5bn. To the extent losses on the assets in scope of the Loss Protection Agreement are not realized, there would be no payment by the Swiss government under the Loss Protection Agreement.

UBS will be required to pay the Swiss Confederation (i) an initial fee in the amount of CHF 40m; (ii) an annual maintenance fee in the amount of CHF 36m and (iii) to the extent realized and unrealized losses on the assets in scope of the Loss Protection Agreement exceed CHF 3bn, an additional scalable risk fee (the “drawn portion fee”) will apply. However, if no demand for payment is made by UBS under the Loss Protection Agreement, UBS will not be required to pay the drawn portion fee. As an illustration, if the aggregate realized and unrealized losses on the assets in scope of the Loss Protection Agreement at the end of each quarter is CHF 8bn over the life of the Loss Protection Agreement and UBS makes a claim for payment from the Swiss Confederation at the end of year five following a full 5 year fee accrual period, the drawn portion fee would be CHF 720m in total, calculated using the fee rate of 160bps per annum on the full guaranteed amount of CHF 9bn for 5 years. The fee rate of 160bps applies given the aggregate realized and unrealized loss is equal to CHF 8bn. The CHF 720m fee would be set-off against and reduce the amount of payment due from the Swiss Confederation under the Loss Protection Agreement. If no demand for payment is made by UBS under the Loss Protection Agreement, the drawn fee will not be paid. The actual amount of the drawn portion fee will depend on the amount of realized and unrealized losses at each quarter end and the timing of a demand for payment. Refer to Note 3hh) in the Notes to the unaudited pro forma condensed combined financial information.

The following Credit Suisse events in the first quarter of 2023 are reflected in the pro forma condensed combined financial information as they are considered to be significant and outside of the normal course of operations:

- In the first quarter of 2023, Credit Suisse has written down CHF 15bn of Additional Tier 1 (AT1) capital notes as ordered by the Swiss Financial Market Supervisory Authority (FINMA) in connection with the provision of extraordinary statutory support to Credit Suisse. This write down has been reflected on the basis of the decree issued by FINMA on 19 March 2023 to Credit Suisse Group AG. The estimated effects of this event have been included in the pro forma condensed combined balance sheet and income statement.
- In the first quarter of 2023, Credit Suisse sold a significant part of the Securitized Products Group (Apollo transaction) to entities and funds managed by affiliates of Apollo Global Management. The estimated effects of this transaction have been included in the pro forma condensed combined balance sheet and income statement.
- The pro forma condensed combined balance sheet includes estimated effects of certain compensation-relevant developments in 2023 to the date of this filing, including the estimated impact of triggering the write down mechanism for contingent capital awards issued by Credit Suisse and the estimated effect of the specific mandated compensation cancellations communicated by the Swiss Government to Credit Suisse.

Subsequent to 31 December 2022, Credit Suisse has also experienced significant withdrawals of cash deposits, non-renewal of maturing time deposits and net asset outflows, as referenced in the Credit Suisse First Quarter 2023 earnings release. As a result of these and other developments, there were significant changes in Credit Suisse's assets and liabilities, as well as to its revenue generating businesses. Credit Suisse has also executed elements of a restructuring plan. These changes are not reflected in the pro forma financial data included herein because the transaction was assumed to occur as of 31 December 2022.

The unaudited pro forma condensed combined financial information should be read in conjunction with the information contained in this prospectus and the consolidated financial statements of UBS and Credit Suisse and the accompanying notes included elsewhere.

Unaudited Pro Forma Condensed Combined Balance Sheet as of 31 December 2022

<i>USD millions</i>	Historical	Pro Forma				Pro Forma
	UBS Group (IFRS)	Historical adjusted Credit Suisse Group US GAAP (reclassified and translated to USD) ¹	Reference to explanatory notes	Transaction accounting adjustments ²	Reference to explanatory notes	Condensed combined balance sheet (IFRS)
Assets						
Cash and balances at central banks	169,445	73,873	2a)	4,750	3j)	248,068
Loans and advances to banks	14,792	477 387	2b) 2h)			15,656
Receivables from securities financing transactions measured at amortized cost	67,814	19,480	2c)			87,294
Cash collateral receivables on derivative instruments	35,032	8,356	2j)	14,606 (503)	3a) 3t)	57,490
Loans and advances to customers	387,220	277,455	2h)	(5,922) 1,350 (325)	3d) 3j) 3v)	659,778
Other financial assets measured at amortized cost	53,264	996 13,878	2f) 2j)	2,600	3j)	70,738
Total financial assets measured at amortized cost	727,568	394,901		16,556		1,139,025
Financial assets at fair value held for trading	107,866	3,222 58,813 17,432	2d) 2e) 2j)	(500) (3,222) (3,000) (3,950)	3b) 3c) 3e) 3j)	176,660
Derivative financial instruments	150,108	12,010	2e)	74,620 (3,567)	3a) 3t)	233,171
Brokerage receivables	17,576	14,950		(10,000)	3b)	22,526
Financial assets at fair value not held for trading	59,796	214 15 44,134 4,111 7,961	2a) 2b) 2c) 2g) 2h)	(1,000) (8,950)	3f) 3j)	106,282

<i>USD millions</i>	Historical	Pro Forma				Pro Forma
	UBS Group (IFRS)	Historical adjusted Credit Suisse Group US GAAP (reclassified and translated to USD) ¹	Reference to explanatory notes	Transaction accounting adjustments ²	Reference to explanatory notes	Condensed combined balance sheet (IFRS)
Total financial assets measured at fair value through profit or loss	335,347	162,862		40,431		538,640
Financial assets measured at fair value through other comprehensive income	2,239	862	2f)			3,101
Investments in associates	1,101	1,752	2g)			2,853
Property, equipment and software	12,288	4,974	2j)	1,000 (2,000)	3k) 3l)	16,261
Goodwill and intangible assets	6,267	3,636	2i)	(3,141) 2,000 (60)	3m) 3n) 3n)	8,703
Deferred tax assets	9,389	330	2j)	(118)	3q)	9,601
Other non-financial assets	10,166	107 5,457	2g) 2j)	(3,849)	3o)	11,881
Total assets	<u>1,104,364</u>	<u>574,881</u>		<u>50,819</u>		<u>1,730,064</u>
Liabilities						
Amounts due to banks	11,596	12,350	2k)			23,946
Payables from securities financing transactions measured at amortized cost	4,202	6,749	2m)			10,951
Cash collateral payables on derivative instruments	36,436	2,203	2r)	9,501 (503)	3a) 3t)	47,636
Customer deposits	525,051	237,964	2l)			763,015
Debt issued measured at amortized cost	114,621	6,092 11,710 106,583	2p) 2l) 2q)	(216)	3h)	238,790

<i>USD millions</i>	Historical	Pro Forma				Pro Forma
	UBS Group (IFRS)	Historical adjusted Credit Suisse Group US GAAP (reclassified and translated to USD) ¹	Reference to explanatory notes	Transaction accounting adjustments ²	Reference to explanatory notes	Condensed combined balance sheet (IFRS)
Other financial liabilities measured at amortized cost	9,575	11,339	2r)	182	3r)	21,097
Total financial liabilities measured at amortized cost . . .	<u>701,481</u>	<u>394,990</u>		<u>8,964</u>		<u>1,105,435</u>
Financial liabilities at fair value held for trading	29,515	3,222 10,162	2n) 2o)	(500) (3,222)	3b) 3c)	39,177
Derivative financial instruments	154,906	9,678 167	2o) 2r)	79,725 (3,567)	3a) 3t)	240,908
Brokerage payables designated at fair value	45,085	12,379		(10,000)	3b)	47,464
Debt issued designated at fair value	73,638	7,339 63,531	2p) 2q)	5,329 (15,943)	3h) 3i)	133,894
Other financial liabilities designated at fair value	30,237	530 2,666 15,192	2k) 2l) 2m)	(4,950)	3j)	43,675
Total financial liabilities measured at fair value through profit or loss	<u>333,381</u>	<u>124,865</u>		<u>46,873</u>		<u>505,119</u>
Provisions	3,243	1,679	2r)	221 3,100 4,000	3v) 3g) 3p)	12,243
Other non-financial liabilities	9,040	4,303	2r)	(637) (439)	3q) 3s)	12,267
Total liabilities	<u>1,047,146</u>	<u>525,837</u>		<u>62,082</u>		<u>1,635,064</u>
Equity attributable to shareholders . .	<u>56,876</u>	<u>48,826</u>		<u>(11,263)</u>	3u), 4	<u>94,439</u>

<i>USD millions</i>	Historical	Pro Forma			Pro Forma	
	UBS Group (IFRS)	Historical adjusted Credit Suisse Group US GAAP (reclassified and translated to USD) ¹	Reference to explanatory notes	Transaction accounting adjustments ²	Reference to explanatory notes	Condensed combined balance sheet (IFRS)
Equity attributable to non-controlling interests	342	219				561
Total equity	<u>57,218</u>	<u>49,044</u>		<u>(11,263)</u>		<u>94,999</u>
Total liabilities and equity	<u>1,104,364</u>	<u>574,881</u>		<u>50,819</u>		<u>1,730,064</u>

- 1 Reflects the U.S. GAAP balance sheet for Credit Suisse Group as of 31 December 2022, translated to US dollars at a rate of 1.08 (CHF/USD) and reflecting presentation reclassification adjustments applied to conform with UBS's consolidated financial statement presentation. Refer to Note 2 in the explanatory notes for further information.
- 2 Refer to Note 3 in the explanatory notes for further information.

See accompanying notes.

**Unaudited Pro Forma Condensed Combined Income Statement
for the year ended 31 December 2022**

	Historical	Pro forma			Pro Forma	
	UBS Group (IFRS)	Historical adjusted Credit Suisse Group US GAAP (reclassified and translated to USD) ¹	Reference to explanatory notes	Transaction accounting adjustments ²	Reference to explanatory notes	Condensed Combined Income Statement (IFRS)
<i>USD millions</i>						
Net interest income	6,621	4,891	2s)	1,076 2,271 (14) (349)	3w) 3x) 3y) 3z)	14,496
Other net income from financial instruments measured at fair value through profit or loss . . .	7,517	(473) 715	2s)	157 (242) 124	3w) 3aa) 3z)	7,797
Net fee and commission income	18,966	9,293 (1,062)	2v)	1,033 (102)	3x) 3z)	28,128
Other income	1,459	1,236				2,695
Total revenues	<u>34,563</u>	<u>14,600</u>		<u>3,954</u>		<u>53,117</u>
Gain on the acquisition of Credit Suisse				34,777	3bb), 4	34,777
Credit loss expense / (release)	29	17		546	3gg)	592
Personnel expenses	17,680	7,990 (196) 419	2t) 2u) 2x)	289 886	3cc) 3dd)	27,067
General and administrative expenses	5,189	6,578 1,261 101	2u) 2t) 2x)	130 80	3ee) 3hh)	13,338
Depreciation, amortization and impairment of non- financial assets	2,061	1,787 24 40	2u) 2w) 2x)	300 (558) 25 (24)	3ff) 3ff) 3ff) 3ff)	3,655
Operating expenses	<u>24,930</u>	<u>18,003</u>		<u>1,128</u>		<u>44,061</u>
Operating profit / (loss) before tax	9,604	(3,420)		37,057		43,242
Tax expense / (benefit)	1,942	4,249		—	3q)	6,191
Net profit / (loss)	<u>7,661</u>	<u>(7,669)</u>		<u>37,057</u>		<u>37,049</u>
Net profit / (loss) attributable to non-controlling interests	32	(14)		—		18
Net profit / (loss) attributable to shareholders	<u>7,630</u>	<u>(7,655)</u>		<u>37,057</u>		<u>37,032</u>
Earnings per share (USD)						
Basic	2.34	(2.68)			6	10.80
Diluted	2.25	(2.68)			6	10.39

- 1 Reflects the U.S. GAAP income statement for Credit Suisse Group for the year ended 31 December 2022, translated to US dollars at a rate of 1.05 (CHF/USD) and reflecting presentation reclassification adjustments applied to conform with UBS's consolidated financial statement presentation. Refer to Note 2 in the explanatory notes for further information.
- 2 Refer to Note 3 in the explanatory notes for further information.

See accompanying notes.

Notes to unaudited pro forma condensed combined financial information

As of and for the year ended 31 December 2022 (in USDbn except where otherwise indicated)

Basis of preparation

The unaudited pro forma condensed combined financial information gives effect to the acquisition of a 100% ownership interest in Credit Suisse by UBS under the acquisition method of accounting. The unaudited pro forma condensed combined balance sheet gives effect to the transaction as if it had closed on 31 December 2022. The unaudited pro forma condensed combined income statement for the year ended 31 December 2022 gives effect to the transaction as if it had closed on 1 January 2022.

Explanatory notes on pro forma condensed combined financial information

Note 1: Basis of preparation

The unaudited pro forma condensed combined financial information was prepared by UBS based on the audited consolidated financial statements of both UBS and Credit Suisse as of and for the year ended 31 December 2022, and other limited information available. The unaudited pro forma condensed combined financial information should therefore be read in conjunction with the following consolidated financial statements, including the notes thereto:

- the audited consolidated financial statements of UBS Group AG as of and for the year ended 31 December 2022, which have been prepared in accordance with IFRS and included in the UBS Group AG Annual Report which is attached as Annex A to this prospectus; and
- the audited consolidated financial statements of Credit Suisse Group AG as of and for the year ended 31 December 2022, which have been prepared in accordance with U.S. GAAP and included in the Credit Suisse Annual Report which is attached as Annex C to this prospectus.

The Credit Suisse historical consolidated financial statements were prepared in accordance with U.S. GAAP and presented in Swiss francs (CHF). For purposes of the unaudited pro forma condensed combined financial information, those financial statements have been adjusted to conform to the recognition, measurement and presentation requirements of IFRS, presented in US dollars (USD), which is the presentation currency of UBS. Balance sheet information available for Credit Suisse in CHF has been translated to USD using a spot rate of 1.08 (CHF/USD) as of 31 December 2022 and income statement information available for Credit Suisse in CHF has been translated to USD using an average rate of 1.05 (CHF/USD) for the year ended 31 December 2022.

Note 2: Presentation reclassification adjustments

Presentation reclassification adjustments have been applied to the Credit Suisse balance sheet and income statement information as of and for the year ended 31 December 2022 in order to conform with UBS's consolidated financial statement presentation. Such reclassifications have been made based on currently available information and, accordingly, further required adjustments may be identified as additional information becomes available. These adjustments may be material. The notes below refer to the historical Credit Suisse balance sheet and income statement line items and indicate how these have been reclassified to the respective UBS balance sheet and income statement line items presented herein. Amounts are presented in USD and have been translated from CHF as indicated under Note 1 above.

- a) "Cash and due from banks" of 74.1bn was reclassified to "Cash and balances at central banks" (73.9bn) and to "Financial assets at fair value not held for trading" (0.2bn).
- b) "Interest-bearing deposits with banks" of 0.5bn was reclassified to "Loans and advances to banks" (0.5bn) and "Financial assets at fair value not held for trading" (0.02bn).

- c) “Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions” of 63.6bn was reclassified to “Receivables from securities financing transactions measured at amortized cost” (19.5bn) and to “Financial assets at fair value not held for trading” (44.1bn).
- d) “Securities received as collateral, at fair value” of 3.2bn was reclassified to “Financial assets at fair value held for trading”.
- e) “Trading assets, at fair value” of 70.8bn were split between derivative assets (reclassified to “Derivative financial instruments” (12.0bn)) and non-derivative assets (reclassified to “Financial assets at fair value held for trading” (58.8bn)).
- f) “Investment securities” of 1.9bn was split, with the portion classified as held to maturity under U.S. GAAP reclassified to “Other financial assets measured at amortized cost” (1.0bn) and the portion classified as available for sale under U.S. GAAP reclassified to “Financial assets measured at fair value through other comprehensive income” (0.9bn).
- g) “Other investments” of 6.0bn was split between equity method investments (reclassified to “Investments in associates” (1.8bn)), equity securities (3.5bn) and life finance instruments (0.6bn) (total of 4.1bn reclassified to “Financial assets at fair value not held for trading”) and real estate held-for-investment (reclassified to “Other non-financial assets” (0.1bn)).
- h) “Net loans” of 285.8bn was split between those measured at amortized cost (reclassified to “Loans and advances to customers” (277.5bn) and “Loans and advances to banks” (0.4bn)) and those measured at fair value (reclassified to “Financial assets at fair value not held for trading” (8.0bn)).
- i) “Goodwill” of 3.1bn and “Other intangible assets” of 0.5bn (totalling 3.6bn) were reclassified to “Goodwill and intangible assets”.
- j) “Other assets” of 50.4bn has been split, with 8.4bn reclassified to “Cash collateral receivables on derivative instruments”, 13.9bn reclassified to “Other financial assets measured at amortized cost”, 5.0bn reclassified to “Property, equipment and software”, 17.4bn reclassified to “Financial assets at fair value held for trading”, 0.3bn reclassified to “Deferred tax assets” and 5.5bn reclassified to “Other non-financial assets”.
- k) “Due to banks” of 12.9bn was split, with 0.5bn measured at fair value reclassified to “Other financial liabilities designated at fair value” and the remaining balance reclassified to “Amounts due to banks” (12.4bn).
- l) “Customer deposits” of 252.3bn was split, with 2.7bn measured at fair value reclassified to “Other financial liabilities designated at fair value”, 11.7bn relating to certificates of deposit reclassified to “Debt issued measured at amortized cost” and the remaining balance remaining in “Customer deposits” (238.0bn).
- m) “Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions” of 21.9bn was reclassified to “Payables from securities financing transactions measured at amortized cost” (6.7bn) and to “Other financial liabilities designated at fair value” (15.2bn).
- n) “Obligation to return securities received as collateral, at fair value” of 3.2bn was reclassified to “Financial liabilities at fair value held for trading”.
- o) “Trading liabilities, at fair value” of 19.8bn were split between derivative liabilities (reclassified to “Derivative financial instruments” (9.7bn)) and non-derivative liabilities (reclassified to “Financial liabilities at fair value held for trading” (10.2bn)).
- p) “Short-term borrowings” of 13.4bn has been split between the portion recognized at amortized cost (reclassified to “Debt issued measured at amortized cost” (6.1bn)) and at fair value (reclassified to “Debt issued designated at fair value” (7.3bn)).

- q) “Long-term debt” of 170.1bn has been split between the portion recognized at amortized cost (reclassified to “Debt issued measured at amortized cost” (106.6bn)) and at fair value (reclassified to “Debt issued designated at fair value” (63.5bn)).
- r) “Other liabilities” of 19.7bn has been split, with 2.2bn reclassified to “Cash collateral payables on derivative instruments”, 0.2bn reclassified to “Derivative financial instruments” (liabilities), 11.3bn reclassified to “Other financial liabilities measured at amortized cost”, 1.7bn reclassified to “Provisions” and 4.3bn reclassified to “Other non-financial liabilities”.

Income statement

- s) “Net interest income” of 5.6bn has been split, with 0.7bn relating to net dividend income reclassified to “Other net income from financial instruments measured at fair value through profit or loss” and the remainder remaining within “Net interest income” (4.9bn).
- t) “Compensation and benefits” of 9.3bn has been split, with 8.0bn reclassified to “Personnel expenses” and 1.3bn of outsourcing expenses reclassified to “General and administrative expenses”.
- u) “General and administrative expenses” of 8.2bn has been split, with 1.8bn reclassified to “Depreciation, amortization and impairment of non-financial assets”, a credit of 0.2bn reclassified to “Personnel expenses”, and the balance of 6.6bn remaining in “General and administrative expenses”.
- v) “Commission expenses” of 1.1bn were reclassified to “Net fee and commission income” in line with IFRS presentation requirements.
- w) “Goodwill impairment” of 0.02bn was reclassified to “Depreciation, amortization and impairment of non-financial assets”.
- x) “Restructuring expenses” of 0.6bn were split between those relating to personnel (reclassified to “Personnel expenses” (0.4bn)), those relating to depreciation and impairment of non-financial assets (reclassified to “Depreciation, amortization and impairment of non-financial assets” (0.04bn)) and those relating to other costs (reclassified to “General and administration expenses” (0.1bn)).

Note 3: Transaction accounting adjustments

Transaction accounting adjustments include certain pro forma preliminary adjustments to conform Credit Suisse’s balance sheet and income statement to UBS’s IFRS accounting policies and adjustments made to reflect the fair value of identifiable assets acquired and liabilities assumed in accordance with IFRS. They also include certain identified combination adjustments, the elimination of Credit Suisse equity balances and reflection of the estimated purchase consideration and estimated negative goodwill.

Pro forma transaction adjustments made to reflect the fair value measurement of identifiable assets acquired and liabilities assumed are preliminary and based upon available information and certain assumptions that UBS believes are reasonable under the circumstances, which are described in this note. These adjustments have been estimated based on limited information available at the time of preparing the pro forma condensed combined balance sheet and income statement. In determining the adjustments, UBS has considered valuation inputs and assumptions based on the latest available information (as of 31 March 2023) in order to make a best estimate of fair values at the date of acquisition. A final determination of the fair value of assets acquired and liabilities assumed will be based on the actual assets and liabilities of Credit Suisse that exist as of the closing date of the transaction, with further adjustments possible in the subsequent 12 months as allowed under IFRS 3 requirements. As a consequence, the final fair value adjustments may differ materially from the amounts presented here.

In preparing the unaudited pro forma condensed combined financial information, UBS has assumed that all acquired hedging instruments and hedged items are redesignated within effective hedge accounting relationships upon completion of the merger.

All adjustments have been considered on a pre- and post-tax basis and where an estimated impact on income taxes has been identified this is reflected in Note 3q). This assessment includes assumptions and represents UBS's best estimate as to the likely tax impacts. The assessment could change as further information becomes available, including how the entities and businesses in each location will be reorganized, receipt of revised profit forecasts for those entities, and discussions with the relevant tax authorities. No deferred tax assets have been recognized in connection with the pre-tax adjustments as it is assumed that the pre-tax adjustments will either not be recognized for tax purposes, or they will generally relate to entities with tax losses carried forward that are not recognized as deferred tax assets.

The following notes reference the pro forma condensed combined balance sheet and income statement as of and for the year ended 31 December 2022 which is included earlier in this section.

Balance sheet

- a) Reflects an adjustment to reverse certain netting impacts allowable under U.S. GAAP but not under IFRS. Under U.S. GAAP, derivative financial instruments may be presented on a net basis where an enforceable master netting agreement is in place. IFRS offsetting rules are more restrictive, requiring, in addition to having an enforceable right to offset upon the counterparty's default, the right to offset if the reporting entity itself defaults and the right to offset in the normal course of business. UBS has reviewed Credit Suisse's offsetting under U.S. GAAP and the estimated impact of this accounting difference as of 31 December 2022 results in an increase in Credit Suisse's derivative assets and liabilities and associated cash collateral of approximately 89bn. The table below summarizes the impacts of this adjustment on the relevant line items. This adjustment is estimated to have no regulatory capital impact given the Basel capital netting rules are not tied to the underlying accounting treatment.

<i>USD millions</i>	
Cash collateral receivables on derivative instruments	14,606
Derivative financial instruments	74,620
Total assets	<u>89,225</u>
Cash collateral payables on derivative instruments	9,501
Derivative financial instruments	79,725
Total liabilities	<u>89,225</u>

- b) Reflects an adjustment to include estimated impacts of moving from trade date to settlement date accounting. Credit Suisse recognizes security purchases and sales on a trade date basis for their house business, while UBS uses a settlement date basis. The estimated impact of this accounting difference as of 31 December 2022 results in a reduction in Financial assets at fair value held for trading and Financial liabilities at fair value held for trading of 0.5bn and a reduction in Brokerage receivables and Brokerage payables designated at fair value of 10bn (with the latter stemming from matching long / short positions executed by Credit Suisse non-broker dealer branches, and therefore reported as receivables and payables on a gross basis in its financial statements). UBS reviewed other possible scenarios that could trigger trade date / settlement date differences (e.g., client clearing activities and derivatives booked on a settlement date accounting basis), and no material differences were identified.

<i>USD millions</i>	
Financial assets at fair value held for trading	(500)
Brokerage receivables	<u>(10,000)</u>
Total assets	<u>(10,500)</u>
Financial liabilities at fair value held for trading	(500)
Brokerage payables designated at fair value	<u>(10,000)</u>
Total liabilities	<u>(10,500)</u>

- c) Reflects an adjustment to derecognize certain positions that were recognized under U.S. GAAP. Under U.S. GAAP, lenders of securities are required to gross up their balance sheet if they receive securities as collateral (showing a respective asset and liability for the securities received that need to be redelivered). Securities received as collateral (reflected under “Financial assets at fair value held for trading”) and the associated obligation to return securities received as collateral (reflected under “Financial liabilities at fair value held for trading”) of 3.2bn recognized by Credit Suisse under U.S. GAAP have been derecognized under IFRS.
- d) A preliminary fair value adjustment (discount) of 5.9bn has been applied to accrual accounted exposures recognized under Loans and advances to customers. This adjustment reflects UBS’s best estimate of the delta between carrying value and fair value for certain accrual accounted portfolios and positions upon closing of the transaction. The estimate has been prepared with reference to estimated fair values information provided for these positions in the audited Credit Suisse 2022 financial statements, rolled forward to reflect developments in interest rates and other significant input factors up to 31 March 2023, and with consideration of the markets for potential strategic exit of certain portfolios or positions. Around half of the 5.9bn discount stems from fixed rate products, in particular Swiss mortgages, which are expected to accrue back to par if the product is held to its maturity. Detailed valuations have not been obtained and, accordingly, the fair value adjustment reflects preliminary estimates made by UBS and is subject to change once detailed analyses are performed and as additional information becomes available. These changes may be material. Refer also to Note 3x)i. for the corresponding impact on the pro forma condensed combined income statement for 2022.
- e) A preliminary fair value adjustment (discount) of 3.0bn has been applied to Financial assets at fair value held for trading to reflect UBS’s best estimate of the fair value of individual positions and valuation adjustments for a range of uncertainties including liquidity and model risks given the illiquid nature of some positions and structural complexities and consideration of the markets for potential strategic exit of certain positions. This included consideration of information available to UBS through 31 March 2023. Detailed valuations have not been performed and, accordingly, the fair value adjustment reflects preliminary estimates made by UBS and is subject to change once further analyses are performed and as additional information becomes available. These changes may be material.
- f) A preliminary fair value adjustment (discount) of 1.0bn has been applied to Financial assets at fair value not held for trading to reflect UBS’s best estimate of the fair value of certain unobservable or more complex portfolios in markets for potential strategic exit. This included consideration of information available to UBS through 31 March 2023. Detailed valuations have not been performed and, accordingly, the fair value adjustment reflects preliminary estimates made by UBS and is subject to change once further analyses are performed and as additional information becomes available. These changes may be material.
- g) A preliminary fair value adjustment of 3.1bn has been made to increase Provisions to reflect UBS’s best estimate of the fair value of accrual-accounted unfunded loan commitments, primarily in the relationship lending portfolio, which are required to be fair valued under IFRS 3 acquisition rules. For the portion retained, the initial mark is expected to accrete back into fee and commission income over the life of the loan commitment. Detailed valuations have not been performed and, accordingly, the fair value adjustment reflects preliminary estimates made by UBS and is subject to change once further

analyses are performed and as additional information becomes available. These changes may be material. Refer also to Note 3x)ii. for the corresponding impact on the pro forma condensed combined income statement for 2022.

- h) A preliminary fair value adjustment (discount) of 0.2bn has been applied to Debt issued measured at amortized cost and a preliminary fair value adjustment (premium) of 5.3bn has been applied to Debt issued designated at fair value to reflect UBS's best estimate of the delta between carrying value and fair value for issued debt acquired from Credit Suisse upon closing of the transaction. The delta represents the impact of fair valuing Credit Suisse issued debt using UBS funding spreads and includes the following:

<i>USD millions</i>	Balance sheet location	
	Debt issued measured at amortized cost	Debt issued measured at fair value
Adjustment i)		5,113
Adjustment ii)	974	216
Adjustment iii)	(1,190)	
Total	(216)	5,329

- i. the reversal of the life-to-date own credit gain recognized by Credit Suisse on fair value debt as of 31 December 2022 (5.1bn premium relating to debt issued designated at fair value).
- ii. a fair value adjustment to incorporate the estimated impact of UBS's own credit spread on amortized cost and fair value debt (estimate of 1.0bn premium for amortized cost and 0.2bn premium for fair value). The fair value adjustments have been calculated using UBS funding spreads as of 31 March 2023 to give an estimate of the impacts at the merger closure date, given the significant movement in funding spreads across the first quarter of 2023.
- iii. a fair value adjustment to incorporate the estimated impact of interest rate movements into amortized cost securities not held under fair value hedge accounting programs (1.2bn discount) based on valuation inputs and assumptions as of 31 March 2023.

Detailed valuations have not been performed and, accordingly, the fair value adjustments above reflect preliminary estimates made by UBS and are subject to change once further analyses are performed and as additional information becomes available. These changes may be material. Refer to Note 3q)ii. for the corresponding impact on deferred tax liabilities. Refer also to Note 3y) for the corresponding impact of these adjustments on the pro forma condensed combined income statement for 2022.

Adjustments (i) and (ii) related to UBS funding spreads are not expected to have an impact on regulatory capital given that they relate in substance to own credit impacts which are reversed from common equity tier 1 capital for fair valued liabilities. This treatment is subject to regulator review and approval.

- i) Debt issued designated at fair value has been reduced by 15.9bn to reflect the impact from writing off additional tier 1 (AT1) capital instruments on the basis of the decree issued by the Swiss Financial Market Supervisory Authority (FINMA) on 19 March 2023 to Credit Suisse Group AG. The write down reflects the book value of the impacted AT1 instruments, gross of the impact of Credit Suisse's life-to-date own credit gain (which was already reversed in Note 3h) above). For the pro forma condensed combined balance sheet this has been reflected as if the write down would have occurred on 31 December 2022. Refer also to Note 3w) for the corresponding impact on the pro forma condensed combined income statement for 2022.
- j) In the first quarter of 2023, Credit Suisse sold a significant part of the Securitized Products Group (Apollo transaction) to entities and funds managed by affiliates of Apollo Global Management; 15.2bn assets (3.95bn Financial assets at fair value held for trading and 11.25bn Financial assets at fair value

not held for trading). Consideration for the sale included cash, alongside the provision by Credit Suisse of an 8bn senior financing facility of which 3.7bn has been drawn as of 31 March 2023 (1.35bn in Loans and advances to customers and 2.3bn in Financial assets at fair value not held for trading) and a smaller guaranteed payment of 2.6bn (Other financial assets measured at amortized cost). The table below summarizes the adjustments which have been reflected in the pro forma condensed combined balance sheet in connection with the sold portfolio, including the derecognition of financial assets and liabilities and the recognition of new financing provided, following the accounting treatment applied by Credit Suisse. A detailed review of the transaction and associated accounting has not been performed. Accordingly, the adjustments are subject to change once further analyses are performed and these changes may be material. Refer also to Note 3z) for the corresponding impact on the pro forma condensed combined income statement for 2022.

<u>USD millions</u>	
Cash and balances at central banks	4,750
Loans and advances to customers	1,350
Other financial assets measured at amortized cost	2,600
Financial assets at fair value held for trading	(3,950)
Financial assets at fair value not held for trading, net	(8,950)
Total assets	<u>(4,200)</u>
Other financial liabilities designated at fair value	(4,950)
Total liabilities	<u>(4,950)</u>
Net impact on fair value of assets acquired	<u>750</u>

- k) An adjustment of 1.0bn has been reflected in connection with estimated fair value markups on real estate properties held by Credit Suisse at cost, based on a preliminary valuation analysis performed for the most significant properties, referencing limited information provided by Credit Suisse. Detailed valuations have not been obtained and, accordingly, the fair value adjustment reflects a preliminary estimate made by UBS and it is subject to change once a detailed analysis is performed and as additional information becomes available. These changes may be material. Refer to Note 3q)v. for the corresponding impact on deferred tax liabilities. Refer also to Note 3ff)iii. for the corresponding impact on the pro forma condensed combined income statement for 2022.
- l) An estimated markdown of 2.0bn has been reflected for capitalized software on the basis of an initial scenario analysis, including high-level information about the components of capitalized software received from Credit Suisse by business division and how other market participants would fair value the software acquired. Detailed valuations have not been obtained and, accordingly, the fair value adjustments reflect preliminary estimates made by UBS's management and are subject to change once detailed analyses are performed and as additional information becomes available. These changes may be material. Refer also to Note 3ff)i. for the corresponding impact on the pro forma condensed combined income statement for 2022.
- m) In accordance with the requirements of IFRS 3 that only allow recognition of the acquired identifiable assets, existing goodwill of 3.1bn in the financial statements of Credit Suisse is eliminated. Refer also to Note 3ff)iv. for the corresponding impact on the pro forma condensed combined income statement for 2022.
- n) The pro forma condensed combined balance sheet includes two adjustments relating to intangible assets:
 - i. Recognition of 2.0bn estimated fair value of identifiable intangible assets acquired, stemming primarily from customer relationships and core deposits. Detailed valuations have not been obtained, with initial assumptions leveraging public information and limited confidential

information to provide indicative values. The fair value adjustments are subject to change once detailed analyses are performed and as additional information becomes available. These changes may be material.

- ii. Write down of 0.06bn of existing intangible assets based on preliminary assessments, with the assets comprising this balance at the end of their useful economic life and therefore valued at zero. Mortgage servicing rights measured at fair value of 0.4bn are retained.

Refer to Note 3q)iv. for the corresponding impact on deferred tax liabilities. Refer also to Note 3f)ii. for the aggregate impact on the pro forma condensed combined income statement for 2022.

- o) Credit Suisse sponsors several defined benefit pension plans for its employees and has recognized a pension asset of 4.5bn in Other non-financial assets, as of 31 December 2022 under U.S. GAAP, of which 3.8bn relates to the Swiss plan. Under IFRS, if the fair value of the assets is higher than the present value of the defined benefit obligation, the recognition of the resulting net asset is limited to the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan (asset ceiling). UBS analyzed available information on the Credit Suisse pension plans and has derecognized pension assets of 3.8bn, in accordance with IAS 19 limits. This adjustment is expected to have no regulatory capital impact given pension assets are already deducted from common equity tier 1 capital. Refer to Note 3q)iii. for the corresponding impact on deferred tax liabilities.
- p) IFRS 3 requires UBS to recognize contingent liabilities for all present obligations included in the scope of the acquisition at fair value upon closing, even if it is not probable that they will result in an outflow of resources, i.e., UBS is required to recognize provisions for all possible outflows, significantly increasing the recognition threshold beyond the standard thresholds under U.S. GAAP and IFRS. To reflect this, additional pro forma provisions of 4.0bn have been recognized based on UBS's initial assessment of the possible outflows from litigation, regulatory and similar matters. Detailed assessments have not been performed and the fair value adjustments are subject to change once detailed analyses are performed and as additional information becomes available. These adjustments may be material.
- q) Pro forma adjustments have been reflected in Deferred tax assets and deferred tax liabilities, in Other non-financial liabilities, as outlined in the table below.

<u>USD millions</u>		<u>Note</u>
Derecognition of DTAs	(118)	i.
Total assets	(118)	
Derecognition of net DTL associated with own credit		
OCI	(500)	ii.
Derecognition of net DTL associated with pension		
asset	(737)	iii.
Recognition of DTL associated with new intangibles	400	iv.
Recognition of DTL associated with real estate valuation		
increase	200	v.
Total liabilities	(637)	

- i. A pro forma adjustment has been made to derecognize deferred tax assets of 0.1bn to reflect UBS's estimate of deferred tax asset utilization in the relevant legal entities.
- ii. A pro forma adjustment has been made to reverse net deferred tax liabilities of 0.5bn relating to other comprehensive income (OCI) for own credit on the basis that Credit Suisse equity balances, including OCI, are reversed as part of the business combination accounting under IFRS 3 (see Note 3h).

- iii. A pro forma adjustment has been made to reduce net deferred tax liabilities by 0.7bn in connection with the reversal of pension assets (see Note 3o).
- iv. A pro forma adjustment has been made to increase deferred tax liabilities by 0.4bn to reflect the estimated taxable temporary difference arising on recognition of new intangible assets (see Note 3n)i).
- v. A pro forma adjustment has been made to increase deferred tax liabilities by 0.2bn to reflect the estimated taxable temporary difference potentially arising on higher real estate valuations (see Note 3k).

All pro forma pre-tax adjustments have been considered and no tax expense or benefit has been recognized in connection with the pre-tax adjustments in the pro forma condensed combined income statement as it is assumed that the pre-tax adjustments will either not be recognized for tax purposes, or they will generally relate to entities with tax losses carried forward that are not recognized as deferred tax assets. Any changes to the pro forma condensed combined income statement for 2022 in respect of these entities would, therefore, only affect the amount of their unrecognized tax losses carried forward and would have no impact on their tax expenses or benefits for 2022. This assessment includes assumptions and represents UBS's best estimate as to the likely tax impacts. The assessment could change as further information becomes available, including how the entities and businesses in each location will be reorganized, receipt of revised profit forecasts for those entities, and discussions with the relevant tax authorities.

- r) An adjustment has been reflected to include an accrual for estimated acquisition-related costs of 0.2bn, based on the estimate of costs to be incurred up to closing of the transaction for both UBS and Credit Suisse, consisting primarily of advisory, legal and consulting fees. An increase to liabilities for estimated costs for Credit Suisse (0.1bn) is part of the calculation of negative goodwill, whereas the estimated costs for UBS (0.1bn) are excluded from this calculation but are reflected as an increase to liabilities in the pro forma condensed combined balance sheet. Refer to Note 3ee) for the associated impact on the pro forma condensed combined income statement for 2022.
- s) An adjustment has been made (estimated reduction of 0.4bn to Other non-financial liabilities) to reflect the estimated effect on the balance sheet of a write down of contingent capital awards issued by Credit Suisse and specific mandated Credit Suisse compensation cancellations as communicated by the Swiss government to Credit Suisse in the second quarter of 2023.
- t) UBS has reviewed exposures and transactions with Credit Suisse as of and for the year ended 31 December 2022 and applied estimated intercompany elimination adjustments, as outlined in the table below, assuming reciprocal measurements and classification in the accounts of Credit Suisse. Estimated intercompany amounts in the income statement are not considered to be material and have not been adjusted. Further consolidation adjustments may be required as more information becomes available and as analyses are completed and, accordingly, carrying values are subject to change. These adjustments may be material.

<u>USD millions</u>	
Cash collateral receivables on derivative instruments	(503)
Derivative financial instruments	<u>(3,567)</u>
Total assets	<u>(4,070)</u>
Cash collateral payables on derivative instruments	(503)
Derivative financial instruments	<u>(3,567)</u>
Total liabilities	<u>(4,070)</u>

- u) Credit Suisse's historical shareholders' equity, which includes common shares, additional paid-in capital, retained earnings, treasury shares and accumulated other comprehensive income / (loss), is eliminated on combination. The movements impacting the pro forma combined equity are outlined in the table below.

Equity	Historical	Historical	Proforma					Pro Forma	
	UBS Group (IFRS)	Credit Suisse Group (US GAAP)	Estimated purchase consideration	Delta of purchase consideration to weighted average cost of treasury shares	Negative goodwill	Elimination of Credit Suisse historical equity	Estimate of UBS transaction costs up to closing of the transaction	Recognition of ECL under IFRS 9	Condensed combined balance sheet (IFRS)
Share capital	304	173				(173)			304
Share premium	13,546	41,778	156	349		(41,778)			14,051
Treasury shares	(6,874)	(463)	3,305	(349)		463			(3,918)
Retained earnings	50,004	25,568			34,777	(25,568)	(130)	(546)	84,105
Other comprehensive income recognized directly in equity, net of tax	(103)	(18,230)				18,230			(103)
Equity attributable to shareholders	56,876	48,826	3,461	—	34,777	(48,826)	(130)	(546)	94,439
Equity attributable to non-controlling interests	342	219							561
Total equity	57,218	49,044	3,461	—	34,777	(48,826)	(130)	(546)	94,999

- v) Following the recognition of identifiable assets as part of the purchase price allocation under IFRS 3 and their measurement at fair value, including financial assets and off-balance sheet arrangements, it is required under IFRS 9 to additionally recognize expected credit losses for positions measured at amortized cost which are not impaired. Impaired instruments are recognized as purchased credit impaired instruments at fair value, with no additional expected credit losses initially recorded. For the pro forma condensed combined balance sheet, an allowance of 0.3bn has been recorded against the carrying value of non-impaired Loans and advances to customers. This amount is 0.2bn less than the historic allowance as of 31 December 2022 under the U.S. GAAP CECL approach which was subject to a lifetime calculation. In addition, provisions for credit losses of 0.2bn have been recognized in "Provisions" to reflect the recognition of IFRS 9 expected credit loss provisions for qualifying off-balance sheet commitments that are not impaired. This amount is 0.05bn higher than the historic provision as of 31 December 2022 under US GAAP and includes expected credit losses for committed unconditionally revocable credit lines for which no CECL was required under U.S. GAAP. Refer to Note 3gg) for the associated impact on the pro forma condensed combined income statement of 2022.

Loan allowances and provisions for credit losses (USDm)

	Credit Suisse Group							Combined UBS Group post- acquisition date (IFRS)
	31.12.2022			Acquisition date			UBS Group 31 December 2022 (IFRS)	
	U.S. GAAP	Delta U.S. GAAP to IFRS	IFRS	Impact of reset through purchase price allocation (PPA)	ECL in PPA balance sheet	Initial recognition of ECL allowances and provisions post-PPA		
Loans and advances to customers								
Allowances for credit losses	(1,475)	235	(1,240)	1,240	—	(325)	(783)	(1,108)
of which on non-impaired exposures	(560)	235	(325)	325	—	(325)	(308)	(633)
of which on impaired exposures	(915)	—	(915)	915	—	—	(475)	(475)
Off-balance sheet arrangements not at fair value								
Provisions for credit losses	(235)	(151)	(386)	386	—	(221)	(201)	(422)
of which on non-impaired exposures	(172)	(151)	(323)	323	—	(221)	(175)	(396)
of which on impaired exposures	(63)	—	(63)	63	—	—	(26)	(26)

Income statement

- w) Net interest income includes a preliminary transaction adjustment to reverse out interest expense of 1.1bn and Other net income from financial instruments measured at fair value through profit or loss includes a reversal of net fair value losses of 0.2bn to reflect the impact from writing off the additional tier 1 (AT1) capital instruments (see Note 3i). This write down has been reflected on the basis of the decree issued by the Swiss Financial Market Supervisory Authority (FINMA) on 19 March 2023 to Credit Suisse Group AG. For the pro forma condensed combined income statement this has been reflected as if the write down would have occurred on 1 January 2022. The adjustment is reflected net of hedge effects as UBS has assumed that related hedging instruments would have been terminated in parallel with the write off of the AT1 capital instruments.
- x) The pro forma condensed combined income statement includes two adjustments to reflect accretion of the fair value adjustment on certain loan portfolios (see Note 3d) and unfunded loan commitments (see Note 3g):
- i. An estimated fair value discount related to on-balance sheet loan portfolios where there is an expected intent to hold the portfolio to maturity has been accreted over a period of 2-4 years using the sum-of-the-years digits method. The pro forma condensed combined income statement includes a credit of 2.3bn to Net interest income reflecting estimated associated accretion. The calculation includes significant assumptions including the intended business model of acquired assets (hold to maturity versus held for trading or imminent sale) and the estimated average maturity of those assets which are expected to be held to maturity. This calculation is intended to approximate an effective yield calculation based on preliminary estimates and assumptions which are subject to change once detailed analyses are performed and as additional information becomes available. These changes may be material.

USD billions

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
Estimated accretion of fair value discount for on-balance sheet loan portfolios . . .	2.3	1.6	0.8	0.3

- ii. The accretion of an estimated fair value discount on unfunded loan commitments (recognized within Provisions) has been accreted over 3 years on a straight-line basis, resulting in a 1.0bn pro forma credit in 2022 to Net fee and commission income. The calculation is based on preliminary estimates and assumptions, in particular that the whole portfolio would be held to maturity, which are subject to change once detailed analyses are performed and as additional information becomes available. These changes may be material.

- y) The pro forma condensed combined income statement includes an adjustment to reflect 0.01bn (debit) of estimated interest income from net amortization in the first year following acquisition of the adjustment made to report acquired debt issued at fair value, including the estimated impact of UBS's own credit spread and interest rate movements where not already incorporated in CS's carrying values (refer to Note 3h)). The accretion is calculated using the sum-of-the-years digits method, with reference to the average estimated maturity profile of acquired debt issued. This calculation is intended to approximate an effective yield calculation based on preliminary estimates and assumptions which are subject to change once detailed analyses are performed and as additional information becomes available. These changes may be material.
- z) In the first quarter of 2023, Credit Suisse sold a significant part of the Securitized Products Group (SPG) (Apollo transaction) to entities and funds managed by affiliates of Apollo Global Management. Net interest income of 0.3bn, Net fee and commission income of 0.1bn and a trading loss in Other net income from financial instruments measured at fair value through profit or loss of 0.1bn recognized in 2022 by Credit Suisse in connection with the sold portfolio have been adjusted out of the pro forma condensed combined income statement to reflect the transaction as if it had been completed on or prior to 1 January 2022. As the net gain on sale of this portfolio of approximately 0.8bn was recognized by Credit Suisse in the first quarter of 2023 (i.e., after 31 December 2022 but before closing of the transaction), it is not directly reflected in the pro forma income statement. However, the gain is included in the calculation of the negative goodwill as it represents an increase in net assets acquired from Credit Suisse (see Note 3j).
- aa) Under IFRS, Day 1 gains and losses on financial instruments, after taking account of any valuation adjustments, are recognized in the income statement only when their fair value is evidenced by an observable market source. A similar restriction does not exist under U.S. GAAP. On this basis, a debit adjustment of 0.2bn has been recognized in the pro forma condensed combined income statement for 2022.
- bb) The negative goodwill balance arising from the transaction is estimated to be 34.8bn and has been determined based on the estimated fair values (note that there are certain limited exemptions from fair value measurement as permitted under IFRS 2 and IAS 19) for the identifiable assets acquired and liabilities assumed, and consideration transferred. Refer to Note 4 for further information. This adjustment is non-recurring in nature.
- cc) Personnel expenses include a pro forma adjustment of 0.3bn to reflect incremental expense as IFRS and U.S. GAAP have different requirements for the expected return on plan assets, recognition of changes to past service costs and recognition of actuarial gains/losses in connection with post-employment benefit plans.
- dd) A pro forma adjustment of 0.9bn (increase to personnel expenses) has been made to reflect UBS's estimate of other compensation-related effects, primarily related to the application of UBS compensation approaches and deferral framework. The increase to pro forma expenses in 2022 would be offset by lower deferred compensation amortization expenses in future years.
- ee) General and administrative expenses include an adjustment for estimated acquisition-related costs of 0.1bn, based on an estimate of costs to be incurred up to closing of the transaction for UBS, consisting primarily of advisory and legal fees. This adjustment is non-recurring in nature.
- ff) Depreciation, amortization and impairment of non-financial assets includes the following adjustments:
 - i. An estimated reduction in amortization expense of 0.6bn has been recognized in the pro forma condensed combined income statement to reflect the impact on amortization expense in 2022 if the fair value discount on software was applied on 1 January 2022. See Note 3l).
 - ii. Incremental amortization of 0.3bn has been reflected in the pro forma condensed combined income statement to reflect the estimated impact on operating expenses if new intangible assets were recognized as of 1 January 2022. See Note 3n)i.

- iii. Incremental amortization of 0.03bn has been reflected in the pro forma condensed combined income statement to reflect the estimated impact on operating expenses related to the fair value adjustment of real estate acquired as of 1 January 2022. See Note 3k).
- iv. Goodwill impairment of 0.02bn recognized in 2022 has been reversed in the pro forma condensed combined income statement to reflect the impact of writing off Credit Suisse goodwill as referenced in Note 3m).
- gg) Net credit loss expense of 0.5bn, including 0.3bn for on- and 0.2bn for off-balance sheet positions, are reflected in the pro forma income statement for the year ended 2022. Refer to Note 3v).
- hh) General & administrative expenses include an adjustment of USD 80m recognized for estimated costs in the first year following implementation of the Loss Protection Agreement with the Swiss Confederation. The costs include a one-time set-up fee of CHF 40m (this amount is non-recurring) and an annual maintenance fee of CHF 36m. To the extent realized and unrealized losses on the assets in scope of the Loss Protection Agreement exceed USD 3bn, an additional scalable risk fee will apply (“drawn portion fee”). However, if no demand for payment is made by UBS under the Loss Protection Agreement, UBS will not be required to pay the guarantee fee. As CHF 3bn of losses need to arise after completion of the transaction before the drawn portion fee is triggered, no amount has been included in the pro forma condensed combined income statement.

Note 4: Estimated preliminary purchase price allocation

The unaudited pro forma condensed combined financial information assumes that UBS will acquire 100% of the outstanding Credit Suisse shares upon closing of the transaction, that the number of outstanding Credit Suisse shares exchanged will be approximately 3.9bn shares and that each Credit Suisse share will be exchanged for 1/22.48 UBS shares. In addition, the estimated fair value of outstanding share-based compensation awards for Credit Suisse employees that is attributable to pre-combination service is 0.2bn, for a total purchase price of approximately 3.5bn (based on the UBS Group AG share price on 5 May 2023). The final valuation of the consideration to be transferred by UBS upon the completion of the transaction will be determined based on the closing price of UBS shares on the closing date of the transaction. The purchase consideration is reflected as a reduction to treasury shares of UBS Group at their weighted average cost, with the difference between the fair value of UBS shares on the closing date and the weighted average cost of treasury shares in the UBS Group balance sheet on closing date taken as an adjustment to share premium.

The negative goodwill amount arising from the transaction is estimated to be 34.8bn and has been determined based on the estimated fair values for the identifiable assets acquired and liabilities assumed, and consideration transferred.

Preliminary pro forma purchase price allocation (indicative only, subject to change)

	USD millions
Pro forma estimated purchase price	<u>3,461</u>
Credit Suisse Net Assets at Fair Value	
Assets	
Loans and advances to customers	272,883
Other financial assets measured at amortized cost	138,899
Financial assets at fair value held for trading and derivatives	151,858
Other financial assets measured at fair value	52,298
Other non-financial assets	<u>10,088</u>
Total assets	<u>626,025</u>
Liabilities	
Customer deposits	237,964
Debt issued	184,425
Other financial liabilities measured at amortized cost	41,691
Financial liabilities at fair value held for trading and derivatives	95,665
Other financial liabilities designated at fair value	15,817
Other non-financial liabilities	<u>12,006</u>
Total liabilities	<u>587,568</u>
Non-controlling interests	<u>219</u>
Fair value of net assets acquired	<u>38,238</u>
Pro forma negative goodwill resulting from the merger	<u>(34,777)</u>

Pro forma transaction adjustments made to reflect the fair value measurement of identifiable assets acquired and liabilities assumed are preliminary and based upon available information and certain assumptions that UBS believes are reasonable under the circumstances, which are described above. A final determination of the fair value of assets acquired and liabilities assumed will be based on the actual assets and liabilities of Credit Suisse that exist as of the closing date of the transaction and, therefore, cannot be finalized prior to the completion of the transaction and may differ materially from the amounts presented here. In addition, IFRS 3 allows for a further 12 months to finalize provisional amounts after closing.

The following table summarizes the determination of the purchase price consideration with a sensitivity analysis assuming a 10% increase and a 10% decrease in the price of UBS's ordinary share price from the 5 May 2023 baseline with its impact on the pro forma negative goodwill.

<i>in millions, except per share data and exchange rate</i>	5 May 2023	10% increase in UBS Group share price	10% decrease in UBS Group share price
CS ordinary shares outstanding, 31 March 2023	3,947	3,947	3,947
Exchange ratio	0.04	0.04	0.04
UBS ordinary shares	176	176	176
UBS ordinary share price, 5 May 2023 (in CHF)	17.40	19.14	15.66
Pro forma purchase price consideration (in CHFm), before consideration of replacement awards	3,055	3,360	2,749
CHF/USD, 31 December 2022	1.08	1.08	1.08
Pro forma purchase price consideration (in USDm), before consideration of replacement awards	3,305	3,636	2,975
Estimated impact of replacement awards	156	171	140
Pro forma purchase price consideration (in USDm), after consideration of replacement awards	3,461	3,807	3,115
Preliminary pro forma negative goodwill resulting from the merger (USDm)	34,777	34,431	35,123

Note 5: U.S. GAAP to IFRS differences

Other than for the items noted in section 3, UBS has reviewed Credit Suisse's U.S. GAAP policies and related reporting and has concluded that other identified policy differences did not result in a material impact compared with reporting prepared under UBS's IFRS accounting policies. As part of this review UBS has considered the following:

Consolidation: IFRS and U.S. GAAP consolidation principles are for the most part in line with consolidation required when an entity has power over relevant activities and exposure to variable returns. No material differences are expected.

Classification of financial instruments: A detailed assessment of the business model and solely payments of principal and interest criteria under IFRS 9 is required to substantiate the classification and measurement of financial instruments under IFRS. However, the majority of financial instruments recognized by Credit Suisse are not expected to have changes to their classification under IFRS.

Hedge accounting: IFRS requires that all hedge relationships are redesignated following an acquisition. In preparing the pro forma condensed combined financial information, Credit Suisse's hedge designations have been retained on the assumption that they would continue to qualify for hedge accounting under IFRS, subject to redocumentation.

Lease accounting: Lease liability measurement throughout the life of the lease is similar under both IFRS and U.S. GAAP. No material differences are expected.

Accordingly, no adjustments have been reflected in the pro forma financial information for the items above.

Note 6: Earnings per share

Pro forma earnings (loss) per share (referred to as "EPS") for the pro forma condensed combined income statement have been recalculated to show the impacts of the transaction after giving effect to the UBS shares to

be transferred to Credit Suisse shareholders, using the exchange ratio defined and assuming that the UBS shares to be transferred to Credit Suisse shareholders in connection with the transaction were outstanding at the beginning of the period presented.

For the purposes of the unaudited pro forma diluted EPS calculation, there is assumed to be no effect from anti-dilutive potential ordinary shares.

	For the year ended 31 December 2022	
	UBS Group Historic	Unaudited pro forma combined company
Net income attributable to shareholders, USDm	7,630	37,032
Weighted average number of ordinary shares (basic), million	3,261	3,429
Basic earnings per share, USD	<u>2.34</u>	<u>10.80</u>
Weighted average number of ordinary shares (diluted), million	3,397	3,565
Diluted earnings per share, USD	<u>2.25</u>	<u>10.39</u>

INFORMATION ABOUT THE COMPANIES

UBS Group AG

*Bahnhofstrasse 45, 8001
Zurich, Switzerland
Tel: +41 44 234 11 11*

UBS Group is a leading and truly global wealth manager with focused asset management and investment banking capabilities, and the leading universal bank in Switzerland. UBS Group enables people, institutions and corporations to achieve their goals by providing financial advice and solutions. UBS Group has a capital-light, cash-generative and well-diversified business model, a strong culture, a balance sheet for all seasons and a respected brand with over 160 years of history.

The operational structure of UBS Group is comprised of the Group Functions and four business divisions: Global Wealth Management, Personal & Corporate Banking, Asset Management and the Investment Bank. UBS Group AG sees joint efforts as key to its growth, both within and between business divisions. UBS Group employs approximately 72,500 employees (full-time equivalents) across 48 countries.

UBS Group AG is incorporated and domiciled in Switzerland as a corporation limited by shares (*Aktiengesellschaft*) and operates under Art. 620 et seqq. of the Swiss Code of Obligations. UBS Group AG Shares are currently traded on the NYSE under the ticker symbol “UBS” and on the SIX under the ticker symbol “UBSG.” UBS Group AG’s principal executive offices are located at Bahnhofstrasse 45, 8001 Zurich, Switzerland, and its telephone number is +41 44 234 11 11.

Additional information about UBS Group AG can be found on its website at <https://www.ubs.com>. The information contained in, or that can be accessed through, UBS Group AG’s website is not intended to be incorporated into this prospectus. For additional information about UBS Group AG, see the section of this prospectus entitled “*Where You Can Find Additional Information*” beginning on page 109.

Credit Suisse Group AG

*Paradeplatz 8, 8001
Zurich, Switzerland
Tel: +41 44 333 11 11*

Credit Suisse Group is one of the world’s leading financial services providers. Its strategy is built on its leading Wealth Management and Swiss Bank franchises, with strong Asset Management as well as Markets capabilities. Credit Suisse Group seeks to follow a balanced approach to wealth management, aiming to capitalize on both the large pool of wealth within mature markets as well as the significant growth in wealth in Asia Pacific and other emerging markets, while also serving key developed markets with an emphasis on Switzerland. The bank employs more than 45,000 people (full-time equivalents) on a consolidated basis.

Credit Suisse is incorporated and domiciled in Switzerland as a corporation limited by shares (*Aktiengesellschaft*) and operates under Art. 620 et seqq. of the Swiss Code of Obligations. American depositary shares of Credit Suisse (each representing a beneficial interest in one Credit Suisse Ordinary Share) are currently traded on the NYSE under the ticker symbol “CS” and Credit Suisse Ordinary Shares are currently traded on the SIX under the ticker symbol “CSGN.” Credit Suisse’s principal executive offices are located at Paradeplatz 8, 8001 Zurich, Switzerland and its telephone number is +41 44 333 11 11.

Additional information about Credit Suisse can be found on its website at <https://www.credit-suisse.com>. The information contained in, or that can be accessed through, Credit Suisse’s website is not intended to be incorporated into this prospectus. For additional information about Credit Suisse, see the section of this prospectus entitled “*Where You Can Find Additional Information*” beginning on page 109.

BENEFICIAL OWNERSHIP OF SECURITIES

Major Shareholders of UBS Group AG

Under the Swiss Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading of June 19, 2015 (the “FMIA”), anyone directly, indirectly or acting in concert with third parties holding shares in a company listed in Switzerland or holding derivative rights related to shares in such a company directly, indirectly or in concert with third parties must notify the company and the SIX if the holding reaches, falls below or exceeds one of the following percentage thresholds: 3, 5, 10, 15, 20, 25, 33-1/3, 50 or 66-2/3% of voting rights, regardless of whether or not such rights may be exercised. Nominee companies that cannot autonomously decide how voting rights are exercised are not required to notify the company and SIX if they reach, exceed or fall below the aforementioned thresholds.

The following table sets forth information as of June 6, 2023 with respect to the ownership of more than 3% of UBS Group AG Shares according to the mandatory FMIA disclosure notifications filed with UBS Group AG and the SIX. Percentage computations are based on 3,462,087,722 UBS Group AG Shares outstanding as of June 6, 2023.

<u>Name of Beneficial Owner</u>	<u>UBS Group AG Shares Beneficially Owned</u>	<u>Percent of UBS Group AG Shares Beneficially Owned</u>
BlackRock Inc., New York	140,837,333	4.97%
Artisan Partners Limited Partnership, Milwaukee	106,896,637	3.09%
Dodge & Cox International Stock Fund, San Francisco	111,816,261	3.23%
Norges Bank, Oslo	115,997,262	3.35%

According to the share register of UBS Group AG, the shareholders (acting in their own name or in their capacity as nominees for other investors or beneficial owners) listed in the table below were registered with 3% or more of the total share capital of UBS Group AG.

<u>Name of Beneficial Owner</u>	<u>UBS Group AG Shares Beneficially Owned as of June 6, 2023</u>	<u>Percent of UBS Group AG Shares Beneficially Owned</u>			
		<u>as of June 6, 2023</u>	<u>as of December 31, 2022</u>	<u>as of December 31, 2022</u>	<u>as of December 31, 2022</u>
Chase Nominees Ltd., London	304,174,313	8.79%	8.60	8.89	10.39
DTC (Cede & Co.), New York*	254,100,761	7.34%	7.12	5.78	4.99
Nortrust Nominees Ltd., London	139,076,291	4.02%	4.33	4.80	5.15

* DTC (Cede & Co.), New York, “The Depository Trust Company” is a U.S. clearing organization.

As of March 27, 2023, to UBS Group AG Group’s knowledge, approximately 9.8% of the outstanding UBS Group AG Shares registered on our share register are beneficially owned by UBS Group AG shareholders that reside in the United States.

To the extent known to UBS Group AG, it is neither directly nor indirectly owned or controlled by one or more corporations, by any government or by any other natural or legal person(s) severally or jointly.

UBS Group AG does not know of any arrangements, the operation of which might at a subsequent date result in a change in control of UBS Group AG.

Security Ownership of Certain Beneficial Owners and Management of Credit Suisse

Credit Suisse Executive Board shareholdings

The shareholdings of the Credit Suisse Executive Board members as well as the value of the outstanding share-based compensation awards (comprising awards that vested between January 1, 2023 and May 23, 2023 that have not been delivered and unvested awards) held by Executive Board members as of May 23, 2023, are disclosed in the table below. These figures are based on shareholding and awards information available to Credit Suisse as of May 23, 2023, including such members' Credit Suisse shares held, as applicable, in internal Credit Suisse accounts and through external brokers.

On April 5, 2023, the Swiss Federal Council announced that certain outstanding deferred variable remuneration awards held by senior executives of Credit Suisse would be partially or fully cancelled. The Swiss Federal Ministry of Finance issued the decision to implement these cancellations on May 23, 2023. Such cancellations as required by such decision are reflected in the amounts below.

Executive Board holdings and values of deferred share-based awards by individual

Name	Number of Owned Shares ¹	Number of Unvested Shares ³	Number of Owned Shares & Unvested Shares ³	Values of Unvested Shares at Grant Date ²	Value of Unvested Shares at May 23, 2023 ³
Ulrich Körner	340,055	706	340,761	5,406.45	564.80
Markus Diethelm	—	—	—	—	—
Francesco De Ferrari	104,114	85,093	189,207	654,895.89	68,074.40
Christine Graeff	—	16,816	16,816	129,413	13,452.80
Joanne Hannaford	127,171	355,988	483,159	2,947,770.75	284,790.40
André Helfenstein	208,718	30,813	239,531	310,639.20	24,650.40
Dixit Joshi	35,816	294,553	330,369	1,209,005.01	235,642.40
Edwin Chee Ann Low	283,051	446,449	729,500	4,107,715.30	357,159.20
Francesca McDonagh	—	—	—	—	—
Nitaben Patel	24,273	162,618	186,891	718,495.90	130,094.40
David Wildermuth	162,427	171,507	333,934	1,339,690.03	137,205.60
Total	<u>1,285,625</u>	<u>1,564,543</u>	<u>2,850,168</u>	<u>11,423,031.87</u>	<u>1,251,634.40</u>

1 Includes shares that were initially granted as deferred compensation and have been delivered.

2 Determined based on the number of unvested awards multiplied by the share price at grant.

3 Includes deferred shares that vested between January 1, 2023, and May 23, 2023, that have not yet been delivered.

Credit Suisse Board of Directors shareholdings

The shareholdings of the Credit Suisse Board of Directors members as of May 23, 2023 are disclosed in the following table. As of May 23, 2023, there were no members of the Credit Suisse Board of Directors with outstanding options. These figures are based on shareholding and awards information available to Credit Suisse as of May 23, 2023, including such members' Credit Suisse shares held, as applicable, in internal Credit Suisse accounts and through external brokers.

<u>Name</u>	<u>Total Shares as of May 23, 2023¹</u>
Axel Lehmann	981,848
Mirko Bianchi	335,133
Clare Brady	248,372
Christian Gellerstad	751,784
Keyu Jin	187,161
Iris Bohnet	355,912
Amanda Norton	<u>183,934</u>
Total	3,044,144

1 Includes Credit Suisse shares that are subject to a blocking period of up to four years.

COMPARISON OF RIGHTS OF UBS GROUP AG SHAREHOLDERS AND CREDIT SUISSE SHAREHOLDERS

The rights of UBS Group AG shareholders are governed by Swiss law and UBS Group AG’s Articles of Association dated as of April 5, 2023 (which we refer to as the “UBS Group AoA”). The rights of holders of Credit Suisse Ordinary Shares are governed by Swiss law and the Articles of Association of Credit Suisse dated as of April 4, 2023 (which we refer to as the “CS AoA”). Upon completion, each Credit Suisse Share issued and outstanding immediately prior to completion will entitle its holder to receive, subject to the payment of certain fees to the Credit Suisse Depository in the case of Credit Suisse ADSs, the merger consideration consisting of 1/22.48 UBS Group AG Shares. As a result, following completion, the rights of holders of Credit Suisse Ordinary Shares will be governed by Swiss law and the UBS Group AoA.

While both UBS Group AG and Credit Suisse are companies organized under the laws of Switzerland, and accordingly, the shareholder rights of both companies are governed by Swiss law, there are certain differences between the rights of holders of Credit Suisse Ordinary Shares and the rights of UBS Group AG shareholders due to differences between the UBS Group AoA and the CS AoA. Set forth below are the material differences between the rights of UBS Group AG shareholders (and rights that Credit Suisse shareholders will have as UBS Group AG shareholders under the UBS Group AoA once they receive UBS Group AG Shares in the transaction), on the one hand, and the current rights of holders of Credit Suisse Ordinary Shares under the CS AoA, on the other hand.

The following comparison of shareholder rights is necessarily a summary and is not intended to be complete or to identify all differences that may, under given situations, be material to current holders of Credit Suisse Ordinary Shares, nor to be a complete summary of the relevant positions under of the UBS Group AoA and the CS AoA. The identification of specific differences is not intended to indicate that other equally or more significant differences do not exist. Also, as this comparison deals with the differences between the shareholder rights under the UBS Group AoA and the CS AoA, it does not purport to provide any description of the provisions of Swiss law on which the UBS Group AoA and the CS AoA are based. It should be noted, however, some differences between the UBS Group AoA and the CS AoA result from the fact that the UBS Group AoA take into account and incorporate the possibilities offered by the new provisions of Swiss corporate law which entered into force on January 1, 2023. While this is also the case for the CS AoA, not all proposed revisions were approved at the Shareholder’s meeting of April 4, 2023 due to non-fulfillment of the quorum requirements and as such, certain provisions in the CS AoA remain unchanged versus the former version of December 7, 2022. The below summary is qualified in its entirety by reference to Swiss law, the UBS Group AoA, and the CS AoA. For this section, please note that under Swiss law, holders of Credit Suisse ADSs are not considered shareholders. Therefore, the comparison of rights in this section is only with respect to the rights of holders of Credit Suisse Ordinary Shares.

UBS Group AG	Credit Suisse
Shareholder Registration	
Holders of UBS Group AG Shares will be entered into UBS Group AG’s share register as UBS Group AG shareholders with voting rights, if they expressly declare that they acquired such UBS Group AG Shares in their own name and for their own account. No right of registration of nominee holders is available. If a holder of UBS Group AG Shares is not prepared to provide a declaration in writing to disclose that such UBS Group AG Shares were acquired in his, her or its own name, the UBS Group AG board of directors may refuse to allow such UBS Group AG Shares to be entered with voting rights.	Holders of Credit Suisse Ordinary Shares will be entered into Credit Suisse’s share register as Credit Suisse shareholders with voting rights, if they expressly state that they acquired such Credit Suisse Ordinary Shares in their own name and for their own account. Any Credit Suisse shareholder not expressly stating in his or her application for registration that the shares concerned have been acquired for his or her own account (which we refer to as a “nominee holder”) may be entered for a maximum of 2% of Credit Suisse’s total outstanding share capital with voting rights in the Credit Suisse share register. In excess of such 2% limit, Credit Suisse Ordinary

Shares held by a nominee holder will only be granted voting rights if such nominee holder declares in writing that the nominee is prepared to disclose the name, address and shareholding of any person for whose account such nominee holder is holding 0.5% or more of the outstanding share capital of Credit Suisse.

Conditional Share Capital

UBS Group AG's share capital may be increased by an amount not exceeding CHF 12,170,583 through the issuance of a maximum of 121,705,830 fully paid UBS Group AG Shares upon exercise of employee options issued to employees and members of the management and of the UBS Group AG board of directors and its subsidiaries in accordance with the plan rules issued by the UBS Group AG board of directors and its compensation committee. The existing shareholders' preemptive (subscription) rights are excluded.

UBS Group AG's share capital may be increased by an amount not exceeding CHF 38,000,000 through the issuance of a maximum of 380,000,000 fully paid UBS Group AG Shares each through the voluntary or mandatory exercise of conversion rights and/or warrants granted in connection with the issuance of bonds or similar financial instruments by UBS Group AG or companies in the UBS Group on national or international capital markets. The existing shareholders' preemptive (subscription) rights are excluded.

Credit Suisse does not have any conditional share capital in place.

Authorized Share Capital

UBS does not have any authorized share capital in place.

Credit Suisse does not have any authorized share capital in place.

Right to Submit Agenda Items for Shareholders Meetings

UBS Group AG shareholders holding UBS Group AG Shares representing an aggregate nominal value of CHF 62,500 may request that items be placed on the agenda for consideration by the shareholders meeting of UBS Group AG or that motions relating to agenda items be included in the notice to convene the general meeting, if such proposals are submitted in writing within the deadline published by UBS Group AG and specify the requests for agenda items and motion(s) to be put forward. The deadline for submitting agenda items is not specified in the UBS Group AoA and is therefore determined by the board of directors. For the 2023 shareholders meeting, the actual deadline was 38 business days and 53 calendar days prior to the meeting date.

Credit Suisse shareholders holding Credit Suisse Shares representing at least 0.025 percent of the share capital or votes may require that a particular item appear on the agenda of the shareholders meeting of Credit Suisse or that a proposal relating to an agenda item be included in the notice convening the shareholders meeting, by submitting a corresponding request in writing, together with the relevant proposals, and at the same time depositing Credit Suisse Shares representing at least 0.025 percent of the share capital or votes for safekeeping. Such Credit Suisse Shares are to remain in safekeeping until the day after the relevant shareholders meeting. The request to include a particular item on the agenda, together with the relevant proposals, or the

request to include a proposal relating to an agenda item, must be submitted to the Credit Suisse board of directors not later than 45 days before the date of the relevant shareholders meeting.

Calling of Extraordinary Shareholders Meetings

A shareholders' meeting can be convened upon written request from one or more shareholders representing one twentieth of the share capital.

One or more shareholders whose combined holdings represent at least 5% of the share capital or votes can request that a shareholders' meeting be called.

Hybrid / Virtual General Meetings

The UBS Group AG board of directors may grant shareholders who are not present at the venue of the shareholder meeting the ability to exercise their rights by electronic means.

Alternatively and in exceptional circumstances, the board of directors may provide that the shareholders meeting shall be held by electronic means without a venue.

The board of directors can determine that the shareholders' meeting be held simultaneously at different venues, provided that the contributions of the participants are transmitted directly in video and audio to all venues and/or that shareholders, who are not present at a venue of the shareholders' meeting may exercise their rights by electronic means. Alternatively, the board of directors may also provide that the shareholders' meeting will be held by electronic means without a venue.

Shareholders Meetings Quorum

No specific quorum requirement applies to UBS Group AG shareholders meetings.

Based on the CS AoA, Credit Suisse shareholders meetings must have a quorum of at least half of Credit Suisse's share capital being represented for the passing of the following resolutions: (i) conversion of registered shares into bearer shares, (ii) amendment to the section of the CS AoA related to nominee holders and to the 2% restriction on voting rights for shares held by nominee holders, (iii) amendment to the section of the CS AoA relating to the exercise and restriction on voting rights, and (iv) dissolution of Credit Suisse.

Voting Procedures

The presiding chair of the UBS Group AG shareholders meeting shall decide whether voting on resolutions and elections will be conducted electronically, by a show of hands or by a written ballot. UBS Group AG shareholders holding UBS Group AG Shares that represent at least 3% of the votes represented at the shareholders meeting may always request that a vote or election take place electronically or by a written ballot. In the case of a written ballot, the presiding chair of the UBS Group AG shareholders meeting may rule that only the ballots of those UBS Group AG shareholders who choose to abstain or to cast an "against" vote will be collected, and that all other UBS Group AG Shares represented at the meeting at the time of the vote shall be deemed to be counted in favor to expedite the

The chairperson of the Credit Suisse shareholders meeting may allow elections and ballots to be conducted by a show of hands, by written ballot or by electronic means. In case of a tie, the chair of the relevant shareholders meeting has a casting vote with respect to elections and resolutions.

counting of the votes. The presiding chair of the shareholders meeting may also order that a resolution or election be repeated if, in their view, the results of the vote are in doubt. In this case, the preceding resolution or election shall be deemed to have not occurred. At any UBS Group AG shareholders meetings, the chair of such meeting has no casting vote.

Required Shareholder Votes

For UBS Group AG, while resolutions and elections at shareholders meetings are generally decided by a majority of the votes represented, the following resolutions require a qualified majority (in addition to the qualified majority requirements imposed by Swiss law):

- Two-thirds of the votes represented to
 - (i) remove one fourth or more of the members of the UBS Group AG board of directors,
 - (ii) amend the provision of the UBS Group AoA relating to the number of members of the UBS Group AG board of directors, and
 - (iii) amend or delete the provision in the UBS Group AoA relating to qualified majority.

For Credit Suisse, while resolutions and elections at shareholders meetings are generally passed with the approval of the majority of the votes represented at the meeting, the following resolutions require qualified majorities (in addition to the qualified majority requirements imposed by Swiss law):

- Three-quarters of the votes cast for
 - (i) conversion of registered shares into bearer shares and (ii) amendment to the section of the CS AoA relating to nominee holders and to the 2% restriction on voting rights for Credit Suisse Ordinary Shares held by nominee holders; and
- Seven-eighths of the votes cast for:
 - amendment to the section of the CS AoA relating to the exercise and restriction on voting rights.

LEGAL MATTERS

Bär & Karrer AG, counsel to UBS Group AG, has opined upon the validity of the UBS Group AG Shares being registered in connection with the transaction.

EXPERTS

UBS Group AG

The consolidated financial statements of UBS Group AG and UBS AG appearing in the UBS Group AG Annual Report, and the effectiveness of UBS Group AG and UBS AG's internal control over financial reporting as of December 31, 2022 have been audited by Ernst & Young Ltd., independent registered public accounting firm, as set forth in their reports thereon and included therein and herein. Such consolidated financial statements and UBS Group AG and UBS AG management's assessments of the effectiveness of internal control over financial reporting as of December 31, 2022 are included herein in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

Credit Suisse

The financial statements as of December 31, 2022 and 2021 and for each of the three years in the period ended December 31, 2022 and management's assessment of the effectiveness of internal control over financial reporting (which is included in management's report on internal control over financial reporting) of both Credit Suisse and its subsidiaries and Credit Suisse AG and its subsidiaries included in this prospectus have been so included in reliance on the reports (which contain adverse opinions on the effectiveness of Credit Suisse Group AG's and Credit Suisse AG's internal control over financial reporting) of PricewaterhouseCoopers AG, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

UBS Group AG

For additional information about UBS Group AG, see the below reference table that indicates where you, may locate additional information in the UBS Group AG SEC Filings on the topics listed.

For a description of the history and development of the company, including:	Please refer to the following sections (and pages) of the UBS Group AG Annual Report:
<ul style="list-style-type: none">• The legal and commercial name of the company, information about the company's incorporation, and information about the registered office and agent of the company;	<i>Corporate information and Contacts</i> (pg. 6). The registrants' agent is David Kelly, 600 Washington Boulevard, Stamford, CT 06901.
<ul style="list-style-type: none">• Important events in the development of the company's business;	<i>Our evolution</i> (pg. 14); <i>Our strategy</i> (pgs. 15-17); <i>Our businesses</i> (pgs. 18-28); Note 29 to each set of Financial Statements (<i>Changes in organization and acquisitions and disposals of subsidiaries and businesses</i>) (pgs. 354 and 475).
<ul style="list-style-type: none">• The company's principal capital investments and divestitures since the beginning of the last three fiscal years;	<i>Our businesses</i> (pgs. 18-28), as applicable, Note 11 to each set of Financial Statements (<i>Property, equipment and software</i>) (pgs. 291 and 410) and Note 29 to each set of Financial Statements (<i>Changes in organization and acquisitions and disposals of subsidiaries and businesses</i>) (354 and 475).
<ul style="list-style-type: none">• Any public takeover offers since the last fiscal year; and	Nothing to disclose.
<ul style="list-style-type: none">• Availability of the company's SEC filings.	<i>Information sources</i> (pg. 515).
For a description of the business, including:	Please refer to the following sections (and pages) of the UBS Group AG Annual Report:
<ul style="list-style-type: none">• The company's operations and principal activities, principal markets, and marketing channels;	<i>Our strategy, business model and environment</i> (pgs. 15-66), Note 2a to each set of Financial Statements (<i>Segment reporting</i>) (pgs. 277-278 and 396-397) and Note 2b to each set of Financial Statements (<i>Segment reporting by geographic location</i>) (pgs. 279 and 398). See also Supplement (pg. 11).
<ul style="list-style-type: none">• Seasonality of the company's business;	<i>Seasonal characteristics</i> (pg. 72).
<ul style="list-style-type: none">• Sources and availability of raw materials;	Not applicable.
<ul style="list-style-type: none">• Dependence on patents, licenses, contracts or manufacturing processes;	None.
<ul style="list-style-type: none">• The basis for statements regarding competitive position; and	Information as to the basis for these statements normally accompanies the statements, except where marked in the report as a statement based upon publicly available information or internal estimates, as applicable. <i>Our businesses</i> (pgs. 18-28), as applicable.

- Material government regulation.

Regulation and supervision (pgs. 50-53) and *Regulatory and legal developments* (pgs. 53-55). Supplement (pg. 12).

For a description of the company's organizational structure:

Please refer to the following sections (and pages) of the UBS Group AG Annual Report: *Our evolution* (pg. 14) and Note 28 to each set of Financial Statements (*Interests in subsidiaries and other entities*) (pgs. 350-354 and 471-475).

For a description of the company's material property, plants and equipment:

Please refer to the following sections (and pages) of the UBS Group AG Annual Report: *Property, plant and equipment* (pgs. 495 and 503), Note 1a, 7) to each set of Financial Statements (*Summary of material accounting policies: Property, equipment and software*) (pgs. 274 and 393), Note 11 to each set of Financial Statements (*Property, equipment and software*) (pgs. 291 and 410).

For a description of the company's related party transactions:

Please refer to the following sections (and pages) of the UBS Group AG Annual Report: *Loans granted to GEB members* (pg. 238), *Loans granted to BoD members* (pg. 239) and Note 30 to each set of Financial Statements (*Related parties*) (pgs. 355-356 and 476-477).

For a description of the company's material legal or arbitration proceedings:

Please refer to the following sections (and pages) of the UBS Group AG SEC Filings:

Information on material legal and regulatory proceedings is in Note 17 to each set of Financial Statements (*Provisions and contingent liabilities*) (pgs. 295-301 and 414-421, as supplemented by Note 13 of the interim financial statements contained in UBS Group AG's Report on Form 6-K dated April 25, 2023).

Description of exchange controls that may affect the import or export of capital and remittance of dividends to nonresident holders:

Other than in relation to economic sanctions, there are no restrictions under the Articles of Association of UBS Group AG, nor under Swiss law, as presently in force, that limit the right of non-resident or foreign owners to hold UBS Group AG's securities freely. There are currently no Swiss foreign exchange controls or other Swiss laws restricting the import or export of capital by UBS Group AG or its subsidiaries, nor restrictions affecting the remittance of dividends, interest or other payments to non-resident holders of UBS Group AG securities. The Swiss federal government may impose sanctions on particular countries, regimes, organizations or persons which may create restrictions on exchange of

control. A current list, in German, French and Italian, of such sanctions can be found at www.seco-admin.ch. UBS Group AG may also be subject to sanctions regulations from other jurisdictions where it operates imposing further restrictions.

For information regarding taxes to which U.S. shareholders may be subject:

Please refer to the following sections (and pages) of the UBS Group AG Annual Report: Supplement (pgs. 17-19)

For management's discussion and analysis of results of operations and financial condition, including:

Please refer to the following sections (and pages) of the UBS Group AG SEC Filings:

- Operating results;

Our key figures (pg. 8), *UBS AG consolidated key figures* (pg. 362), *Targets, aspirations and capital guidance* (pg. 17), *Our businesses* (pg. 18-28), *Group performance* (pg. 68-73), financial and operating performance by business division and Group Functions (pgs. 74-81), *Income statement* (pgs. 251 and 371), Note 2a to each set of Financial Statements (*Segment reporting*) (pgs. 277-278 and 396-397), and *Selected financial data* (pgs. 494-495 and 502-503).

Risk factors (pgs. 56-66), *Capital management* (pgs. 135-149), *Currency Management* (pgs. 159-160) and Note 25 to each set of Financial Statements (*Hedge Accounting*) (pgs. 337-340 and 456-459).

Our environment (pgs. 28-32), *Regulation and supervision* (pgs. 50-53), *Regulatory and legal developments* (pgs. 53-55), *Accounting and financial reporting* (pg. 67), Note 1b to each set of Financial Statements (*Changes in accounting policies, comparability and other adjustments*) (pgs. 276 and 395).

For a discussion on operating results for the quarter ended March 31, 2023, please see Section 2 of UBS Group AG's Report on Form 6-K dated April 25, 2023.

- Liquidity and capital resources;

Risk factors (pgs. 56-66), *Group performance* (pgs. 68-73), financial and operating performance by business division and Group Functions (pgs. 74-81), *Seasonal characteristics* (pg. 72), *Interest rate risk in the banking book* (pgs. 115-118), *Capital, liquidity and funding, and balance sheet* (pgs. 134-162), *Asset encumbrance* (pg. 154), Note 22 to each set of Financial Statements (*Restricted and transferred financial assets*) (pgs. 330-332 and 449- 451) and Note 28(b) to each set of Financial Statements (*Interests in associates and joint ventures*) (pgs. 352 and 473).

Liquidity and capital management is undertaken at UBS as an integrated asset and liability management function. While we believe our ‘working capital’ is sufficient for the company’s present requirements, it is our opinion that, as a bank, our liquidity coverage ratio (LCR) is the more relevant measure. For more information see, *Liquidity coverage ratio* (pg. 152).

Capital, liquidity and funding, and balance sheet (pgs. 134-162), *Currency Management* (pgs. 159-160), Note 10 to each set of Financial Statements (*Derivative instruments*) (pgs. 289-291 and 408-410), Note 15 to each set of Financial Statements (*Debt issued designated at fair value*) (pgs. 294 and 413), Note 16 to each set of Financial Statements (*Debt issued measured at amortized cost*) (pgs. 295 and 414), Note 18 to each set of Financial Statements (*Other liabilities*) (pgs. 302 and 421), and Note 25 to each set of Financial Statements (*Hedge Accounting*) (pgs. 337-340 and 456-459).

Material cash requirements (pg. 158), *Liquidity and funding management* (pgs. 150-152), Note 23 to each set of Financial Statements (*Maturity analysis of assets and liabilities*) (pgs. 332-334 and 451-453), and Note 11 to each set of Financial Statements (*Property, equipment and software*) (pgs. 291 and 410).

For a discussion on liquidity and capital resources as of and for the quarter ended March 31, 2023, please see Section 3 of UBS Group AG’s Report on Form 6-K dated April 25, 2023.

- Trend information; and

Our businesses (pgs. 18-28), *Our environment* (pgs. 28-32), *Regulatory and legal developments* (pgs. 53-55), *Risk factors* (pgs. 56-66), *Financial and operating performance* (pgs. 67-81) and *Top and emerging risks* (pgs. 86-87).

- Critical accounting estimates.

Not applicable.

For quantitative and qualitative disclosures of market risk:

Please refer to the following sections (and pages) of the UBS Group AG Annual Report: *Market risk* (pgs. 111-119).

For financial statements:

Please refer to the following sections (and pages) of the UBS Group AG Annual Report: *Financial statements* (pgs. 242-502), *Significant regulated subsidiary and sub-group information* (pgs. 521-522) and *Additional regulatory information* (pgs. 523-539), as supplemented by the section entitled

“Unaudited Pro Forma Condensed Combined Financial Information” in this prospectus and Section 4 of UBS Group AG’s Report on Form 6-K dated April 25, 2023.

For information regarding trading markets of the company’s ordinary shares:

Please refer to the following sections (and pages) of the UBS Group AG Annual Report: *Listing of UBS Group AG shares* (pg. 162).

Credit Suisse

For additional information about Credit Suisse, see the below reference table that indicates where you may locate additional information in the Credit Suisse Filings on the topics listed.

For a description of the history and development of the company, including:

Please refer to the following sections (and pages) of the Credit Suisse Annual Report (unless otherwise noted):

- The legal and commercial name of the company, information about the company’s incorporation, and information about the registered office and agent of the company;
- Important events in the development of the company’s business;
- The company’s principal capital investments and divestitures since the beginning of the last three fiscal years;

IV — Corporate Governance — Overview — Corporate Governance framework — Company details (pg. 174).

I — Information on the Company — Strategy (pgs. 10-13); *I — Information on the Company — Divisions* (pgs. 14-20); Note 3 to VI — Consolidated financial statements — Credit Suisse Group (*Business developments, significant shareholders and subsequent events*) (pgs. 276-277); Note 3 to VIII — Consolidated financial statements — Credit Suisse (Bank) (*Business developments, significant shareholders and subsequent events*) (pg. 441); Note 4 to VI — Consolidated financial statements — Credit Suisse Group (*Segment information*) (pgs. 278-279), Note 4 to VIII — Consolidated financial statements — Credit Suisse (Bank) (*Segment information*) (pg. 441); as supplemented by *Other Information* (pgs. 6-8) of the Q1 Earnings Release contained in Credit Suisse’s Report on Form 6-K dated April 24, 2023, and the section entitled “*Recent Developments*” in this prospectus.

I — Information on the Company — Strategy (pgs. 10-13); *I — Information on the Company — Divisions* (pgs. 14-20); Note 3 to VI — Consolidated financial statements — Credit Suisse Group (*Business developments, significant shareholders and subsequent events*) (pgs. 276-277), Note 3 to VIII — Consolidated financial statements — Credit Suisse (Bank) (*Business developments, significant shareholders and subsequent events*) (pg. 441); as supplemented by *Other Information* (pgs. 6-8) of the Q1 Earnings Release contained in Credit Suisse’s Report on Form 6-K dated April 24, 2023.

- Any public takeover offers since the last fiscal year; and
- Availability of the company’s SEC filings.

Other Information (pg. 6) of the Q1 Earnings Release contained in Credit Suisse’s Report on Form 6-K dated April 24, 2023, and the section entitled “*Background and Reasons for the Transaction*” in this prospectus.

Item 10.H — Documents on display (pg. 11) of Credit Suisse’s Form 20-F for the year ended 2022; as supplemented by *Results Overview* and segment information for *Wealth Management, Swiss Bank, Investment Bank, Corporate Center and Capital Release Unit and Additional Financial Metrics* (pgs. 10-33) of the Q1 Earnings Release contained in Credit Suisse’s Report on Form 6-K dated April 24, 2023.

For a description of the business, including:

Please refer to the following sections (and pages) of the Credit Suisse Annual Report:

- The company’s operations and principal activities, principal markets, and marketing channels;
- Seasonality of the company’s business;
- Sources and availability of raw materials;
- Dependence on patents, licenses, contracts or manufacturing processes;
- The basis for statements regarding competitive position; and
- Material government regulation.

I — Information on the Company — Divisions (pgs. 14-20); Note 4 to VI — Consolidated financial statements — Credit Suisse Group (*Segment information*) (pgs. 278-279), Note 4 to VIII — Consolidated financial statements — Credit Suisse (Bank) (*Segment information*) (pg. 441).

I — Information on the Company — Divisions (pgs. 14-20); Note 4 to VI — Consolidated financial statements — Credit Suisse (*Segment information*) (pgs. 278-279), Note 4 to VIII — Consolidated financial statements — Credit Suisse (Bank) (*Segment information*) (pg. 441).

Not applicable.

None.

The “Sources” section located inside Credit Suisse’s Form 20-F cover (pg. 20-F/6).

I — Information on the Company — Regulation and supervision (pgs. 21-39); as supplemented by *Other Information* (pgs. 6-8) of the Q1 Earnings Release contained in Credit Suisse’s Report on Form 6-K dated April 24, 2023, and the sections entitled “*Background and Reasons for the Transaction*” and “*Risk Factors*” in this prospectus.

For a description of the company’s organizational structure:

Please refer to the following sections (and pages) of the Credit Suisse Annual Report: *I — Information on the Company — Strategy* (pgs. 10-13); *II — Operating and financial review — Credit Suisse — Group and Bank differences* (pg. 73); and Note 41 to VI — Consolidated financial statements — Credit

<p>For a description of the company’s material property, plants and equipment:</p>	<p>Suisse Group (<i>Significant subsidiaries and equity method investments</i>) (pgs. 400-402), Note 40 to VIII — Consolidated financial statements — Credit Suisse (Bank) (<i>Significant subsidiaries and equity method investments</i>) (pgs. 503-504).</p> <p>Please refer to the following sections (and pages) of the Credit Suisse Annual Report: <i>X — Additional information — Other information — Property and Equipment</i> (pg. 569).</p>
<p>For a description of the company’s material legal or arbitration proceedings:</p>	<p>Please refer to the following sections (and pages) of the Credit Suisse Annual Report: Note 40 to VI — Consolidated financial statements — Credit Suisse Group (<i>Litigation</i>) (pgs. 389-399), Note 39 to VIII — Consolidated financial statements — Credit Suisse (Bank) (<i>Litigation</i>) (pg. 502); as supplemented by <i>Additional Financial Metrics</i> (pg. 33) of the Q1 Earnings Release contained in Credit Suisse’s Report on Form 6-K dated April 24, 2023.</p>
<p>Description of exchange controls that may affect the import or export of capital and remittance of dividends to nonresident holders:</p>	<p>Please refer to the following sections (and pages) of the Credit Suisse Annual Report: <i>X — Additional information — Other information — Exchange Controls</i> (pg. 564).</p>
<p>For information regarding taxes to which U.S. shareholders may be subject:</p>	<p>Please refer to the following sections (and pages) of the Credit Suisse Annual Report: <i>X — Additional information — Other information — Taxation</i> (pgs. 564-568); as supplemented by as supplemented by the section entitled “<i>Material U.S. Federal Income Tax Consequences</i>” in this prospectus.</p>
<p>For management’s discussion and analysis of results of operations and financial condition, including:</p>	<p>Please refer to the following sections (and pages) of the Credit Suisse Annual Report (unless otherwise specified):</p>
<ul style="list-style-type: none"> • Operating results; 	<p><i>II — Operating and financial review</i> (pgs. 57-104); <i>I — Information on the Company — Regulation and supervision</i> (pgs. 21-39); <i>III — Treasury, Risk, Balance sheet and Off-balance sheet — Liquidity and funding management — Funding management — Structural interest rate management</i> (pg. 113); <i>III — Treasury, Risk, Balance sheet and Off-balance sheet — Capital management — Foreign exchange exposure</i> (pg. 130); as supplemented by <i>Results Overview</i> and segment information for <i>Wealth Management, Swiss Bank, Investment Bank, Corporate Center and Capital Release Unit and Additional Financial Metrics</i> (pgs. 10-33) of the Q1 Earnings Release contained in Credit Suisse’s Report on Form 6-K dated April 24, 2023.</p>
<ul style="list-style-type: none"> • Liquidity and capital resources; 	<p><i>III — Treasury, Risk, Balance sheet and Off-balance sheet — Liquidity and funding management</i> (pgs. 106-114); <i>III — Treasury, Risk, Balance sheet and Off-</i></p>

balance sheet — Capital management (pgs. 115 to 131); *III — Treasury, Risk, Balance sheet and Off-balance sheet — Balance sheet and off-balance sheet — Contractual obligations and other commercial commitments* (pg. 168); *Consolidated statements of cash flows* in VI — Consolidated financial statements — Credit Suisse Group (pgs. 264-265) and *Consolidated statements of cash flows* in VIII — Consolidated financial statements — Credit Suisse (Bank) (pgs. 438-439); Note 26 to VI — Consolidated financial statements — Credit Suisse Group (*Long-term debt*) (pgs. 309-310) and Note 25 to VIII — Consolidated financial statements — Credit Suisse (Bank) (*Long-term debt*) (pg. 460); Note 38 to VI — Consolidated financial statements — Credit Suisse Group (*Capital adequacy*) (pgs. 386-387) and Note 37 to VIII — Consolidated financial statements — Credit Suisse (Bank) (*Capital adequacy*) (pgs. 501-502); as supplemented by *Additional Financial Metrics* (pg. 33) of the Q1 Earnings Release contained in Credit Suisse’s Report on Form 6-K dated April 24, 2023.

- Trend information; and

Item 5.D of Credit Suisse’s Form 20-F for the year ended 2022 (pg. 20-F/8).

- Critical accounting estimates.

II — Operating and financial review — Critical accounting estimates (pgs. 97-104).

For quantitative and qualitative disclosures of market risk:

Please refer to the following sections (and pages) of the Credit Suisse Annual Report: *I — Information on the company — Risk factors* (pgs. 40-56); *III — Treasury, Risk, Balance sheet and Off-balance sheet — Risk management* (pgs. 132-165); Note 33 to VI — Consolidated financial statements — Credit Suisse Group (*Derivatives and hedging activities*) (pgs. 338-344); Note 32 to Consolidated financial statements — Credit Suisse AG (*Derivatives and hedging activities*) (pgs. 478-481); as supplemented by *Risk Factors* (pg. 9) and *Appendix* (pg. 39) of the Q1 Earnings Release contained in Credit Suisse’s Report on Form 6-K dated April 24, 2023.

For financial statements:

Please refer to the following sections (and pages) of the Credit Suisse Annual Report: *Financial statements* (pgs. 255-408 and 429-506), as supplemented by the Q1 Earnings Release contained in Credit Suisse’s Report on Form 6-K dated April 24, 2023, and the section entitled “*Unaudited Pro Forma Condensed Combined Financial Information*” in this prospectus.

For information regarding trading markets of the company's ordinary shares:

Please refer to the following sections (and pages) of the Credit Suisse Annual Report: *X — Additional information — Other information — Listing details* (pg. 569).

UBS Group AG incorporates the merger agreement by reference to Exhibit 2.1 to the registration statement (of which this prospectus forms a part).

**ANNEX A: UBS GROUP AG'S ANNUAL REPORT ON FORM 20-F FOR THE FISCAL YEAR ENDED
DECEMBER 31, 2022 FILED WITH THE SEC ON MARCH 6, 2023**

A-1

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 20-F

(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____.

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

UBS Group AG

Commission file number: 1-36764

UBS AG

Commission file number: 1-15060

(Exact Name of Registrants as Specified in Their Respective Charters)

Switzerland

(Jurisdiction of Incorporation or Organization)

UBS Group AG
Bahnhofstrasse 45, CH-8001 Zurich, Switzerland
(Address of Principal Executive Office)

UBS AG
Bahnhofstrasse 45, CH-8001 Zurich, Switzerland and
Aeschenvorstadt 1, CH-4051 Basel, Switzerland
(Address of Principal Executive Offices)

David Kelly
600 Washington Boulevard
Stamford, CT 06901
Telephone: (203) 719 3000

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:
Please see page 3.

Securities registered or to be registered pursuant to Section 12(g) of the Act:
Please see page 3.

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:
Please see page 3.

Indicate the number of outstanding shares of each of each issuer's classes of capital or common stock as of 31 December 2022:

UBS Group AG
Ordinary shares, par value CHF 0.10 per share:
3,524,635,722 ordinary shares
(including 416,909,010 treasury shares)

UBS AG
Ordinary shares, par value CHF 0.10 per share:
3,858,408,466 ordinary shares
(none of which are treasury shares)

Indicate by check mark if the registrants are well-known seasoned issuers, as defined in Rule 405 of the Securities Act.

UBS Group AG
Yes No

UBS AG
Yes No

If this report is an annual or transition report, indicate by check mark if the registrants are not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes No

Note — Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the Registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrants were required to file such reports) and (2) have been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrants have submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrants were required to submit such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer or an emerging growth company. See definition of "accelerated filer and large accelerated filer" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check One):

UBS Group AG

Large accelerated filer Accelerated filer Non-accelerated filer
Emerging growth company

UBS AG

Large accelerated filer Accelerated filer Non-accelerated filer
Emerging growth company

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

UBS Group AG
Yes No

UBS AG
Yes No

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

UBS Group AG
Yes No

UBS AG
Yes No

Indicate by check mark which basis of accounting the registrants have used to prepare the financial statements included in this filing.

U.S. GAAP

International Financial Reporting Standards as issued
by the International Accounting Standards Board

Other

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrants have elected to follow.

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrants are shell companies (as defined in Rule 12b-2 of the Exchange Act)

Yes No

Securities registered or to be registered pursuant to Section 12(b) of the Act:

UBS Group AG

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Ordinary Shares (par value of CHF 0.10 each)	UBS	New York Stock Exchange

UBS AG

Title of each class	Trading symbol(s)	Name of each exchange on which registered
ETRACS Alerian Midstream Energy Index ETN due June 21, 2050	AMNA	NYSE Arca
ETRACS Alerian Midstream Energy High Dividend Index ETN due July 19, 2050	AMND	NYSE Arca
ETRACS Alerian Midstream Energy Total Return Index ETN due October 20, 2050	AMTR	NYSE Arca
ETRACS Alerian MLP Index ETN Series B due July 18, 2042	AMUB	NYSE Arca
ETRACS Quarterly Pay 1.5x Leveraged MVIS BDC Index ETN due June 10, 2050	BDCX	NYSE Arca
E-TRACS MVIS Business Development Companies Index ETN due April 26, 2041	BDCZ	NYSE Arca
ETRACS Monthly Pay 1.5x Leveraged Closed-End Fund Index ETN due June 10, 2050	CEFD	NYSE Arca
E-TRACS Bloomberg Commodity Index Total Return Series B due October 31, 2039	DJCB	NYSE Arca
ETRACS 2x Leveraged MSCI USA ESG Focus TR ETN due September 15, 2061	ESUS	NYSE Arca
UBS AG FI Enhanced Large Cap Growth ETN due June 19, 2024	FBGX	NYSE Arca
ETRACS 2x Leveraged IFED Invest with the Fed TR Index ETN due September 15, 2061	FEDL	NYSE Arca
UBS AG FI Enhanced Europe 50 ETN due February 12, 2026	FIEE	NYSE Arca
UBS AG FI Enhanced Global High Yield ETN due March 3, 2026	FIHD	NYSE Arca
ETRACS Monthly Pay 2xLeveraged US High Dividend Low Volatility ETN Series B due October 21, 2049	HDLB	NYSE Arca
ETRACS IFED Invest with the Fed TR Index ETN due September 15, 2061	IFED	NYSE Arca
ETRACS 2x Leveraged US Value Factor TR ETN due February 9, 2051	IWDL	NYSE Arca
ETRACS 2x Leveraged US Growth Factor TR ETN due February 9, 2051	IWFL	NYSE Arca
ETRACS 2x Leveraged US Size Factor TR ETN due February 9, 2051	IWML	NYSE Arca
E-TRACS Alerian MLP Infrastructure Index Series B due April 2, 2040	MLPB	NYSE Arca

ETRACS Quarterly Pay 1.5x Leveraged Alerian MLP Index ETN due June 10, 2050	MLPR	NYSE Arca
ETRACS 2x Leveraged MSCI US Momentum Factor TR ETN due February 9, 2051	MTUL	NYSE Arca
ETRACS Monthly Pay 1.5x Leveraged Mortgage REIT ETN due June 10, 2050	MVRL	NYSE Arca
ETRACS Monthly Pay 2xLeveraged Preferred Stock ETN due September 25, 2048	PFFL	NYSE Arca
ETRACS Linked to the NYSE® Pickens Core Midstream Index due August 20, 2048	PYPE	NYSE Arca
ETRACS 2x Leveraged MSCI US Quality Factor TR ETN due February 9, 2051	QULL	NYSE Arca
ETRACS 2x Leveraged US Dividend Factor TR ETN due February 9, 2051	SCDL	NYSE Arca
ETRACS Monthly Pay 2xLeveraged US Small Cap High Dividend ETN Series B due November 10, 2048	SMHB	NYSE Arca
E-TRACS CMCI Total Return ETN Series B due April 5, 2038	UCIB	NYSE Arca
ETRACS 2x Leveraged MSCI US Minimum Volatility Factor TR ETN due February 9, 2051	USML	NYSE Arca

Securities registered or to be registered pursuant to Section 12(g) of the Act:

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

Cautionary Statement: Refer to the *Cautionary Statement Regarding Forward-Looking Statements* section in the Annual Report 2022 (page 516).

Cross-reference table

Set forth below are the respective items of SEC Form 20-F, and the locations in this document where the corresponding information can be found.

- **Annual Report** refers to the Annual Report 2022 of UBS Group AG and UBS AG annexed hereto, which forms an integral part hereof.
- **Supplement** refers to certain supplemental information contained in this forepart of the Form 20-F, starting on page 11 following the cross-reference table.
- **Financial Statements** refers to the consolidated financial statements of either UBS Group AG or UBS AG, or both, depending upon the context, contained in the Annual Report.

In the cross-reference table below, page numbers refer to either the Annual Report or the Supplement, as noted.

Please see page 9 of the Annual Report for definitions of terms used in this Form 20-F relating to UBS.

<u>Form 20-F item</u>	<u>Response or location in this filing</u>
Item 1. Identity of Directors, Senior Management and Advisors.	Not applicable.
Item 2. Offer Statistics and Expected Timetable.	Not applicable.
Item 3. Key Information	
B – Capitalization and Indebtedness.	Not applicable.
C – Reasons for the Offer and Use of Proceeds.	Not applicable.
D – Risk Factors.	Annual Report, <i>Risk factors</i> (56-66).
Item 4. Information on the Company.	
A – History and Development of the Company	1-3: Annual Report, <i>Corporate information and Contacts</i> (6). The registrants’ agent is David Kelly, 600 Washington Boulevard, Stamford, CT 06901. 4: Annual Report, <i>Our evolution</i> (14); <i>Our strategy</i> (15-17); <i>Our businesses</i> (18-28); Note 29 to each set of Financial Statements (<i>Changes in organization and acquisitions and disposals of subsidiaries and businesses</i>) (354 and 475) 5-6: Annual Report, <i>Our businesses</i> (18-28), as applicable, Note 11 to each set of Financial Statements (<i>Property, equipment and software</i>) (291 and 410) and Note 29 to each set of Financial Statements (<i>Changes in organization and acquisitions and disposals of subsidiaries and businesses</i>) (354 and 475). 7: Nothing to disclose. 8: Annual Report, <i>Information sources</i> (515).
B – Business Overview.	1, 2 and 5: Annual Report, <i>Our strategy, business model and environment</i> (15-66), Note 2a to each set of Financial Statements (<i>Segment reporting</i>) (277-278 and 396-397) and Note 2b to each set of Financial Statements (<i>Segment reporting by geographic location</i>) (279 and 398). See also Supplement (11). 3: Annual Report, <i>Seasonal characteristics</i> (72). 4: Not applicable. 6: None. 7: Information as to the basis for these statements normally accompanies the statements, except where marked in the report as a statement based upon publicly available information or internal estimates, as applicable. Annual Report, <i>Our businesses</i> (18-28), as applicable. 8: Annual Report, <i>Regulation and supervision</i> (50-53) and <i>Regulatory and legal developments</i> (53-55). Supplement (12).
C – Organizational Structure.	Annual Report, <i>Our evolution</i> (14) and Note 28 to each set of Financial Statements (<i>Interests in subsidiaries and other entities</i>) (350-354 and 471-475).

D – Property, Plant and Equipment.	Annual Report, <i>Property, plant and equipment</i> (495 and 503), Note 1a, 7) to each set of Financial Statements (<i>Summary of material accounting policies: Property, equipment and software</i>) (274 and 393), Note 11 to each set of Financial Statements (<i>Property, equipment and software</i>) (291 and 410).
Information required by SEC Regulation S-K Part 1400	Annual Report, <i>Information required under SEC regulation S-K: Subpart 1400</i> (496-501 and 504-509), <i>Loss history statistics</i> (110), and Note 9 to each set of Financial Statements (<i>Financial assets at amortized cost and other positions in scope of expected credit loss measurement</i>) (285-289 and 404-408).
Item 4A. Unresolved Staff Comments.	None.
Item 5. Operating and Financial Review and Prospects.	
A – Operating Results.	<p>1: Annual Report, <i>Our key figures</i> (8), <i>UBS AG consolidated key figures</i> (362), <i>Targets, aspirations and capital guidance</i> (17), <i>Our businesses</i> (18-28), <i>Group performance</i> (68- 73), financial and operating performance by business division and Group Functions (74- 81), <i>Income statement</i> (251 and 371), Note 2a to each set of Financial Statements (<i>Segment reporting</i>) (277-278 and 396-397), and <i>Selected financial data</i> (494-495 and 502-503).</p> <p>2: Not applicable</p> <p>3: Annual Report, <i>Risk factors</i> (56-66), <i>Capital management</i> (135-149), <i>Currency Management</i> (159-160) and Note 25 to each set of Financial Statements (<i>Hedge Accounting</i>) (337-340 and 456-459).</p> <p>4: Annual Report, <i>Our environment</i> (28-32), <i>Regulation and supervision</i> (50-53), <i>Regulatory and legal developments</i> (53-55), <i>Accounting and financial reporting</i> (67), Note 1b to each set of Financial Statements (<i>Changes in accounting policies, comparability and other adjustments</i>) (276 and 395).</p> <p>A discussion on the results for the year 2021 compared with 2020 can be found on UBS annual report 2021 filed with the SEC in Form 20-F on March 7, 2022, under <i>Financial and operating performance</i> and under <i>Financial statements</i> of UBS Group AG and UBS AG.</p>
B – Liquidity and Capital Resources.	<p>1: Annual Report, <i>Risk factors</i> (56-66), <i>Group performance</i> (68-73), financial and operating performance by business division and Group Functions (74-81), <i>Seasonal characteristics</i> (72), <i>Interest rate risk in the banking book</i> (115-118), <i>Capital, liquidity and funding, and balance sheet</i> (134-162), <i>Asset encumbrance</i> (154), Note 22 to each set of Financial Statements (<i>Restricted and transferred financial assets</i>) (330-332 and 449- 451) and Note 28(b) to each set of Financial Statements (<i>Interests in associates and joint ventures</i>) (352 and 473).</p> <p>Liquidity and capital management is undertaken at UBS as an integrated asset and liability management function. While we believe our ‘working capital’ is sufficient for the company’s present requirements, it is our opinion that, as a bank, our liquidity coverage ratio (LCR) is the more relevant measure. For more information see, Annual Report, <i>Liquidity coverage ratio</i> (152).</p> <p>2: Annual Report, <i>Capital, liquidity and funding, and balance sheet</i> (134-162), <i>Currency Management</i> (159-160), Note 10 to each set of Financial Statements (<i>Derivative instruments</i>) (289-291 and 408-410), Note 15 to each set of Financial Statements (<i>Debt issued designated at fair value</i>) (294 and 413), Note 16 to each set of Financial Statements (<i>Debt issued measured at amortized cost</i>) (295 and 414), Note 18 to each set of Financial Statements (<i>Other liabilities</i>) (302 and 421), and Note 25 to each set of Financial Statements (<i>Hedge Accounting</i>) (337-340 and 456-459).</p> <p>3: Annual Report, <i>Material cash requirements</i> (158), <i>Liquidity and funding management</i> (150-152), Note 23 to each set of Financial Statements (<i>Maturity analysis of assets and liabilities</i>) (332-334 and 451-453), and Note 11 to each set of Financial Statements (<i>Property, equipment and software</i>) (291 and 410).</p>
C—Research and Development, Patents and Licenses, etc.	Not applicable.
D—Trend Information.	Annual Report, <i>Our businesses</i> (18-28), <i>Our environment</i> (28-32), <i>Regulatory and legal developments</i> (53-55), <i>Risk factors</i> (56-66), <i>Financial and operating performance</i> (67- 81) and <i>Top and emerging risks</i> (86-87).
E—Critical Accounting Estimates	Not applicable.

Item 6. Directors, Senior Management and Employees.

- A – Directors and Senior Management. 1, 2 and 3: Annual Report, *Board of Directors* (173-188) and *Group Executive Board* (189-195). 4, 5: None.
- B – Compensation. 1: Annual Report, *Compensation* (201-241), Note 1a, 4) to each set of Financial Statements (*Share-based and other deferred compensation plans*) (272 and 391), Note 27 to each set of Financial Statements (*Employee benefits: variable compensation*) (347-350 and 467-471) and Note 30 to each set of Financial Statements (*Related parties*) (355-356 and 476-477). 2: Annual Report, *Compensation* (201-241), Note 26 to each set of Financial Statements (*Post-employment benefit plans*) (340-347 and 459-467).
- C – Board practices. 1: Annual Report, *Board of Directors* (173-188). The term of office for members of the Board of Directors and its Chairman expires after completion of the next Annual General Meeting. The next UBS Group AG Annual General Meeting is scheduled on 5 April 2023, and the next UBS AG Annual General Meeting is scheduled on 4 April 2023. 2: Annual Report, *Compensation* (201-241), *Clauses on change of control* (196), and Note 30 to each set of Financial Statements (*Related parties*) (355-356 and 476-477). 3: Annual Report, *Audit Committee* (182) and *Compensation Committee* (183). Refer to the Supplement (15) for information on UBS AG's Board of Directors' executive sessions.
- D—Employees. Annual Report, *Employees* (39-41), and *Selected financial data* (494-495 and 502-503).

In addition to seeking out employee feedback, we maintain an open dialogue with our formal employee representation groups. The UBS Employee Forum (our European Works Council) and the UBS Europe SE Works Council represent 16 countries and consider topics related to our performance and operations. Local works councils such as the Employee Representation Committee in Switzerland discuss topics such as benefits, workplace conditions and redundancies. Collectively, these groups represent approximately 47% of our global workforce.

Where applicable, our operations are subject to collective bargaining agreements (CBAs). In all those locations, the employment terms and conditions for any employees not covered by CBAs are aligned with those agreements. Benefits are aligned with local markets, and due to the competitive labor environments in which we operate, often go beyond legal requirements or market practice.

During 2022, the Global Research and Analytics function was re-aligned, resulting in a shift of personnel from Group Functions to the Investment Bank. Comparative figures have been restated accordingly for both UBS Group AG and UBS AG on the tables below.

UBS group AG (consolidated) personnel by business division and Group Functions:

<i>Full-time equivalents</i>	31.12.22	As of 31.12.21	31.12.20
Personnel (full-time equivalents)	72,597	71,385	71,551
<i>Global Wealth Management</i>	24,351	24,093	24,200
<i>Personal & Corporate Banking</i>	5,725	5,791	6,021
<i>Asset Management</i>	2,848	2,693	2,642
<i>Investment Bank</i>	9,177	8,667	8,575
<i>Group Functions</i>	30,497	30,142	30,113

UBS AG (consolidated) personnel by business division and Group Functions:

<i>Full-time equivalents</i>	31.12.22	As of 31.12.21	31.12.20
Personnel (full-time equivalents)	47,628	47,067	47,546
<i>Global Wealth Management</i>	23,292	22,986	23,039
<i>Personal & Corporate Banking</i>	4,923	4,993	5,131
<i>Asset Management</i>	2,450	2,375	2,351
<i>Investment Bank</i>	6,929	6,644	6,518
<i>Group Functions</i>	10,035	10,069	10,507

E—Share Ownership. 1 and 2: Annual Report, *Compensation* (201-241), Note 27 to each set of Financial Statements (*Employee benefits: variable compensation*) (347-350 and 467-471) and Note 30b to each set of Financial Statements (*Equity holdings of key management personnel*) (355 and 476).

F—Disclosure of a registrant’s action to recover erroneously awarded compensation. Not applicable.

Item 7. Major Shareholders and Related Party Transactions.

A—Major Shareholders. Annual Report, *Group structure and shareholders* (166-167), *Share capital structure* (167-171) and *Voting rights, restrictions and representation* (171).

The number of shares of UBS Group AG held by the respective shareholders listed on page 167 of the Annual Report registered in the UBS share register with 3% or more of total share capital as of 31 December 2022 is as follows:

Shareholder	Number of shares held
Chase Nominees Ltd., London	302,947,749
DTC (Cede & Co.), New York	251,014,771
Nortrust Nominees Ltd., London	152,567,310

According to the mandatory FMIA disclosure notifications filed with UBS Group AG and SIX, the following entities disclosed holding of more than 3% of the total share capital of UBS Group AG, with the following number of shares:

Shareholder	Number of shares held
Norges Bank, Oslo on 25 July 2019	115,997,262
Artisan Partners Limited Partnership, Milwaukee on 18 November 2020	121,591,630
Massachusetts Financial Services Company, on 25 June 2021	116,145,996
Dodge & Cox International Stock Fund, on 28 January 2022	111,816,261
BlackRock Inc., New York, on 29 June 2022	184,188,641

The number of shares of UBS AG held by UBS Group AG as of 31 December 2022 was 3,858,408,466 shares.

B—Related Party Transactions. Annual Report, *Loans granted to GEB members* (238), *Loans granted to BoD members* (239) and Note 30 to each set of Financial Statements (*Related parties*) (355-356 and 476-477).

C—Interests of Experts and Counsel. Not applicable.

Item 8. Financial Information.

A—Consolidated Statements and Other Financial Information. 1, 2, 3, 4, 6: Please see Item 18 of this Form 20-F.
5: Not applicable.
7: Information on material legal and regulatory proceedings is in Note 17 to each set of Financial Statements (*Provisions and contingent liabilities*) (295-301 and 414-421). For developments during the year, please see also the note *Provisions and contingent liabilities* in the Consolidated Financial Statements section in our respective quarterly reports for the First, Second and Third Quarters 2022, filed on Forms 6-K dated April 26, 2022 (UBS Group AG) and April 29, 2022 (UBS AG), July 26, 2022 (UBS Group AG) and July 29, 2022 (UBS AG) and October 25, 2022 (UBS Group AG) and October 28, 2022 (UBS AG), respectively; as well as the *Provisions and contingent liabilities* section in the Fourth Quarter 2022 Report, filed on Form 6-K dated January 31, 2023. The disclosures in each such Quarterly Report speak only as of their respective dates.
8: Annual Report, *Letter to Shareholders* (2-5), *Investors* (37-38), *Dividend distribution* (160), *Distributions to shareholders* (170).

B—Significant Changes. None.

Item 9. The Offer and Listing.

A—Offer and Listing Details.	1, 2, 3, 5, 6, 7: Not applicable. 4: Annual Report, <i>Listing of UBS Group AG shares</i> (162).
B—Plan of Distribution.	Not applicable.
C—Markets.	Cover page (3). Annual Report, <i>Listing of UBS Group AG shares</i> (162)
D—Selling Shareholders.	Not applicable.
E—Dilution.	Not applicable.
F—Expenses of the Issue.	Not applicable.

Item 10. Additional Information.

A—Share Capital.	Not applicable.
B—Memorandum and Articles of Association.	1: Supplement (16). 2: Annual Report, <i>Compensation governance</i> (208-209), <i>Compensation for the Board of Directors</i> (229-231). Supplement (15). 3: Annual Report, <i>Share capital structure</i> (167-171), <i>Shareholders' participation rights</i> (171-172), <i>Elections and terms of office</i> (181). Supplement (13-16). 4: Supplement (14). 5: Annual Report, <i>Shareholders' participation rights</i> (171-172). Supplement (14). 6: Annual Report, <i>Transferability, voting rights and nominee registration</i> (171), <i>Shareholders' participation rights</i> (171-172). Supplement (13). 7: Annual Report, <i>Change of control and defense measures</i> (196). 8: Annual Report, <i>Significant Shareholders</i> (166-167). 9: Supplement (13-16) and Annual Report, <i>Differences from corporate governance standards relevant to US-listed companies</i> (165-166), <i>Compensation governance</i> (208-209), <i>Compensation for the Board of Directors</i> (229-231), <i>Share capital structure</i> (167-171), <i>Shareholders' participation rights</i> (171-172), <i>Elections and terms of office</i> (207), <i>Transferability, voting rights and nominee registration</i> (171), <i>Change of control and defense measures</i> (196), <i>Significant Shareholders</i> (166-167) 10: Supplement (13-16).
C—Material Contracts.	The Terms & Conditions of the several series of capital instruments issued to date, and to be issued pursuant to Deferred Capital Contingent Plans, are exhibits 4.1 through 4.19 to this Form 20-F. These notes are described under <i>Swiss SRB total loss-absorbing capacity framework</i> on page 136-138 of the Annual Report and <i>Our deferred compensation plans</i> on page 222-223 of the Annual Report. The Asset Transfer Agreement by which certain assets and liabilities of UBS AG were transferred to UBS Switzerland AG is filed as Exhibit 4.20, and is described under <i>Joint liability of UBS Switzerland AG</i> on page 482 of the Annual Report.
D—Exchange Controls.	Other than in relation to economic sanctions, there are no restrictions under the Articles of Association of UBS Group AG or UBS AG, nor under Swiss law, as presently in force, that limit the right of non-resident or foreign owners to hold UBS's securities freely. There are currently no Swiss foreign exchange controls or other Swiss laws restricting the import or export of capital by UBS or its subsidiaries, nor restrictions affecting the remittance of dividends, interest or other payments to non-resident holders of UBS securities. The Swiss federal government may impose sanctions on particular countries, regimes, organizations or persons which may create restrictions on exchange of control. A current list, in German, French and Italian, of such sanctions can be found at www.seco-admin.ch . UBS may also be subject to sanctions regulations from other jurisdictions where it operates imposing further restrictions.
E—Taxation.	Supplement (17-19).
F—Dividends and Paying Agents.	Not applicable.
G—Statement by Experts.	Not applicable.
H—Documents on Display.	UBS files periodic reports and other information with the Securities and Exchange Commission. You may read and copy any document that we file with the SEC on the SEC's website, www.sec.gov . Much of this information may also be found on the UBS website at www.ubs.com/investors .
I—Subsidiary Information.	Not applicable.
J—Annual Report to Security Holders	Not applicable

Item 11. Quantitative and Qualitative Disclosures About Market Risk.

(a) Quantitative Information About Market Risk. Annual Report, *Market risk* (111-119).

(b) Qualitative Information About Market Risk. Annual Report, *Market risk* (111-119).

(c) Interim Periods. Not applicable.

Item 12. Description of Securities Other than Equity Securities.

A – Debt Securities Not applicable.

B – Warrants and Rights Not applicable.

C – Other Securities Not applicable.

D – American Depositary Shares Not applicable.

Item 13. Defaults, Dividend Arrearages and Delinquencies. There has been no material default in respect of any indebtedness of UBS or any of its significant subsidiaries or any arrearages of dividends or any other material delinquency not cured within 30 days relating to any preferred stock of UBS Group AG or any of its significant subsidiaries.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds. None.

Item 15. Controls and Procedures.

(a) Disclosure Controls and Procedures Annual Report, *US disclosure requirements* (199), and Exhibit 12 to this Form 20-F.

(b) Management’s Annual Report on Internal Control over Financial Reporting Annual Report, *Management’s report on internal control over financial reporting* (244 and 364).

(c) Attestation Report of the Registered Public Accounting Firm Annual Report, *Report of Independent Registered Public Accounting Firm* (245 and 365).

(d) Changes in Internal Control over Financial Reporting None.

Item 16A. Audit Committee Financial Expert. Annual Report, *Audit Committee* (182) and *Differences from corporate governance standards relevant to US-listed companies* (165-166).

All Audit Committee members have accounting or related financial management expertise and, in compliance with the rules established pursuant to the US Sarbanes- Oxley Act of 2002, at least one member, the Chairperson Jeremy Anderson, qualifies as a financial expert.

Item 16B. Code of Ethics. Annual Report, *Our Code of Conduct and Ethics* (43) UBS’s Code of Conduct and Ethics (“the Code”) is published on our website under <https://www.ubs.com/code>. The UBS Code of Business Conduct does not include a waiver option, and no waiver from any provision of the Code was granted to any employee in 2022.

Item 16C. Principal Accountant Fees and Services. Annual Report, *Auditors* (196-198).
None of the non-audit services so disclosed were approved by the Audit Committee pursuant to paragraph (c) (7)(i)(C) of Rule 2-01 of Regulation S-X.

Item 16D. Exemptions from the Listing Standards for Audit Committees. Not applicable.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers. Annual Report, *Holding of UBS Group AG shares* (161).

Item 16F. Changes in Registrant’s Certifying Accountant. Not applicable.

Item 16G. Corporate Governance.	Annual Report, <i>Differences from corporate governance standards relevant to US-listed companies</i> (165-166), <i>Governance and Nominating Committee</i> (183-184).
Item 16H. Mine Safety Disclosure.	Not applicable.
Item 16I. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	Not applicable.
Item 17. Financial Statements.	Not applicable.
Item 18. Financial Statements.	Annual Report, <i>Financial statements</i> (242-502), <i>Significant regulated subsidiary and sub-group information</i> (521-522) and <i>Additional regulatory information</i> (523-539).
Item 19. Exhibits	Supplement (20-21).

Supplemental information

Item 4. Information on the Company

B – Business Overview

Item 4.B.2. Geographic breakdown of total revenues¹ of UBS Group AG consolidated

The operating regions shown in the table below correspond to the regional management structure of the Group. The allocation of revenues to these regions reflects, and is consistent with, the basis on which the business is managed and its performance is evaluated. These allocations involve assumptions and judgments that management considers to be reasonable, and may be refined to reflect changes in estimates or management structure.

The main principles of the allocation methodology are that client revenues are attributed to the domicile of the client, and trading and portfolio management revenues are attributed to the country where the risk is managed. This revenue attribution is consistent with the mandate of the regional Presidents. Certain revenues, such as those related to Non-core and Legacy Portfolio within Group Functions, are managed at a Group level. These revenues are included in the *Global* column. Financial information for UBS AG consolidated does not differ materially from that for UBS Group AG consolidated.

USD billion

Business Division	FY	Americas	Asia Pacific	EMEA	Switzerland	Global	Total
Global Wealth Management	2022	10.6	2.6	3.9	1.9	0.0	19.0
	2021	10.7	2.9	3.9	1.9	0.0	19.4
	2020	9.1	2.7	3.6	1.7	0.0	17.1
Personal & Corporate Banking	2022	0.0	0.0	0.0	4.3	0.0	4.3
	2021	0.0	0.0	0.0	4.3	0.0	4.3
	2020	0.0	0.0	0.0	3.9	0.0	3.9
Asset Management	2022	0.5	0.4	0.4	0.7	0.8	3.0
	2021	0.6	0.5	0.5	0.8	0.0	2.6
	2020	0.7	0.5	0.5	0.7	0.6	3.0
Investment Bank	2022	2.7	2.7	2.6	0.7	0.0	8.7
	2021	3.2	3.0	2.5	0.8	(0.0)	9.5
	2020	3.5	2.8	2.5	0.8	0.0	9.5
Group Functions	2022	0.0	0.0	0.0	0.0	(0.4)	(0.4)
	2021	0.0	0.0	0.0	0.0	(0.4)	(0.4)
	2020	0.0	0.0	0.0	0.0	(0.5)	(0.5)
Group	2022	13.8	5.6	7.0	7.7	0.5	34.6
	2021	14.5	6.5	7.0	7.8	(0.3)	35.4
	2020	13.2	6.1	6.5	7.1	0.1	33.1

¹ During 2022, UBS changed the presentation of its Income statement. Total operating income was renamed Total revenues and excludes Credit loss expense / (release). This table, including prior-period information, has been updated to reflect the new presentation structure, with the disclosure of Total revenues instead of Total operating income. Refer to Note 1b to the UBS Group AG consolidated financial statements for more information.

Disclosure Pursuant To Section 219 of the Iran Threat Reduction And Syrian Human Rights Act

Section 219 of the US Iran Threat Reduction and Syria Human Rights Act of 2012 (“ITRA”) added Section 13(r) to the US Securities Exchange Act of 1934, as amended (the “Exchange Act”) requiring each SEC reporting issuer to disclose in its annual and, if applicable, quarterly reports whether it or any of its affiliates have knowingly engaged in certain activities, transactions or dealings relating to Iran or with the Government of Iran or certain designated natural persons or entities involved in terrorism or the proliferation of weapons of mass destruction during the period covered by the report. The required disclosure may include reporting of activities not prohibited by US or other law, even if conducted outside the US by non-US affiliates in compliance with local law. Pursuant to Section 13(r) of the Exchange Act, we note the following for the period covered by this annual report:

UBS has a Group Sanctions Policy that prohibits transactions involving sanctioned countries, including Iran, and sanctioned individuals and entities. However, UBS maintains one account involving the Iranian government under the auspices of the United Nations in Geneva after agreeing with the Swiss government that it would do so only under certain conditions. These conditions include that payments involving the account must: (1) be made within Switzerland; (2) be consistent with paying rent, salaries, telephone and other expenses necessary for its operations in Geneva; and (3) not involve any Specially Designated Nationals (SDNs) blocked or otherwise restricted under US or Swiss law. In 2022, the gross revenues for this UN-related account were approximately USD 19,064.61. We do not allocate expenses to specific client accounts in a way that enables us to calculate net profits with respect to any individual account. UBS AG intends to continue maintaining this account pursuant to the conditions it has established with the Swiss Government and consistent with its Group Sanctions Policy.

As previously reported, UBS had certain outstanding legacy trade finance arrangements issued on behalf of Swiss client exporters in favor of their Iranian counterparties. In February 2012 UBS ceased accepting payments on these outstanding export trade finance arrangements and worked with the Swiss government who insured these contracts (Swiss Export Risk Insurance “SERV”). On December 21, 2012, UBS and the SERV entered into certain Transfer and Assignment Agreements under which SERV purchased all of UBS’s remaining receivables under or in connection with Iran-related export finance transactions. Hence, the SERV is the sole beneficiary of said receivables. There was no financial activity involving Iran in connection with these trade finance arrangements in 2022, and no gross revenue or net profit.

In connection with these trade finance arrangements, UBS has maintained one existing account relationship with an Iranian bank. This account was established prior to the US designation of this bank and maintained due to the existing trade finance arrangements. In 2007, following the designation of the bank pursuant to sanctions issued by the US, UN and Switzerland, the account was blocked under Swiss law and remained subject to blocking requirements until January 2016. Client assets as of 31 December 2022 were CHF 3,097.40. There have been no transactions involving this account. Accordingly, there is no gross revenue to report for 2022.

Item 10. Additional Information.

B—Memorandum and Articles of Association.

Please see the Articles of Association of UBS Group AG and of UBS AG (Exhibits 1.1 and 1.2, respectively, to this Form 20-F) and the Organization Regulations of UBS Group AG and UBS AG (Exhibit 1.3 and 1.4, respectively, to this Form 20-F).

Set forth below is a summary of the material provisions of the Articles of Association of UBS Group AG (which we call the “Articles” throughout this document), Organization Regulations of UBS Group AG (which we call the “Organization Regulations” throughout this document) and relevant Swiss laws, in particular the Swiss Code of Obligations, relating to our shares. This description does not purport to be complete and is qualified in its entirety by references to Swiss law, including Swiss company law, and to the Articles and Organization Regulations.

The Articles of Association and Organization Regulations of UBS AG are substantially similar to the Articles and Organization Regulations of UBS Group AG, so the following description applies equally to UBS AG, except where indicated that it refers to only one of the companies.

The principal legislation under which UBS Group AG and UBS AG operate, and under which the ordinary shares of UBS Group AG are issued, is the Swiss Code of Obligations.

The shares are registered shares with a par value of CHF 0.10 per share. The shares are fully paid up, and there is no liability of shareholders to further capital calls by the company. The shares rank *pari passu* in all respects with each other, including voting rights, entitlement to dividends, liquidation proceeds in case of the liquidation of the company, subscription or preemptive rights in the event of a share issue (*Bezugsrechte*) and preemptive rights in the event of the issuance of equity-linked securities (*Vorwegzeichnungsrechte*).

Each share carries one vote at our shareholders’ meetings. Voting rights may be exercised only after a shareholder has been recorded in our share register as a shareholder with voting rights. Registration with voting rights is subject to certain restrictions. See “Share Register and Transfer of Shares” below.

The Articles provide that we may elect not to print and deliver certificates in respect of registered shares. Shareholders may, however, following registration in the share register, request at any time that we issue a written statement in respect of their shares; however, the shareholder has no entitlement to the printing and delivery of share certificates.

Shares and Shareholders

Share Register and Transfer of Shares

UBS Group AG’s share register is kept by UBS Shareholder Services, P.O. Box, CH-8098 Zurich, Switzerland. Shareholder Services is responsible for the registration of the global shares. It is split into two parts – a Swiss register, which is maintained by UBS Group, acting as Swiss share registrar, and a US register, which is maintained by Computershare Trust Company NA, c/o Computershare Investor Services, P.O. Box 505000, Louisville, KY 40233-5000, United States (US), as US transfer agent.

Swiss law and the Articles of Association of UBS Group AG and UBS AG require UBS to keep a share register in which the names, addresses and nationality (for legal persons, the registered office) of the owners (and beneficial owners) of registered shares are recorded. The main function of the share register is to record shareholders entitled to vote and participate in general meetings, or to assert or exercise other rights related to voting rights.

The transfer of shares which exist in the form of intermediary-held securities is effected by entries in securities accounts in accordance with applicable law. The transfer of uncertificated securities is effected by way of a written declaration of assignment and requires notice to the issuer.

In order to register shares in the share register, a purchaser must file a share registration form with the share register. Failing such registration, the purchaser may not vote at or participate in shareholders’ meetings, but will be entitled to dividends, preemptive and priority subscription rights, and liquidation proceeds.

Swiss law distinguishes between registration with and without voting rights. Shareholders must be registered in the share register as shareholders with voting rights in order to vote and participate in general meetings or to assert or exercise other rights related to voting rights. A purchaser of shares will be recorded in our share register with voting rights upon disclosure of its name and nationality (and for legal persons, the registered office). However, we may decline a registration with voting rights if the shareholder does not declare that it has acquired the shares in its own name and for its own account. If the shareholder refuses to make such declaration, it will be registered as a shareholder without voting rights.

General Meeting

A shareholders' meeting is convened by the Board of Directors (BoD) upon notification of the shareholders at least 20 days prior to such meeting. An invitation will be sent to all registered shareholders. The Articles do not require a minimum number of shareholders to be present in order to hold a shareholders' meeting.

Unless otherwise provided by law or the Articles (as indicated in this section), resolutions require the approval of a majority of the votes represented, excluding blank and invalid ballots, at a shareholders' meeting. Under Swiss corporate law, a resolution passed by at least two-thirds of votes represented and a majority of the nominal value of the shares represented is required in order to approve:

- A change in our stated purpose in the Articles;
- The consolidation of shares, unless the consent of all the shareholders concerned is required;
- The restriction or cancellation of the preemptive right;
- The conversion of participation certificates into shares;
- The introduction of shares with preferential voting rights;
- Any restriction on the transferability of registered shares;
- Any change in the currency of the share capital;
- The introduction of a casting vote for the person chairing the shareholders' meeting;
- A provision of the articles of association on holding the shareholders' meeting abroad;
- The delisting of the equity securities of the corporation;
- Authorizing contingent capital, a capital band or the creation of reserve capital in accordance with Swiss banking law;
- A capital increase from equity capital, in return for contributions in kind or by offset with a claim, and the granting of special privileges;
- A change of domicile of the corporation;
- The introduction of an arbitration clause in the articles of association;
- Dispensing with the designation of an independent voting representative for conducting a virtual general meeting in the case of corporations whose shares are not listed on a stock exchange (e.g., UBS AG); or
- Dissolution of the corporation.

Under the Articles, a resolution passed at a shareholders' meeting with a supermajority of at least two-thirds of the votes represented at such meeting is required to:

- Change the limits on BoD size in the Articles;
- Remove one-fourth or more of the members of the BoD; or
- Delete or modify these supermajority requirements.

At shareholders' meetings, a shareholder can be represented by a legal representative or under a written power of attorney by another shareholder eligible to vote or, under a written or electronic power of attorney, by the independent proxy. Votes are taken electronically, by written ballot or by a show of hands. Shareholders representing at least 3% of the votes represented may always request that a vote or election take place electronically or by a written ballot.

Net Profits and Dividends

Swiss law requires that at least 5% of the annual net profits of a corporation must be retained as statutory retained earnings until these equal, together with the statutory capital reserve, 50% of the corporation's paid-up share capital. Holding companies, such as UBS Group AG, must increase the statutory retained earnings until these equal, together with the statutory capital reserve, 20% of the corporation's paid-up share capital.

Under Swiss law, dividends may be paid out only if the corporation has sufficient distributable profits from previous business years or if the reserves of the corporation are sufficient to allow distribution of a dividend. In either event, dividends may be paid out only after approval by the shareholders' meeting. The BoD may propose to the shareholders that a dividend be paid out. The auditors must confirm that the dividend proposal of the BoD conforms with statutory law.

Dividends are usually due and payable after the shareholders' resolution relating to the allocation of profits has been passed. Under Swiss law, the statute of limitations in respect of dividend payments is five years.

Preemptive Rights

Under Swiss law, any share issue, whether for cash or non-cash consideration or for no consideration, is subject to the prior approval of the shareholders' meeting. Shareholders of a Swiss corporation have certain preemptive rights to subscribe for new issues of shares in proportion to the nominal amount of shares held. The Articles or a resolution adopted at a shareholders' meeting with a supermajority of at least two-thirds of the votes represented and a majority of the nominal value of the shares represented at the meeting may, however, limit or suspend preemptive rights in certain limited circumstances.

Notices

Notices to shareholders are made by publication in the Swiss Official Gazette of Commerce. The BoD may designate further means of communication for publishing notices to shareholders.

Mandatory Tender Offer

Under the applicable provisions of the Swiss Financial Market Infrastructure Act, anyone who directly or indirectly or acting in concert with third parties acquires more than 33 1/3% of the voting rights of a Swiss-listed company will have to submit a takeover bid to all remaining shareholders. A waiver from the mandatory bid rule may be granted by our supervisory authority. If no waiver is granted, the mandatory takeover bid must be made pursuant to the procedural rules set forth in the Swiss Financial Market Infrastructure Act and implementing ordinances.

Board of Directors

Borrowing Power

Neither Swiss law nor the Articles restrict in any way our power to borrow and raise funds, provided that any such borrowing is entered into on arms' length terms.

Swiss law requires that the Articles determine the amount of loans that UBS Group AG, as a listed company, may grant to members of its BoD. The Articles restrict UBS Group AG's ability to grant loans to BoD members as follows: First, loans to the independent members of the BoD shall be made in accordance with the customary business and market conditions. Second, loans to the non-independent members of the BoD shall be made in the ordinary course of business on substantially the same terms as those granted to UBS employees. Third, the total amount of such loans shall not exceed CHF 20 million per member.

Conflicts of Interests

Swiss law requires directors and members of senior management to inform the BoD immediately and comprehensively of any conflicts of interest affecting them. The BoD then has to take the measures required to safeguard the interests of the corporation. Directors and officers are personally liable to the corporation for any breach of these provisions. In addition, Swiss law contains a provision under which payments made to a shareholder or a director or any person associated therewith, other than at arm's length, must be repaid to us if the shareholder or director was acting in bad faith.

In addition, our Organization Regulations provide that the member of the BoD or senior management with a conflict of interest shall participate in discussions and a double vote (meaning a vote with and a vote without the conflicted individual) shall take place. A binding decision on the matter requires the same outcome in both votes. This is subject to exceptional circumstances in which the best interests of UBS dictate that the member of the BoD or senior management with a conflict of interest shall not participate in the discussions and decision-making involving the interest at stake.

Retirement of Board members

There is no age-limit requirement for retirement of the members of the BoD. The term of office for each Board member is one year, and no Board member may serve for more than 10 consecutive terms of office. In exceptional circumstances the Board can extend this limit.

Executive sessions

UBS AG's Organization Regulations require one-third of the members of the Board of Directors of UBS AG to be independent. While neither Swiss law applicable to UBS AG nor the Organization Regulations require regularly scheduled meetings of UBS AG's independent directors, the Organization Regulations of UBS Group AG require independent members of the Board of Directors of UBS Group AG to meet, without the participation of the Chairman, at least twice a year. All members of UBS Group AG's Board of Directors are also members of UBS AG's Board of Directors and all meetings of UBS Group AG's Board of Directors are held as combined meetings with the UBS AG's Board of Directors. As a result, the practice currently in place at UBS AG is that the independent members regularly meet in sessions of independent members only. In addition to these joint meetings, standalone meetings of UBS AG's Board of Directors are held regularly to discuss and agree on finance, risk, compliance, operational risk, regulatory and other topics related to UBS AG.

The Company

Repurchase of Shares

Swiss law limits a corporation's ability to hold or repurchase its own shares. We and our Swiss subsidiaries may only repurchase shares if we have sufficient freely disposable equity capital available at its acquisition value to pay the purchase price and if the aggregate nominal value of the shares does not exceed 10% of our nominal share capital. Repurchases for cancellation purposes approved by the shareholders' meeting are exempted from the 10% threshold. Furthermore, such own shares must be disclosed as negative items in our shareholders' equity. Such shares held by us or our Swiss subsidiaries do not carry any rights to vote at shareholders' meetings.

Sinking fund provisions

There are no provisions in the Swiss law or in the Articles requiring the company to put resources aside for the exclusive purpose of redeeming bonds or repurchasing shares.

Registration and Business Purpose

UBS Group AG was incorporated and registered as a corporation limited by shares (*Aktiengesellschaft*) under the laws of Switzerland. UBS Group AG was entered into the commercial register of Canton Zurich on 10 June 2014 under the registration number CHE-395.345.924 and has its registered domicile in Zurich, Switzerland. The business purpose of UBS Group AG, as set forth in article 2 of its Articles, is the acquisition, holding, management and sale of direct and indirect participations in enterprises of any kind, in particular in the area of banking, financial, advisory, trading and service activities in Switzerland and abroad. UBS Group may establish enterprises of any kind in Switzerland and abroad, hold equity interests in these companies, and conduct their management. UBS Group is authorized to acquire, mortgage and sell real estate and building rights in Switzerland and abroad. UBS Group may provide loans, guarantees and other types of financing and security for group companies and borrow and invest capital on the money and capital markets.

UBS AG was incorporated and registered as a corporation limited by shares (*Aktiengesellschaft*) under the laws of Switzerland. It is entered into the commercial registers of Canton Zurich and Canton Basel-City under the registration number CHE-101.329.561 and has registered domiciles in Zurich and Basel, Switzerland. The business purpose of UBS AG, as set forth in article 2 of its Articles of Association, is the operation of a bank, with a scope of operations extending to all types of banking, financial, advisory, trading and service activities in Switzerland and abroad. UBS AG is a wholly owned subsidiary of UBS Group AG.

Duration and Liquidation

UBS Group AG and UBS AG have unlimited duration.

Under Swiss law, we may be dissolved at any time by a shareholders' resolution which must be passed by a supermajority of at least two-thirds of the votes represented and a majority of the nominal value of the shares represented at the meeting. Dissolution by law or court order is possible, for example, if we become bankrupt.

Under Swiss law, any surplus arising out of a liquidation (after the settlement of all claims of all creditors) is distributed to shareholders in proportion to the paid-up nominal value of shares held.

Other

Ernst & Young Ltd, Aeschengraben 9, CH-4051 Basel, Switzerland, PCAOB number 1460, have been appointed as statutory auditors and as auditors of the consolidated accounts of both UBS Group AG and UBS AG. The auditors are subject to election by the shareholders at the ordinary general meeting on an annual basis.

E—Taxation.

This section outlines the material Swiss tax and US federal income tax consequences of the ownership of UBS Group AG’s ordinary shares (defined as “UBS ordinary shares “ in this section) by a US holder (as defined below) who holds UBS ordinary shares as capital assets. This discussion addresses only US federal income taxation and Swiss income and capital taxation and does not discuss all of the tax consequences that may be relevant to holders in light of their individual circumstances, including other foreign tax consequences, state or local tax consequences, estate and gift tax consequences, and tax consequences arising under the Medicare contribution tax on net investment income or the alternative minimum tax. It is designed to explain the major interactions between Swiss and US taxation for US persons who hold UBS ordinary shares.

The discussion does not address the tax consequences to persons who hold UBS ordinary shares in particular circumstances, such as tax-exempt entities, banks, financial institutions, life insurance companies, broker-dealers, traders in securities that elect to use a mark-to-market method of accounting for securities holdings, holders that actually or constructively own 10% or more of the total combined voting power of the voting stock of UBS Group AG or of the total value of stock of UBS Group AG, holders that hold UBS ordinary shares as part of a straddle or a hedging or conversion transaction, holders that purchase or sell UBS ordinary shares as part of a wash sale for tax purposes or holders whose functional currency for US tax purposes is not the US dollar. This discussion also does not apply to holders who acquired their UBS ordinary shares through a tax-qualified retirement plan, nor generally to unvested UBS ordinary shares held under deferred compensation arrangements.

If a partnership (or other entity treated as a partnership) holds UBS ordinary shares, the US federal income tax treatment of a partner will generally depend on the status of the partner and the tax treatment of the partnership. A partner in a partnership holding the UBS ordinary shares should consult its tax advisor with regard to the US federal income tax treatment of an investment in the ordinary shares.

The discussion is based on the tax laws of Switzerland and the United States, including the US Internal Revenue Code of 1986, as amended, its legislative history, existing and proposed regulations under the Internal Revenue Code, published rulings and court decisions, as in effect on the date of this document, as well as the Convention between the United States of America and the Swiss Confederation for the Avoidance of Double Taxation with Respect to Taxes on Income, which we call the “Treaty,” all of which may be subject to change or change in interpretation, possibly with retroactive effect.

For purposes of this discussion, a “US holder” is any beneficial owner of UBS ordinary shares that is for US federal income tax purposes:

- A citizen or resident of the United States;
- A domestic corporation or other entity taxable as a corporation;
- An estate, the income of which is subject to US federal income tax without regard to its source; or
- A trust, if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more US persons have the authority to control all substantial decisions of the trust.

Holders of UBS ordinary shares are urged to consult their tax advisors regarding the US federal, state and local and the Swiss and other tax consequences of owning and disposing of these shares in their particular circumstances.

(a) Ownership of UBS Ordinary Shares - Swiss Taxation

Dividends and Distributions

Dividends paid by UBS Group AG to a holder of UBS ordinary shares (including dividends on liquidation proceeds and stock dividends) are in principle subject to a Swiss federal withholding tax at a rate of 35%.

Under the Capital Contribution Principle, the repayment of capital contributions, including share premiums made by the shareholders after December 31, 1996 is in principle no longer subject to Swiss withholding tax if certain requirements regarding the booking of these capital contributions are met.

Swiss companies listed on a Swiss stock exchange such as UBS Group AG can repay reserves from capital contributions to their shareholders without deduction of Swiss withholding tax only if they distribute at least the same amount of taxable dividends. For this reason UBS Group AG pays half of the dividend from capital contribution reserves and half of the dividend from taxable dividends which is subject to 35% Swiss withholding tax.

A US holder resident in the US that qualifies for Treaty benefits may apply for a refund of the withholding tax withheld in excess of the 15% Treaty rate (or for a full refund in case of qualifying retirement arrangements). The claim for refund must be filed with the Swiss Federal Tax Administration, Eigerstrasse 65, CH-3003 Berne, Switzerland no later than December 31 of the third year following the end of the calendar year in which the income subject to withholding was due. The form used for obtaining a refund is one of the Swiss Tax Forms 82 (82 C for US companies; 82 E for other US entities; 82 I for individuals; 82 R for regulated investment companies), which may be obtained from the Swiss Federal Tax Administration at the address above or downloaded from the web page of the Swiss Federal tax Administration. The form must be filled out in triplicate with each copy duly completed and signed before a notary public in the United States. The form must be accompanied by evidence of the deduction of withholding tax withheld at the source.

A US holder resident outside the US may be eligible for a withholding tax reclaim. If the US holder is resident in Switzerland, a full reclaim based on the Swiss withholding tax Act is possible provided all necessary conditions are met. A US holder resident neither in the US nor in Switzerland may be eligible for a partial reclaim provided that a Treaty between Switzerland and the country of residence is applicable and that all necessary conditions are met.

Transfers of UBS Ordinary Shares

The purchase or sale of UBS ordinary shares, whether by Swiss resident or non-resident holders (including US holders), may be subject to a Swiss securities transfer stamp duty of up to 0.15% calculated on the purchase price or sale proceeds if it occurs through or with a bank or other securities dealer as defined in the Swiss Federal Stamp Tax Act in Switzerland or the Principality of Liechtenstein. In addition to the stamp duty, the sale of UBS ordinary shares by or through a member of a recognized stock exchange may be subject to a stock exchange levy.

Capital gains realized by a US holder upon the sale of UBS ordinary shares are not subject to Swiss income or gains taxes, unless such US holder holds such shares as business assets of a Swiss business operation qualifying as a permanent establishment. In the latter case, gains are taxed at ordinary Swiss individual or corporate income tax rates, as the case may be, and losses are deductible for purposes of Swiss income taxes. Furthermore, a US holder who is an individual resident in Switzerland and holds such shares as business assets (as he qualifies as a professional trader of securities as per Swiss tax law) may be liable to Swiss income taxes on gains.

(b) Ownership of UBS Ordinary Shares - US Federal Income Taxation

The tax treatment of the UBS ordinary shares will depend in part on whether or not UBS Group AG is classified as a passive foreign investment company, or PFIC, for US federal income tax purposes. Except as discussed below under “—Passive Foreign Investment Company (PFIC) Rules”, this discussion assumes that UBS Group AG is not classified as a PFIC for United States federal income tax purposes.

Dividends and Distributions

A US holder will include in gross income and treat as a dividend the gross amount of any distribution paid, before reduction for Swiss withholding taxes, by UBS Group AG out of its current or accumulated earnings and profits (as determined for US federal income tax purposes), other than certain pro-rata distributions of UBS ordinary shares, when the distribution is actually or constructively received by the US holder. Distributions in excess of current and accumulated earnings and profits (as determined for US federal income tax purposes) will be treated as a return of capital to the extent of the US holder's basis in its UBS ordinary shares and thereafter as capital gain. However, UBS Group AG does not expect to calculate earnings and profits in accordance with US federal income tax principles. Accordingly, a US holder should expect to generally treat distributions we make on UBS ordinary shares as dividends.

Dividends paid to a noncorporate US holder that constitute qualified dividend income will be taxable to the holder at preferential rates, provided that the holder has a holding period in the shares of more than 60 days during the 121-day period beginning 60 days before the ex-dividend date and meets other holding period requirements. Dividends paid by UBS Group AG with respect to the ordinary shares will generally be qualified as dividend income provided that, in the year that the US holder receives the dividend, the UBS ordinary shares are readily tradable on an established securities market in the United States. The UBS ordinary shares are listed on the New York Stock Exchange, and UBS Group AG therefore expects that dividends will be qualified dividend income.

For US federal income tax purposes, a dividend will include a distribution characterized under Swiss law as a repayment of capital contributions if the distribution is made out of current or accumulated earnings and profits, as described above.

Dividends will generally be income from sources outside the United States for foreign tax credit limitation purposes, and will generally be “passive” income for purposes of computing the foreign tax credit allowable to the holder. However, if (a) we are 50% or more owned, by vote or value, by US persons and (b) at least 10% of our earnings and profits are attributable to sources within the US, then for foreign tax credit purposes, a portion of our dividends would be treated as derived from sources within the US. With respect to any dividend paid for any taxable year, the US source ratio of our dividends for foreign tax credit purposes would be equal to the portion of our earnings and profits from sources within the United States for such taxable year, divided by the total amount of our earnings and profits for such taxable year. Special rules apply in determining the foreign tax credit limitation with respect to dividends that are subject to preferential rates. The dividend will not be eligible for the dividends-received deduction generally allowed to US corporations in respect of dividends received from other US corporations.

In the case of dividends that are paid in Swiss francs, the amount of the dividend distribution included in income of a US holder will be the US dollar value of the Swiss franc payments made, determined at the spot Swiss franc/US dollar rate on the date such dividend distribution is includible in the income of the US holder, regardless of whether the payment is in fact converted into US dollars. Generally, any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend payment is included in income to the date such dividend payment is converted into US dollars will be treated as ordinary income or loss and will not be eligible for the special tax rate applicable to qualified dividend income. Such gain or loss will generally be income or loss from sources within the United States for foreign tax credit limitation purposes.

Subject to US foreign tax credit limitations, the nonrefundable Swiss tax withheld and paid over to Switzerland will be creditable or deductible against the US holder’s US federal income tax liability. To the extent a reduction or refund of the tax withheld is available to a US holder under the laws of Switzerland or under the Treaty, the amount of tax withheld that is refundable will not be eligible for credit against the US holder’s US federal income tax liability, whether or not the refund is actually obtained. See “(a) Ownership of UBS Ordinary Shares – Swiss Taxation” above, for the procedures for obtaining a tax refund.

Transfers of UBS Ordinary Shares

A US holder that sells or otherwise disposes of UBS ordinary shares generally will recognize capital gain or loss for US federal income tax purposes equal to the difference between the US dollar value of the amount realized and its tax basis, determined in US dollars, in such UBS ordinary shares. Capital gain of a non-corporate US holder is generally taxed at preferential rates if the UBS ordinary shares were held for more than one year. The gain or loss will generally be income or loss from sources within the United States for foreign tax credit limitation purposes. A US holder will not be allowed a foreign tax credit in respect of any stamp duty or stock exchange levy that is imposed upon a transfer of UBS ordinary shares.

Passive Foreign Investment Company (PFIC) Rules

UBS Group AG believes that UBS ordinary shares should not currently be treated as stock of a PFIC for US federal income tax purposes, and does not expect to become a PFIC in the foreseeable future. However, this conclusion is a factual determination made annually and thus may be subject to change. It is therefore possible that UBS Group AG could become a PFIC in a future taxable year. In general, UBS Group AG will be a PFIC with respect to a US holder if, for any taxable year in which the US holder held UBS ordinary shares, either (i) at least 75% of the gross income of UBS Group AG for the taxable year is passive income or (ii) at least 50% of the value, determined on the basis of a quarterly average, of UBS’s assets is attributable to assets that produce or are held for the production of passive income (including cash). If UBS Group AG were to be treated as a PFIC, gain realized on the sale or other disposition of UBS ordinary shares would in general not be treated as capital gain. Instead, unless a US holder elects to be taxed annually on a mark-to-market basis with respect to its UBS ordinary shares, such gain and certain “excess distributions” would be treated as having been realized ratably over the holder’s holding period for the shares and generally would be taxed at the highest tax rate in effect for each such year to which the gain was allocated, together with an interest charge in respect of the tax attributable to each such year. With certain exceptions, a holder’s UBS ordinary shares will be treated as stock in a PFIC if UBS Group AG was a PFIC at any time during the holder’s holding period in the UBS ordinary shares. In addition, dividends received from UBS Group AG would not be eligible for the preferential tax rate applicable to qualified dividend income if UBS Group AG were to be treated as a PFIC either in the taxable year of the distribution or the preceding taxable year, but would instead be taxable at rates applicable to ordinary income.

Item 19. Exhibits.

Exhibit number	Description
1.1	Articles of Association of UBS Group AG dated 6 April 2022.
1.2	Articles of Association of UBS AG dated 26 April 2018 . (Incorporated by reference to Exhibit 1.2 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2019)
1.3	Organization Regulations of UBS Group AG dated 14 February 2022 . (Incorporated by reference to Exhibit 1.3 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2021)
1.4	Organization Regulations of UBS AG dated 14 February 2022 . (Incorporated by reference to Exhibit 1.4 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2021)
2(b)	Instruments defining the rights of the holders of long-term debt issued by UBS Group AG and its subsidiaries. We agree to furnish to the SEC upon request, copies of the instruments, including indentures, defining the rights of the holders of our long-term debt and of our subsidiaries' long-term debt.
2(d)	Description of securities registered under Section 12 or the Securities Exchange Act of 1934
4.1	Terms and Conditions of Tier 2 Subordinated Notes of UBS AG due 2024, issued 15 May 2014 . (Incorporated by reference to Exhibit 4.3 to UBS AG's Annual Report on Form 20-F for the fiscal year ended December 31, 2014)
4.2	Terms and Conditions of USD 1.25 billion 7% Tier 1 Subordinated Notes issued by UBS Group AG on 19 February 2015 . (Incorporated by reference to Exhibit 4.4 to UBS AG's Annual Report on Form 20-F for the fiscal year ended December 31, 2014)
4.3	Terms and Conditions of EUR 1 billion 5.75% Tier 1 Subordinated Notes issued by UBS Group AG on 19 February 2015 . (Incorporated by reference to Exhibit 4.6 to UBS AG's Annual Report on Form 20-F for the fiscal year ended December 31, 2014)
4.4	Terms and Conditions of USD 1.575 billion Tier 1 Subordinated Notes issued by UBS Group AG on 7 August 2015 . (Incorporated by reference to Exhibit 4.8 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2015)
4.5	Terms and Conditions of SGD 700 million 5.875% Tier 1 Subordinated Notes issued on 28 November 2018 by UBS Group AG (originally issued by UBS Group Funding (Switzerland) AG and guaranteed by UBS Group AG, migrated to UBS Group AG as issuer on 11 October 2019) . (Incorporated by reference to Exhibit 4.17 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2018)
4.6	Terms and Conditions of USD 2.5 billion 7.00% Tier 1 Subordinated Notes issued on 31 January 2019 by UBS Group AG (originally issued by UBS Group Funding (Switzerland) AG and guaranteed by UBS Group AG, migrated to UBS Group AG as issuer on 11 October 2019) . (Incorporated by reference to Exhibit 4.18 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2018)
4.7	Terms and Conditions of additional Tier 1 capital instruments issued pursuant to the Deferred Contingent Capital Plan 2018/19 . (Incorporated by reference to Exhibit 4.19 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2018)
4.8	Terms and Conditions of AUD 700 million 4.375% Tier 1 Subordinated Notes issued on 27 August 2019 by UBS Group AG . (Incorporated by reference to Exhibit 4.17 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2019)
4.9	Terms and Conditions of SGD 750 million 4.85% Tier 1 Subordinated Notes issued on 04 September 2019 by UBS Group AG . (Incorporated by reference to Exhibit 4.18 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2019)
4.10	Terms and Conditions of CHF 275 million 3.00% Tier 1 Subordinated Notes issued on 13 November 2019 by UBS Group AG . (Incorporated by reference to Exhibit 4.19 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2019)
4.11	Terms and Conditions of additional Tier 1 capital instruments issued pursuant to the Deferred Contingent Capital Plan 2019/20 . (Incorporated by reference to Exhibit 4.19 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2020)

- 4.12 [Terms and Conditions of USD 750 million 5.125% Tier 1 Subordinated Notes issued on 29 July 2020 by UBS Group AG.](#) (Incorporated by reference to Exhibit 4.20 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2020)
- 4.13 [Terms and Conditions of USD 1.5 billion 4.375% Tier 1 Subordinated Notes issued on 10 February 2021 by UBS Group AG.](#) (Incorporated by reference to Exhibit 4.21 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2020)
- 4.14 [Terms and Conditions of additional Tier 1 capital instruments issued pursuant to the Deferred Contingent Capital Plan 2020/21.](#) (Incorporated by reference to Exhibit 4.22 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2020)
- 4.15 [Terms and Conditions of USD 750 million 3.875% Tier 1 Subordinated Notes issued on 02 June 2021 by UBS Group AG.](#) (Incorporated by reference to Exhibit 4.18 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2021)
- 4.16 [Terms and Conditions of USD 1.5 billion 4.875% Tier 1 Subordinated Notes issued on 12 January 2022 by UBS Group AG.](#) (Incorporated by reference to Exhibit 4.19 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2021)
- 4.17 [Terms and Conditions of CHF 265 million 3.375% Tier 1 Subordinated Notes issued on 16 February 2022 by UBS Group AG.](#) (Incorporated by reference to Exhibit 4.20 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2021)
- 4.18 [Terms and Conditions of additional Tier 1 capital instruments issued pursuant to the Deferred Contingent Capital Plan 2021/22.](#) (Incorporated by reference to Exhibit 4.21 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2021)
- 4.19 [Terms and Conditions of additional Tier 1 capital instruments issued pursuant to the Deferred Contingent Capital Plan 2022/23.](#)
- 4.20 [Asset Transfer Agreement between UBS AG and UBS Switzerland AG dated 12 June 2015.](#) (Incorporated by reference to Form 6-K of UBS AG filed on June 17, 2015)
- 8 Significant Subsidiaries of UBS Group AG.
Please see Note 28 to each set of Financial Statements (*Interests in subsidiaries and other entities*), on pages 350- 354 and 471-475 of the Annual Report.
- 12 [The certifications required by Rule 13\(a\)-14\(a\) \(17 CFR 240.13a-14\(a\)\).](#)
- 13 [The certifications required by Rule 13\(a\)-14\(b\) \(17 CFR 240.13a-14\(b\)\) and Section 1350 of Chapter 63 of Title 18 of the U.S. Code \(18 U.S.C. 1350\).](#)
- 15.1 [Consent of Ernst & Young Ltd. with respect to UBS Group AG.](#)
- 15.2 [Consent of Ernst & Young Ltd. with respect to UBS AG.](#)
- 101 Interactive Data Files (sections of the Annual Report formatted in inline XBRL (Extensible Business Reporting Language)). Furnished electronically herewith.

SIGNATURES

The registrants hereby certify that they meet all of the requirements for filing on Form 20-F and that they have duly caused the undersigned to sign this annual report on their behalf.

UBS Group AG

/s/ Ralph Hamers

Name: Ralph Hamers

Title: Group Chief Executive Officer

/s/ Sarah Youngwood

Name: Sarah Youngwood

Title: Group Chief Financial Officer

/s/ Christopher Castello

Name: Christopher Castello

Title: Group Controller and Chief Accounting Officer

UBS AG

/s/ Ralph Hamers

Name: Ralph Hamers

Title: President of the Executive Board

/s/ Sarah Youngwood

Name: Sarah Youngwood

Title: Chief Financial Officer

/s/ Christopher Castello

Name: Christopher Castello

Title: Controller and Chief Accounting Officer

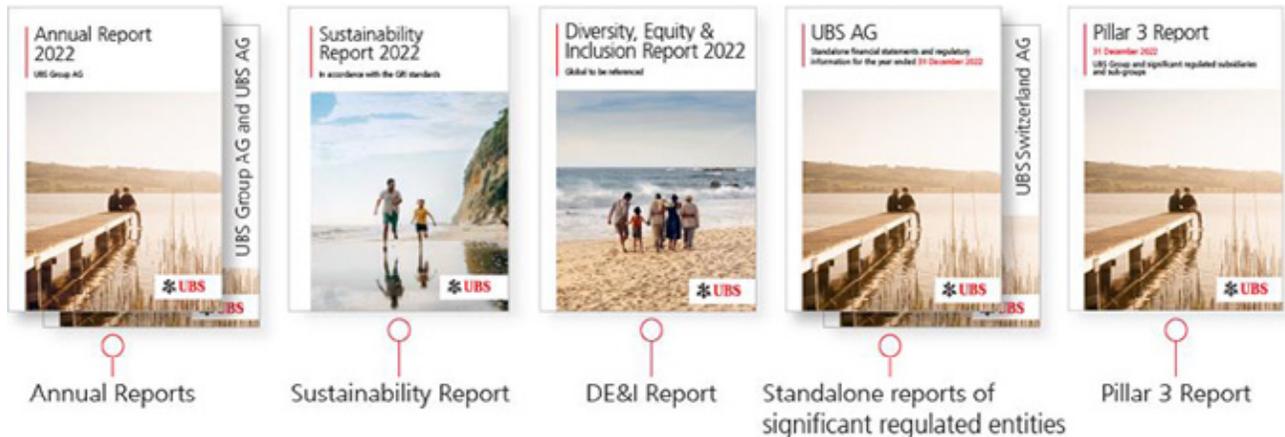
Date: March 6, 2023



Our external reporting approach

The scope and content of our external reports are determined by Swiss legal and regulatory requirements, accounting standards, relevant stock and debt listing rules, including regulations promulgated by the Swiss Financial Market Supervisory Authority (FINMA), the SIX Swiss Exchange, the US Securities and Exchange Commission (the SEC) and other regulatory requirements, as well as by our financial reporting policies.

At the center of our external reporting approach is the annual report of UBS Group AG, which consists of disclosures for UBS Group AG and its consolidated subsidiaries. We also provide a combined annual report for UBS Group AG and UBS AG consolidated, which additionally includes the consolidated financial statements of UBS AG, as well as supplemental disclosures required under SEC regulations, and is the basis for our SEC Form 20-F filing.



Annual Reports

The 2022 Annual Reports (the UBS Group AG Annual Report 2022 and the combined UBS Group AG and UBS AG Annual Report 2022) include the consolidated financial statements of UBS Group AG and UBS AG, respectively, and provide comprehensive information about our firm, including our strategy, businesses, financial and operating performance, and other key information. The reports are presented in US dollars. The UBS Group AG Annual Report 2022 is partly translated into German, with the German translation available as of 10 March 2023 under “Annual reporting” at ubs.com/investors.

The consolidated financial statements of UBS Group AG and UBS AG have been prepared in accordance with International Financial Reporting Standards (IFRS). The sections within “Risk, capital, liquidity and funding, and balance sheet” include certain audited financial information, which forms part of the consolidated financial statements. The Annual Reports also include the statutory financial statements of UBS Group AG, which are the basis for our appropriation of profit and the proposed distribution of dividends, subject to shareholder approval at the Annual General Meeting.

Sustainability Report

The Sustainability Report, which will be available from 6 March 2023, provides disclosures on environmental, social and governance topics for UBS Group. Selected information on environmental, social and governance is also included in our Annual Report.

Standalone reports of significant regulated entities

We publish separate standalone reports for UBS AG and UBS Switzerland AG. Selected financial and regulatory key figures for these entities, as well as for UBS Europe SE and UBS Americas Holding LLC, are also included in our annual reports. The UBS Europe SE 2022 financial statements and complementary disclosures will be published on our website in the first half of 2023.

Pillar 3 Report

The Pillar 3 Report provides detailed quantitative and qualitative information about risk, capital, leverage and liquidity and funding for UBS Group and prudential key figures and regulatory information for UBS AG standalone, UBS Switzerland AG standalone, UBS Europe SE consolidated and UBS Americas Holding LLC consolidated.

Diversity, Equity and Inclusion Report

The first global Diversity, Equity and Inclusion (DE&I) Report, which will be available in the second quarter of 2023, details our DE&I priority areas of focus, our strategic goals and our approach to achieving them at UBS.

A firm driven by purpose

We have to constantly adapt, innovate, create and simplify to bring the best to our clients. But one thing never changes. Our purpose. Our purpose guides us, challenges us, excites us. It tells our clients, investors and communities who we are and what we stand for.

Reimagining

It is about proactively finding ways to fundamentally change how the world looks at finance and investing.

The power of investing

We know finance has a powerful influence on the world. We believe it is something we can leverage as a positive force as stewards of capital for our clients and, together with them, for society and for our planet.

Reimagining the power of investing.
Connecting people for a better world.

Connecting people

It is about more than just us. It is about convening a global ecosystem that connects people and businesses to ideas, partners and opportunities, so they can achieve more together.

For a better world

It is about contributing, in both the short term and long term, to a more prosperous economy, a healthier environment and a fairer society.

What our purpose means for our stakeholders



For clients, both existing and potential, it means that our focus is clear. They know who we are. They know what we stand for. They know what is important to us beyond traditional financing. And they know our promise: to deliver products and services that are personalized, relevant, on-time and seamless.

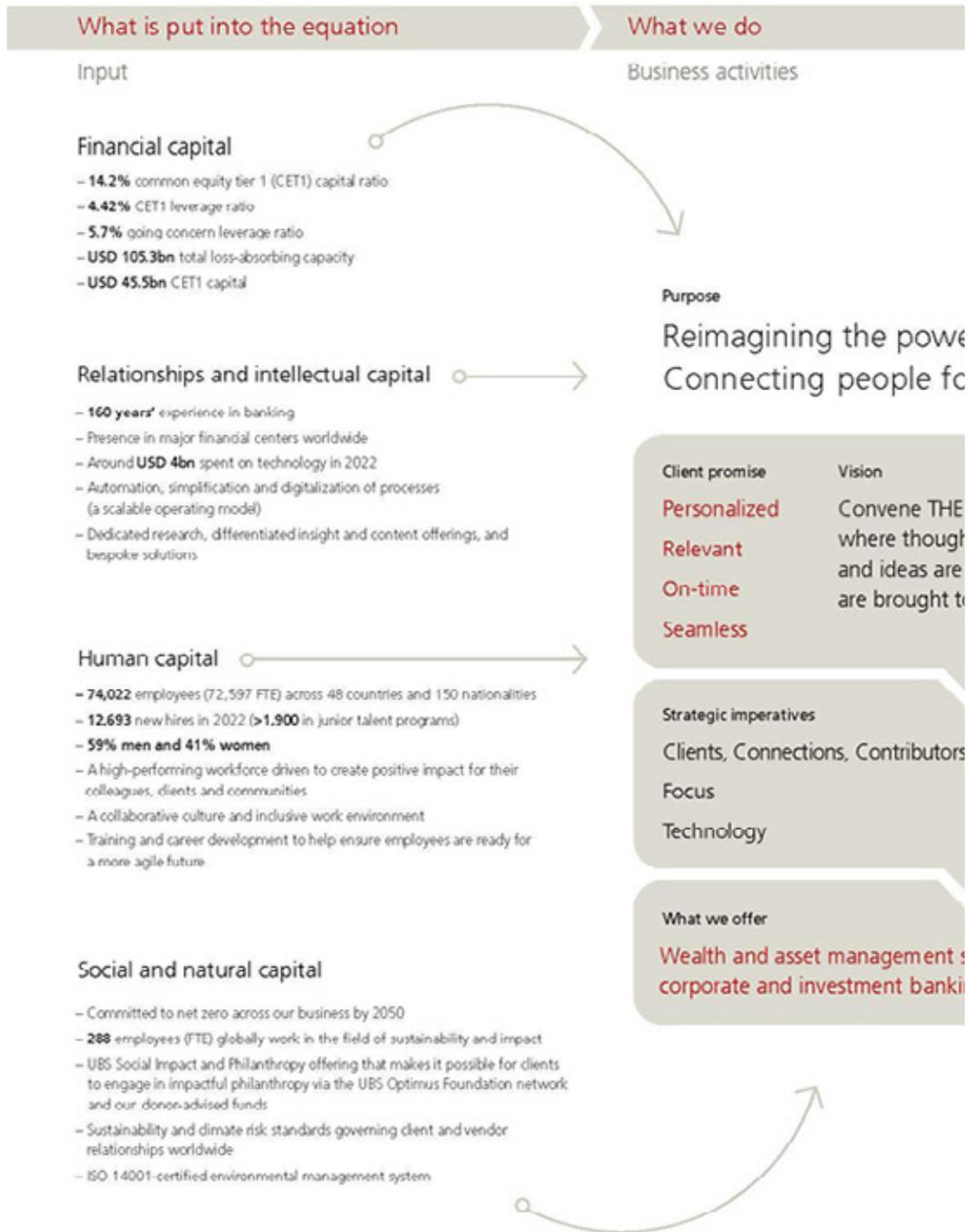
For investors, it means there is clarity behind our decisions. All initiatives are aligned with our purpose and executed with discipline.

For employees, it means that everyone – from those who advise clients, to those who research investments, to those who manage technology platforms – knows why we do what we do, and how they can contribute to our purpose and use it to drive decision-making.

For society, it means that our role is broader than finance. We act responsibly and are committed to our communities, to sustainability and to supporting the world in tackling its biggest challenges.

Our approach to long-term value creation

As of or for the year ended 31 December 2022



The results we deliver

Output

Investors

- **USD 7.6bn** net profit attributable to shareholders
- **USD 2.25** diluted earnings per share
- **17.0%** return on CET1 capital
- **USD 3,957bn** invested assets
- **72.1%** cost / income ratio

Clients

- Simple and scalable processes and interactions through digital tools and platforms, such as UBS Neo, key4 and wealth management platforms
- An investment ecosystem with around **USD 4.0trn** in invested assets, bringing thought leadership, products and investable solutions to individuals and businesses around the world
- Partnership for a seamless client service accompanying clients all through their lives
- Established procedures and policies to handle, process and incorporate feedback and any potential complaints
- Providing high-quality execution, market access, bespoke financing, global capital markets, private markets, and portfolio solutions, delivered as one firm and with selected external partners

Employees

- Numerous business and employer awards that highlight our expertise and innovative solutions
- Fair and equitable pay, confirmed by EQUAL-SALARY Foundation certifications in all major locations
- An engaged and committed workforce, as evidenced by regular feedback and survey scores
- Women hold **27.8%** of Director and above roles
- Ethnic minorities hold **20.4%** of Director and above roles in the US and **23.0%** in the UK
- **More than 1,327,000** learning activities build skills and digital and agile capabilities

Society and environment

- **USD 269bn** in sustainability focus and impact investments (5.8% of total invested assets)
- **USD 10.1bn** private clients' money in SDG-related impact investments
- **USD 76m** donated to local programs by UBS, including affiliated foundations
- **177,000 hours** invested by UBS staff in community projects
- **USD 274m** donations raised by the UBS Optimus Foundation network in 2022
- **99%** of electricity sourced from renewable energy

er of investing.
or a better world.

global ecosystem for investing
ht leadership is impactful, people
connected, and opportunities
o life.

S Simplification & Efficiency
Culture

services, along with personal,
ng capabilities

How our stakeholders benefit

Outcome

- **USD 7.3bn** total capital to be returned to shareholders for the 2022 financial year, amounting to a 95% payout ratio of our net profit attributable to shareholders
- **USD 0.55** proposed dividend per share for the 2022 financial year
- **USD 5.6bn** of our shares were bought back in 2022
- We intend to buy back more than **USD 5bn** of shares by the end of 2023

- Long-term relationships built on mutual trust and integrity
- Access to tailored financial advice, solutions and services from around the globe; striving for attractive and risk-adjusted investment performance
- Improved satisfaction through the offering of personalized products and services, combined with convenient access and customer journeys
- Services accessible across various channels: traditionally through our branches and client advisor network, well complemented by our constantly evolving remote and digital channels

- Wide-ranging talent management processes mean employees can build skills, capabilities and satisfying careers
- Employee flexibility, including hybrid work options, promotes engagement, increased productivity and commitment
- Agile@UBS transforming how we work and increase our speed in finding solutions for clients
- Health and well-being initiatives foster resilience and ensure we maintain a cohesive culture
- Wide recognition as an employer of choice
- Commitments to fair pay and people management ensure employees have equal opportunities to achieve success

- **7.5%** exposure to carbon-related sectors on our banking balance sheet
- **13%** total reduction of our greenhouse gas footprint (scope 1 and 2 emissions) compared with 2021
- **370,916** young people and adults across the regions in which we operate benefited from our strategic community investments
- Committed **USD 150m** in grants from the UBS Optimus Foundation network
- **5.9m** people received support thanks to the UBS Optimus Foundation network

The impact we create

Impact

- Increased value for our investors through attractive risk-adjusted returns and sustainable performance, targeting cost- and capital-efficient growth

- An outstanding value proposition for our clients: understanding their evolving needs and expectations, focusing on convenience and personalization, serving their best interests, and being well positioned to capture growth in global wealth pools
- Securing a better future: we do this by providing funds to help finance the economic transition toward a more sustainable tomorrow
- Bridging between generations: as an organization in constant evolution, we stay relevant by adapting to the emerging needs of future generations, striving and working toward being their trusted advisor of choice

- An inclusive culture, where diversity in gender, race, ethnicity and other factors is valued and appreciated
- Employees are sought-after talent as a result of our multi-faceted approach to talent development and learning
- Employees worldwide benefit from working for a high-quality, responsible employer
- A workplace that offers flexibility, career growth and holistic support for employees' health and well-being

- Impact of our net-zero commitment
- Setting standards across the industry, challenging ourselves to raise the bar and inspiring others to join
- Contributing as a taxpayer and an employer
- Within Switzerland, our size, scale and reputation contribute to economic stability and reliability
- Supporting the transition to a low-carbon world
- Helping clients and employees to maximize their philanthropic impact

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Dear shareholders,

In 2022, the world was impacted by Russia's invasion of Ukraine, which led to a humanitarian crisis and wide-ranging sanctions. The war contributed to higher commodity prices, adding to inflation, which reached multi-decade highs in most major economies. This prompted central banks to tighten monetary policy at a pace not seen since the 1980s.

As a consequence, equity and bond markets fell in tandem. Global equities delivered a total negative return of 18.4%, and global GDP growth decelerated to 3.1% from 6.4% in 2021.

Our 2022 financial performance

Our globally diversified business, with strong positions across Switzerland, Asia Pacific, EMEA and the US, allowed us to deliver value for both our clients and you, our shareholders, in this challenging environment. Our outstanding client franchises are underpinned by a balance sheet for all seasons, a strong risk culture and an intense focus on costs. This enabled us to deliver good results in 2022 and achieve our Group financial targets for the full year, with a net profit of USD 7.6bn, a return on CET1 capital of 17.0% and a cost / income ratio of 72.1%. We also maintained a strong capital position, ending the year with a CET1 capital ratio of 14.2% and a CET1 leverage ratio of 4.42%, both significantly above our guidance.

Throughout 2022, our clients turned to us for stability and advice. We helped them reposition their portfolios and take advantage of longer-term opportunities. This resulted in USD 60bn of net new fee-generating assets in 2022. Net new money from our asset management clients reached USD 25bn for the year. And we saw continued interest in our separately managed account (SMA) offering in the US and in alternatives, contributing to our strong momentum.

Leveraging our position as Switzerland's leading universal bank

In our home market of Switzerland, we benefited from the stability of the economy and strengthened our position as the country's #1 universal bank. In 2022, we expanded our offering, with a focus on real estate, sustainability and pension solutions. Additionally, for our corporate clients, we launched a one-stop marketplace for partner products and services. All this helped us deliver above-market growth. And we plan to continue to do so. We will further invest in our strategic technology initiatives and support our clients' transition to mobile banking, where we have seen a 10 percentage point increase in active mobile clients. At the same time, we remain disciplined on expenses.

After the initial launch of UBS key4 in Switzerland, we continued to expand our digital product range. Increasingly, clients want to invest and manage their money more independently, preferably using their smartphones. With UBS key4 smart investing, clients can now do everything themselves – from opening an account to buying and selling selected funds – easily, intuitively and all online. Our focus on enhancing user experience has resulted in excellent client feedback and interest in engaging with our digital product range.

Building on our scale in the Americas

Regionally, more than half of our invested assets in wealth management come from clients in the US, which is the largest wealth pool globally. In 2022, we remained focused on delivering our entire firm to our core wealth, global family and institutional wealth clients by leveraging our investment banking and asset management capabilities as well as our thought leadership.

We will add to our scale and efficiencies by continuing to develop tailored solutions for global family and institutional wealth clients, expanding our banking capabilities with the long-term goal of becoming our clients' primary bank, recruiting highly productive advisors, and increasing the efficiency and effectiveness of our advisors, processes and controls.

Advisor recruitment is an important component of our organic growth strategy in the US. We have over 20% of Barron's Top 100 Private Wealth Management teams and we continued to recruit high-quality advisors in 2022 to support our industry-leading advisor productivity. By improving our use of digitalization, data and analytics, we are enhancing our financial advisors' ability to spend more time with clients, and offering a more personalized, relevant, on-time and seamless client experience. While we continue to simplify processes and invest in infrastructure and controls, we are also taking strategic and tactical actions on costs to strengthen profitability.

Capturing growth opportunities in Asia Pacific

Asia Pacific is the fastest-growing wealth market, and our long-term commitment to this region is a cornerstone of our strategy. UBS is by far the largest wealth manager in the region, and we are #1 in equity capital markets for non-domestic banks. In 2022, we delivered the best mergers and acquisitions year on record and were recently named both the Best Investment Bank in Asia and Australia by FinanceAsia and the Best Equity House in Asia and Australia by IFR. This gives us confidence in our ability to grow further. Our diversified business streams and multi-shoring capabilities enable us to mitigate short-term geopolitical and macroeconomic headwinds and focus on longer-term opportunities.

The easing of COVID-19 restrictions in China has led to a more positive outlook for 2023, and we are well positioned to support clients both onshore and offshore in China and the rest of Asia Pacific when client activity levels increase. Our launch of WE.UBS in October 2022 marked the first digital-led wealth management platform by a global wealth manager in China. Here, our goal is to be the provider of choice for digital-first wealth advisory for our targeted clients. And in Southeast Asia, we are expanding our global family and institutional wealth business to better serve family offices, entrepreneurs and Asian technology firms.

Driving focused growth in EMEA

In EMEA, we made further progress on improving profitability and driving focused growth. In 2022, we completed the sale of our domestic wealth management business in Spain, following the sale of our domestic Austrian business in 2021. We are continuing to pursue growth opportunities across Europe and the Middle East, especially by providing holistic coverage for entrepreneurs. In the Investment Bank, our Global Markets business had its best year on record, and we outperformed the fee pool in Global Banking.

Making technology a differentiator

We made further progress in leveraging technology as a differentiator, through simplification, automation and user-experience improvements. We removed around 39,000 legacy technology components and decommissioned over 600 applications in an effort to modernize our technology estate and enhance our cybersecurity position. As part of our approximately USD 1.1bn cumulative gross cost savings aspiration, we expect our technology strategy to help us achieve USD 200m in gross cost savings for 2023, which we intend to reinvest.

We are also supporting the development of new financial market infrastructure and are exploring new ideas to create better solutions for our clients. For example, digital assets and distributed ledger technology have the potential to radically transform our industry, and we expect the market for digital assets to continue to grow and evolve. In 2022, we launched and issued the world's first digital bond that is publicly traded and settled on both blockchain-based and traditional exchanges. Investors can buy this bond regardless of whether they have blockchain infrastructure, removing a hurdle in the adoption of the new and disruptive technology that can make issuing bonds faster and more efficient.

Investing in talent and new ways of working

In 2022, we focused on hiring talent with the right capabilities and agile mindsets. And our adoption of flexible ways of working has made us an even more attractive employer. As of year-end, around 18,500 employees across the firm are working in agile teams, which is helping us deliver faster, better and in a more connected way.

We are also making progress toward our aspiration of increasing female and ethnic minority representation. Five of the twelve members of our Group Executive Board, and four of the twelve members of our Board of Directors, are female. Women held 28% of Director and above roles globally as of the end of 2022, while ethnic minority employees held 20% of Director and above roles in the US and 23% in the UK.

We are committed to ongoing education of our workforce. We invested USD 78m in training in 2022, and our permanent employees completed an average of two training days each. We are also investing in the next generation. We welcomed more than 1,900 graduates, trainees, apprentices and interns to our firm through our junior talent programs worldwide. We also run multi-year apprenticeship programs in Switzerland, Australia and the UK, along with summer internship programs in numerous locations globally. In 2022, for the 14th consecutive year, we were recognized among the top 50 of the World's Most Attractive Employers by employer-branding expert Universum.



Colm Kelleher
Chairman of the Board of Directors



Ralph Hamers
Group Chief Executive Officer

A leader in sustainability

The transition to net zero will be one of the most consequential trends in the coming years. Technological advances and the need for new infrastructure and new products in carbon markets and agriculture are just some examples of the opportunities ahead. Blended finance vehicles that leverage philanthropic capital bring public–private partnerships to the fore. We have made good progress on the execution of our sustainability strategy, as outlined in our Sustainability Report 2022.

Our progress is also reflected in feedback from our stakeholders. At our 2022 Annual General Meeting (AGM), our shareholders supported our climate roadmap, including our net-zero targets. And we have made progress toward those targets across many areas of the firm, from our lending business to supply chains to our own operations. At the upcoming 2023 AGM, we will ask you to express your view on our 2022 non-financial reporting in an advisory vote. This is set out in our Sustainability Report 2022, which describes our sustainability strategy, ambitions, governance and achievements.

A number of key sustainability ratings have reconfirmed our leading position. We were again included in the Dow Jones Sustainability Index and the CDP Climate A list. We maintained our MSCI ESG rating of AA, and saw an improvement in ESG risk rating by Sustainalytics, which now considers our firm as “low risk.”

Our commitment to society and communities

UBS is committed to giving back to the communities where we live and work through long-standing partnerships and community-based engagement of our employees. We focus on education and skill development, which is where our resources can have the most impact. In 2022, 34% of our global workforce engaged in volunteering, and 45% of the 177,000 volunteer hours were skills-based.

In 2022, our UBS Optimus Foundation network raised USD 274m in donations, including UBS matching contributions, and committed USD 150m in grants. Donations and grants committed increased by 70% and 39%, respectively.

As of year-end 2022, the Ukraine Relief Fund had disbursed over half of the more than USD 50m committed by clients, employees, UBS and our strategic partner XTX Markets for relief and recovery efforts. The fund is supporting more than 25 organizations and their local partners in Ukraine and the neighboring countries of Poland, Moldova and Romania.

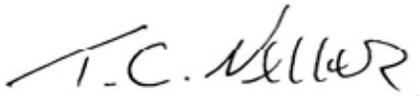
Our commitment to capital returns, today and in the future

We remain committed to delivering attractive capital returns and creating long-term sustainable value for our shareholders. For the 2022 financial year, the Board of Directors is proposing a dividend to UBS Group AG shareholders of USD 0.55 per share, an increase of 10% year over year. Having also repurchased USD 5.6bn of shares in 2022, we are returning USD 7.3bn of capital to our shareholders for the financial year.

Looking ahead, we will remain focused on the disciplined execution of our strategy to create value for our shareholders. We entered 2023 from a position of strength. We remain committed to a progressive dividend and expect to buy back more than USD 5bn of shares in 2023.

Thank you for your ongoing support. We look forward to your feedback and to welcoming you in person to this year's AGM, which will take place on 5 April in Basel, Switzerland.

Yours sincerely,



Colm Kelleher
Chairman of the Board of Directors



Ralph Hamers
Group Chief Executive Officer

Corporate information

UBS Group AG is incorporated and domiciled in Switzerland and operates under Art. 620ff. of the Swiss Code of Obligations as an Aktiengesellschaft, a corporation limited by shares. Its registered office is at Bahnhofstrasse 45, CH-8001 Zurich, Switzerland, telephone +41-44-234 11 11, and its corporate identification number is CHE-395.345.924. UBS Group AG was incorporated on 10 June 2014 and was established in 2014 as the holding company of the UBS Group. UBS Group AG shares are listed on the SIX Swiss Exchange and on the New York Stock Exchange (ISIN: CH0244767585; CUSIP: H42097107). UBS Group AG owns 100% of the outstanding shares in UBS AG.

UBS AG is incorporated and domiciled in Switzerland and operates under Art. 620ff. of the Swiss Code of Obligations as an Aktiengesellschaft, a corporation limited by shares. The addresses and telephone numbers of the two registered offices of UBS AG are: Bahnhofstrasse 45, CH-8001 Zurich, Switzerland, telephone +41-44-234 11 11; and Aeschenvorstadt 1, CH-4051 Basel, Switzerland, telephone +41-61-288 50 50. The corporate identification number is CHE-101.329.561. UBS AG is a bank. The company was formed on 29 June 1998, when Union Bank of Switzerland (founded in 1862) and Swiss Bank Corporation (founded in 1872) merged to form UBS AG.

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Office of the Group Company Secretary

The Group Company Secretary handles inquiries directed to the Chairman or to other members of the Board of Directors.

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Shareholder Services

UBS's Shareholder Services team, a unit of the Group Company Secretary's office, manages relationships with shareholders and the registration of UBS Group AG registered shares.

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+1-800-231-5469
TDD for foreign shareholders
+1-201-680-6610

Corporate calendar UBS Group AG

Publication of the Sustainability Report 2022:	Monday, 6 March 2023
Annual General Meeting 2023:	Wednesday, 5 April 2023
Publication of the first quarter 2023 report:	Tuesday, 25 April 2023
Publication of the second quarter 2023 report:	Tuesday, 25 July 2023
Publication of the third quarter 2023 report:	Tuesday, 24 October 2023

Corporate calendar UBS AG

Publication of the first quarter 2023 report:	Thursday, 27 April 2023
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Imprint

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Publication of the second quarter 2023 report: Thursday, 27 July 2023

Additional publication dates of quarterly and annual reports will be made available as part of the corporate calendar of UBS AG at ubs.com/investors.

Highlights of the 2022 financial year

We delivered good full-year results in a difficult macroeconomic and geopolitical environment.

Group results



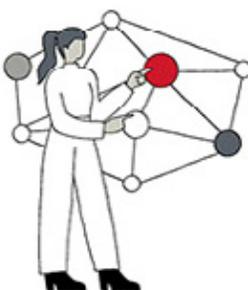
USD bn

7.6

Net profit attributable to shareholders

(2021: USD 7.5bn)

Resources



USD bn

56.9

Equity attributable to shareholders

(2021: USD 60.7bn)

Profitability



%

17.0

Return on common equity tier 1 capital

(2021: 17.5%)

USD
2.25

Diluted earnings per share

(2021: USD 2.06)

%
14.2

Common equity tier 1 capital ratio

(2021: 15.0%)

%
14.9

Return on tangible equity

(2021: 14.1%)

Our key figures

<i>USD m, except where indicated</i>	As of or for the year ended		
	31.12.22	31.12.21	31.12.20
Group results			
Total revenues	34,563	35,393	33,084
Credit loss expense / (release)	29	(148)	694
Operating expenses	24,930	26,058	24,235
Operating profit / (loss) before tax	9,604	9,484	8,155
Net profit / (loss) attributable to shareholders	7,630	7,457	6,557
Diluted earnings per share (USD) ¹	2.25	2.06	1.77
Profitability and growth²			
Return on equity (%)	13.3	12.6	11.3
Return on tangible equity (%)	14.9	14.1	12.8
Return on common equity tier 1 capital (%)	17.0	17.5	17.4
Return on leverage ratio denominator, gross (%) ³	3.3	3.4	3.4
Cost / income ratio (%)	72.1	73.6	73.3
Effective tax rate (%)	20.2	21.1	19.4
Net profit growth (%)	2.3	13.7	52.3
Resources²			
Total assets	1,104,364	1,117,182	1,125,765
Equity attributable to shareholders	56,876	60,662	59,445
Common equity tier 1 capital ⁴	45,457	45,281	39,890
Risk-weighted assets ⁴	319,585	302,209	289,101
Common equity tier 1 capital ratio (%) ⁴	14.2	15.0	13.8
Going concern capital ratio (%) ⁴	18.2	20.0	19.4
Total loss-absorbing capacity ratio (%) ⁴	33.0	34.7	35.2
Leverage ratio denominator ^{3,4}	1,028,461	1,068,862	1,037,150
Common equity tier 1 leverage ratio (%) ^{3,4}	4.42	4.24	3.85
Liquidity coverage ratio (%) ⁵	163.7	155.5	152.1
Net stable funding ratio (%) ⁶	119.8	118.5	119.2
Other			
Invested assets (USD bn) ⁷	3,957	4,596	4,187
Personnel (full-time equivalents)	72,597	71,385	71,551
Market capitalization ⁸	57,848	61,230	50,013
Total book value per share (USD) ⁸	18.30	17.84	16.74
Tangible book value per share (USD) ⁸	16.28	15.97	14.91

- 1 Refer to “Share information and earnings per share” in the “Consolidated financial statements” section of this report for more information.
- 2 Refer to the “Targets, aspirations and capital guidance” section of this report for more information about our performance targets.
- 3 Leverage ratio denominators and leverage ratios for year 2020 do not reflect the effects of the temporary exemption that applied from 25 March 2020 until 1 January 2021 and was granted by FINMA in connection with COVID-19. Refer to the “Regulatory and legal developments” section of our Annual Report 2020 for more information.
- 4 Based on the Swiss systemically relevant bank framework as of 1 January 2020. Refer to the “Capital, liquidity and funding, and balance sheet” section of this report for more information.
- 5 The disclosed ratios represent averages for the fourth quarter of each year presented, which are calculated based on an average of 63 data points in the fourth quarter of 2022, 66 data points in the fourth quarter of 2021 and 63 data points in the fourth quarter of 2020. Refer to the “Capital, liquidity and funding, and balance sheet” section of this report for more information.
- 6 The final Swiss net stable funding ratio (NSFR) regulation became effective on 1 July 2021. Prior to this date, the NSFR was based on estimated pro forma reporting. Refer to the “Capital, liquidity and funding, and balance sheet” section of this report for more information.
- 7 Consists of invested assets for Global Wealth Management, Asset Management and Personal & Corporate Banking. Refer to “Note 31 Invested assets and net new money” in the “Consolidated financial statements” section of this report for more information.
- 8 Refer to “UBS shares” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information.

Alternative performance measures

An alternative performance measure (an APM) is a financial measure of historical or future financial performance, financial position or cash flows other than a financial measure defined or specified in the applicable recognized accounting standards or in other applicable regulations. We report a number of APMs in the discussion of the financial and operating performance of the Group, our business divisions and our Group Functions. We use APMs to provide a more complete picture of our operating performance and to reflect management’s view of the fundamental drivers of our business results. A definition of each APM, the method used to calculate it and the information content are presented under “Alternative performance measures” in the appendix to this report. Our APMs may qualify as non-GAAP measures as defined by US Securities and Exchange Commission (SEC) regulations.

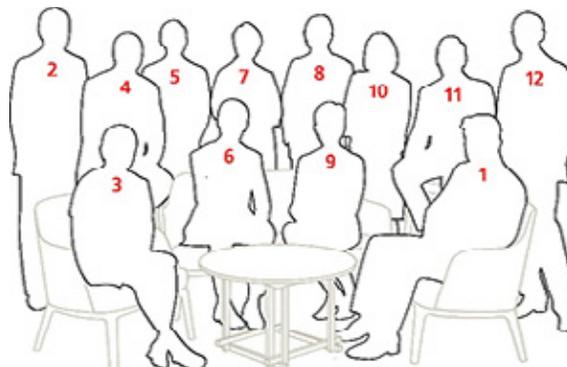
Terms used in this report, unless the context requires otherwise

“UBS,” “UBS Group,” “UBS Group AG consolidated,” “Group,” “the Group,” “we,” “us” and “our”	UBS Group AG and its consolidated subsidiaries
“UBS AG consolidated”	UBS AG and its consolidated subsidiaries
“UBS Group AG” and “UBS Group AG standalone”	UBS Group AG on a standalone basis
“UBS AG” and “UBS AG standalone”	UBS AG on a standalone basis
“UBS Switzerland AG” and “UBS Switzerland AG standalone”	UBS Switzerland AG on a standalone basis
“UBS Europe SE consolidated”	UBS Europe SE and its consolidated subsidiaries
“UBS Americas Holding LLC” and “UBS Americas Holding LLC consolidated”	UBS Americas Holding LLC and its consolidated subsidiaries
“1m”	One million, i.e., 1,000,000
“1bn”	One billion, i.e., 1,000,000,000
“1trn”	One trillion, i.e., 1,000,000,000,000

In this report, unless the context requires otherwise, references to any gender shall apply to all genders.

Our Board of Directors

- 1 Colm Kelleher**
Chairman of the Board of Directors / Chairperson of the Corporate Culture and Responsibility Committee / Chairperson of the Governance and Nominating Committee
- 2 Mark Hughes**
Chairperson of the Risk Committee / member of the Corporate Culture and Responsibility Committee
- 3 Jeanette Wong**
Member of the Audit Committee / member of the Compensation Committee
- 4 Jeremy Anderson**
Senior Independent Director / Chairperson of the Audit Committee / member of the Governance and Nominating Committee
- 5 Fred Hu**
Member of the Governance and Nominating Committee
- 6 Lukas Gähwiler**
Vice Chairman of the Board of Directors
- 7 Claudia Böckstiegel**
Member of the Corporate Culture and Responsibility Committee
- 8 Patrick Firmenich**
Member of the Audit Committee / member of the Corporate Culture and Responsibility Committee
- 9 Nathalie Rachou**
Member of the Governance and Nominating Committee / member of the Risk Committee
- 10 Julie G. Richardson**
Chairperson of the Compensation Committee / member of the Risk Committee
- 11 William C. Dudley**
Member of the Corporate Culture and Responsibility Committee / member of the Risk Committee
- 12 Dieter Wemmer**
Member of the Audit Committee / member of the Compensation Committee





The Board of Directors (the BoD) of UBS Group AG, under the leadership of the Chairman, consists of between 6 and 12 members as per our Articles of Association. The BoD decides on the strategy of the Group upon recommendation by the Group Chief Executive Officer (the Group CEO) and is responsible for the overall direction, supervision and control of the Group and its management, as well as for supervising compliance with applicable laws, rules and regulations. The BoD exercises oversight over UBS Group AG and its subsidiaries and is responsible for establishing a clear Group governance framework to provide effective steering and supervision of the Group, taking into account the material risks to which UBS Group AG and its subsidiaries are exposed. The BoD has ultimate responsibility for the success of the Group and for delivering sustainable shareholder value within a framework of prudent and effective controls, approves all financial statements for issue, and appoints and removes all Group Executive Board (GEB) members.

Our Group Executive Board

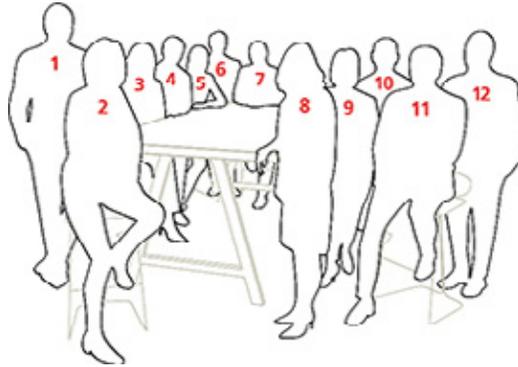


UBS Group AG operates under a strict dual-board structure, as mandated by Swiss banking law, and therefore the BoD delegates the management of the business to the GEB. Under the leadership of the Group CEO, the GEB was composed of 12 members as of 31 December 2022 and has executive management responsibility for the steering of the Group and its business. It develops the strategies of the Group, the business divisions and Group Functions, and implements the BoD-approved strategies.

- **Refer to “Board of Directors” and “Group Executive Board” in the “Corporate governance” section of this report or to ubs.com/bod and ubs.com/geb for the full biographies of our BoD and GEB members**



- 1 **Ralph Hamers**
Group Chief Executive Officer
- 2 **Sabine Keller-Busse**
President Personal & Corporate Banking and
President UBS Switzerland
- 3 **Naureen Hassan**
President UBS Americas
- 4 **Edmund Koh**
President UBS Asia Pacific
- 5 **Barbara Levi**
Group General Counsel
- 6 **Markus Ronner**
Group Chief Compliance and Governance Officer
- 7 **Robert Karofsky**
President Investment Bank
- 8 **Sarah Youngwood**
Group Chief Financial Officer
- 9 **Suni Harford**
President Asset Management
- 10 **Mike Dargan**
Group Chief Digital and Information Officer
- 11 **Iqbal Khan**
President Global Wealth Management and
President UBS Europe, Middle East and Africa
- 12 **Christian Bluhm**
Group Chief Risk Officer



Our evolution

Since our origins in the mid-19th century, many financial institutions have become part of the history of our firm and helped shape our development. 1998 was a major turning point: two of the three largest Swiss banks, Union Bank of Switzerland and Swiss Bank Corporation (SBC), merged to form UBS. Both banks were well established and successful in their own right. Union Bank of Switzerland had grown organically to become the largest Swiss bank. In contrast, SBC had grown mainly through strategic partnerships and acquisitions, including S.G. Warburg in 1995.

In 2000, we acquired PaineWebber, a US brokerage and asset management firm with roots going back to 1879, establishing us as a significant player in the US. For nearly 60 years, we have been building our strong presence in the Asia Pacific region, where we are by far the largest wealth manager,¹ with asset management and investment banking capabilities.

After incurring significant losses in the 2008 financial crisis, we sought to return to our roots, emphasizing a client-centric model that requires less risk-taking and capital. In 2011, we started a strategic transformation of our business model to focus on our traditional businesses: wealth management globally, and personal and corporate banking in Switzerland.

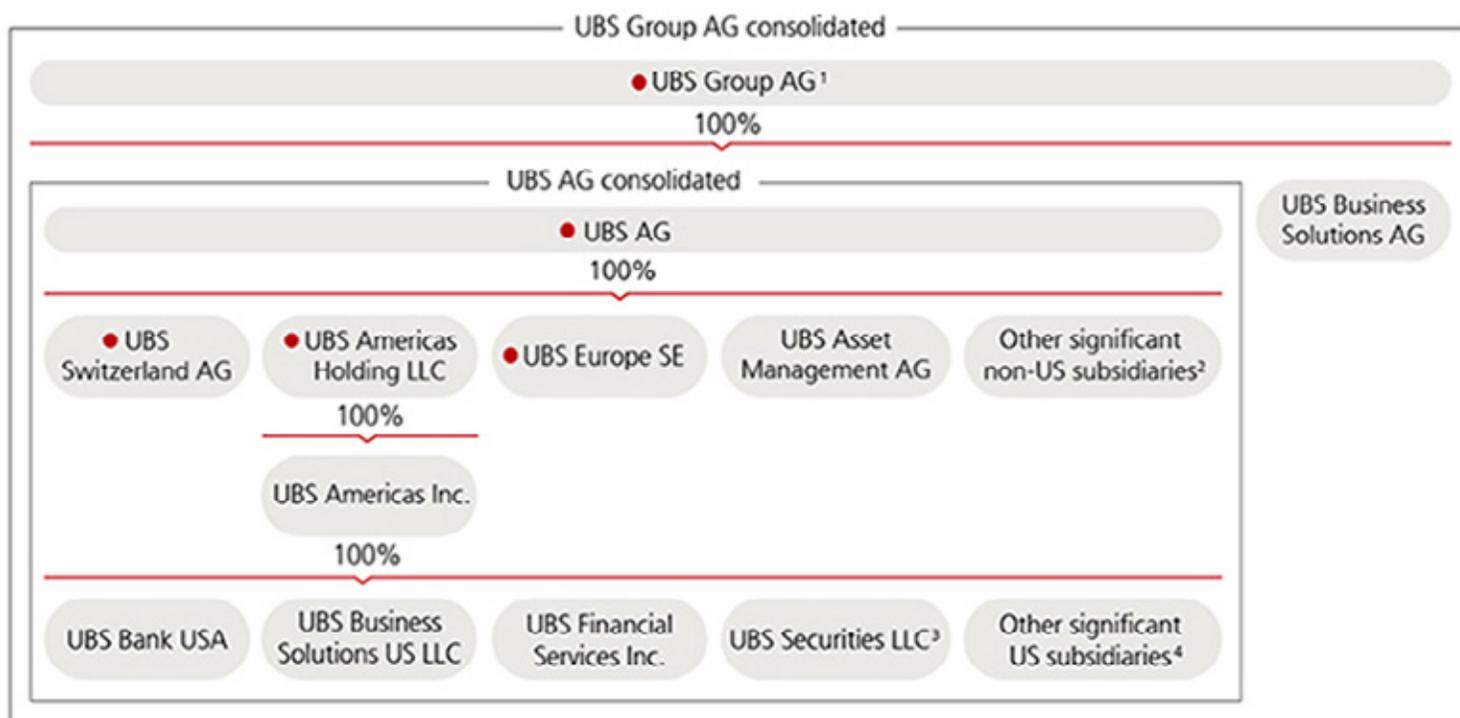
Today, we are a leading and truly global wealth manager,² a leading Swiss personal and corporate bank, a global, large-scale and diversified asset manager, and a focused investment bank.

In 2014, we began adapting our legal entity structure in response to too-big-to-fail requirements and other regulatory initiatives. First, we established UBS Group AG as the ultimate parent holding company for the Group. In 2015, we transferred personal and corporate banking and Swiss-booked wealth management businesses from UBS AG to the newly established UBS Switzerland AG. That same year, we set up UBS Business Solutions AG as the Group's service company. In 2016, UBS Americas Holding LLC became the intermediate holding company for our US subsidiaries and our wealth management subsidiaries across Europe were merged into UBS Europe SE, our Germany-headquartered European subsidiary. In 2019, we merged UBS Limited, our UK-headquartered subsidiary, into UBS Europe SE.

The chart below gives an overview of our principal legal entities and our legal entity structure.

- Refer to ubs.com/history for more information
- Refer to the “Risk factors” and “Regulatory and legal developments” sections of this report for more information

The legal structure of the UBS Group



● Holding company and significant regulated subsidiaries and sub-groups subject to disclosure in UBS Group AG annual and quarterly reporting.

¹ Refer to “Note 28 Interests in subsidiaries and other entities” in the “Consolidated financial statements” section of this report for more information about UBS’s subsidiaries. ² Other significant non-US subsidiaries are generally held either directly by UBS AG or indirectly through UBS Switzerland AG or UBS Asset Management AG. ³ Of which 99% directly held by UBS Americas Inc. and 1% held by UBS Americas Holding LLC. ⁴ Other significant US subsidiaries are generally held either directly by UBS Americas Inc. or indirectly through UBS Financial Services Inc.

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- ¹ Private banking assets under management excluding China onshore in 2021, according to Asian Private Banker.
 - ² Statements of market position for Global Wealth Management are based on UBS's internal estimates and publicly available information about competitors' invested assets.

Our strategy, business model and environment

Management report

Our strategy

UBS – who we are

UBS is a leading and truly global wealth manager with focused asset management and investment banking capabilities, and the leading universal bank in Switzerland. We enable people, institutions and corporations to achieve their goals by providing financial advice and solutions. We have a capital-light, cash-generative and well-diversified business model, a strong culture, a balance sheet for all seasons, and a respected brand with over 160 years of history.

At UBS, we are driven by a common purpose: **Reimagining the power of investing. Connecting people for a better world.** This focus provides direction on the way forward and helps us build on our strengths.

We are focused on driving long-term growth while maintaining risk and cost discipline

Our objective is to generate value for our shareholders and clients by driving long-term growth. To accomplish this, we are building on our scale, content and solutions, while remaining disciplined on risk and costs. This will give us the capacity to invest strategically and will enable us to deliver against our financial targets and commercial aspirations, which are outlined in the “Targets, aspirations and capital guidance” section of this report.

Moreover, we are aiming to maximize our and our clients’ impact to create long-term sustainable value. We also have a responsibility toward our communities and employees. We have outlined selected environmental, social and governance (ESG) aspirations, which should support our financial and commercial targets.

Our business model helps us to achieve our growth ambitions

In early 2022, we set out our strategy, which we have been executing on since. Our growth plans aim to increase the value of our network of clients, connections and contributors, in which UBS’s scale, global reach and capabilities play a central role.

Our invested assets of USD 4.0trn are regionally diversified across the globe, making us a highly attractive partner to many sophisticated and specialized contributors. This enables us to give our clients access to a broader, more relevant and customizable range of solutions, which, together with our thought leadership and capabilities, position us well to become their partner of choice. Our plans are a reflection of the outlook on long-term demographic and social trends affecting wealth distribution, product demand and client experience. As we see clients’ needs changing, we also expect continued growth in alternatives and ESG products.

Clients are at the center of everything we do

Helping clients to achieve their financial goals is the essence of what we do. We aim to differentiate our service by delivering a client experience that is personalized, relevant, on-time and seamless. This is our promise to clients.

With evolving client needs, we are adapting by making our wealth coverage more needs-based, digital and effective. In wealth management, our focus remains on our core wealth, global family and institutional wealth clients, while expanding our coverage of entrepreneurs, women and the next generation of wealthy individuals. We are launching and scaling digitally customizable services, enhancing personally advised wealth with digital support, and expanding our custom offerings for global family and institutional wealth to cater for the different needs of our clients.

- **Refer to “Clients” in the “How we create value for our stakeholders” section of this report for more information**

We have a global, diversified business model

Regionally, more than half of our wealth management clients’ invested assets are in the US, which is the largest wealth pool globally. Here, we are focused on improving scale and profitability by deepening our relationships with core clients and by building out Global Wealth Management’s digital-led capabilities and banking platform.

In Asia Pacific, which is the fastest-growing wealth market, we are by far the largest wealth manager¹ and are building on that scale to drive growth. We are further developing our onshore business in China and working to offer our capabilities in a more cohesive way to our clients in Southeast Asia.

In EMEA, we are focused on improving profitability and driving focused growth, by streamlining our domestic footprint and providing holistic coverage for entrepreneurs.

Finally, in Switzerland, we have a highly integrated business and aim to expand our lead as the #1 universal bank. We are driving the digital transformation, improving the client experience, and focusing on capturing selected growth opportunities.

Our growth plans are underpinned by our asset management and investment banking capabilities

Our asset management business provides clients with a broad offering and exclusive access to premium customized services, while our investment banking capabilities support our growth plans across the client franchise with unique insights, execution and risk management. Close collaboration between our businesses also adds value for clients, including in private markets, alternatives and ESG products, and we are actively looking for additional such opportunities.

Sustainability drives our ambitions and informs our purpose

We partner with our clients to help them mobilize their capital toward a more sustainable world. At UBS, we want to meet clients' demands for a credible sustainable offering. We want to be the financial provider of choice for clients that wish to mobilize capital toward the achievement of the United Nations Sustainable Development Goals and the orderly transition to a low-carbon economy. In Switzerland, as the leading universal bank, we are helping finance the country's transition to net zero.

We are investing in our technology

The trusted and personal relationship with our clients across our businesses is evolving. Today, our clients expect us to provide our services more seamlessly across the firm in a personalized, relevant and timely fashion, with increasing demand for services that are digital first, anytime and anywhere. This presents an opportunity for us to fully embrace technology and make it a differentiator for our firm. To support our ambitions, we have established our technology strategy based on five key pillars: (i) Agile@UBS, a unified approach to working in an agile way across the firm to become faster and more adaptable; (ii) engineering excellence, as, in order to succeed in making technology a differentiator for our firm, we must attract and retain the best engineers, which is only possible by creating and fostering an engineering and digital culture of excellence; (iii) quarterly business reviews and digital roadmaps that help us to manage our technology investment portfolio in a more strategic and flexible way; (iv) automation, which increases efficiency and effectiveness; and (v) modern technology, which accelerates digitalization and efficiency.

We are becoming simpler and more efficient

In order to continuously increase efficiency and our capacity to invest, we are working to become simpler, by further streamlining and standardizing our functions, processes, entities and general ways of doing business, including our Agile@UBS approach, to ultimately improve the client experience.

¹ Private banking assets under management excluding China onshore in 2021, according to Asian Private Banker.

Our focus on technology

The world is faster, more digital and more data-driven than ever before, with clients increasingly demanding services that are digital first, anytime, anywhere, and underpinned by first-class technology. Through our technology strategy and five key pillars (Agile@UBS; engineering excellence; quarterly business reviews and digital roadmaps; automation; and modern technology), we aim to make technology a differentiator for our clients and employees, helping to deliver on our client promise. We are championing the adoption of a single, consistent, agile setup across the firm, driving transformational and sustainable approaches to our real estate and technology, building an engineering culture to be proud of, and fostering firm-wide operational resilience.

In 2022, our unified agile approach helped us drive greater business value, enhance the client experience and be more responsive and adaptable, with faster delivery of client digital solutions. Overall, approximately 18,500 employees transitioned to working in new Agile@UBS ways, and we continued our efforts to create and foster an engineering culture of excellence, in order to attract and retain the best engineers. Currently, approximately two-thirds of our global technology team within the Chief Digital and Information Office (CDIO) are engineers that are instrumental to responding to our clients' digital needs, while the remaining part of the technology team manages critical operational functions at UBS.

- **Refer to “Clients” in the “How we create value for our stakeholders” section of this report for more information about client digital solutions**
- **Refer to “Employees” in the “How we create value for our stakeholders” section of this report for more information about agile ways of working**

We are using the quarterly business reviews and digital roadmaps to help us manage our technology investment portfolio in a more strategic and flexible way. During 2022, we aligned 70% of our technology investments to agile teams that deliver incremental and continuous value to our clients. In addition, we also moved from multiple to one single UBS DevCloud toolchain and we are increasingly adopting an industry-standard set of metrics (DORA) to measure the efficiency of our software development process.

We believe the bank of the future will leverage a lean, modern technology estate and Cloud-based applications to provide clients with flexible, best-in-class service. As such, in 2022, we removed approximately 39,000 legacy technology components and decommissioned more than 600 applications, as a step to modernize our technology estate and enhance our cybersecurity position. We also announced the landmark expansion of our partnership with Microsoft, to accelerate our Cloud footprint over the next five years. As of 31 December 2022, 65% of our applications were on the public Cloud (i.e., servers not on UBS's premises) or on our private Cloud (i.e., servers on UBS's premises).

Targets, aspirations and capital guidance

We aim to create sustainable value through the cycle, which is reflected by our financial targets. In addition, we have outlined selected commercial aspirations, which support these targets.

Our capital guidance remains unchanged. We intend to operate with a common equity tier 1 (CET1) capital ratio of around 13% and a CET1 leverage ratio of greater than 3.7%. The Investment Bank is expected to represent up to one-third of Group risk-weighted assets and leverage ratio denominator.

Performance against targets, aspirations and capital guidance is taken into account when determining variable compensation.

The table below shows our targets, guidance and aspirations, based on reported results. Our aspirations on environmental, social and governance (ESG) are set forth in "Our focus on sustainability and climate" in the "How we create value for our stakeholders" section of this report.

- Refer to "Society" and "Our focus on sustainability and climate" in the "How we create value for our stakeholders" section and to the "Corporate governance" section of this report for more information about ESG
- Refer to the "Compensation" section of this report for more information about variable compensation
- Refer to "Alternative performance measures" in the appendix to this report for definitions of and further information about our performance measures

Financial Targets

15–18% Return on CET1 capital

70–73% Cost / income ratio

10–15% GWM PBT² growth over the cycle

Capital Guidance

~13% CET1 capital ratio

>3.7% CET1 leverage ratio

>5bn Share repurchases, 2023 financial year, in USD

Commercial Selected aspirations

>6trn Invested assets, in USD across GWM, AM and P&C

>5% NNFGA¹ growth GWM, over the cycle

¹ Net new fee-generating asset. ² Profit before tax.

Our businesses

Delivering one ecosystem

We operate through four business divisions: Global Wealth Management, Personal & Corporate Banking, Asset Management and the Investment Bank. Our global reach and the breadth of our expertise are the major assets setting us apart from our competitors.

We see joint efforts as key to our growth, both within and between business divisions. We combine our strengths to provide our clients with better, innovative solutions and differentiated offerings, for example, our Global Family & Institutional Wealth (GFIW) offering with integrated global coverage. Initiatives such as the *Group Franchise Awards* encourage employees to look for ways to connect across teams and offer the whole firm to our clients.

How we deliver the whole firm to our clients – examples

Global Family & Institutional Wealth

GFIW is a cross-divisional offering that leverages capabilities from the Investment Bank and client coverage from Global Wealth Management to address the execution, investment, risk management, financing and banking needs of family offices and their corporate entities, as well as entrepreneurs. Drawing on UBS's client ecosystem, we aim to connect clients with like-minded peers and recognized experts to exchange ideas and bring opportunities to life for a return and impact. Client coverage is managed via regional cross-functional teams (GFIW market pods).

Wealth management platforms

In our major booking centers outside the Americas, we use the Wealth Management Platform, which is shared between Global Wealth Management and Personal & Corporate Banking in Switzerland. In the Americas, we continue to build out our Wealth Management Americas digital capabilities. All our platforms can be navigated intuitively and support strong advisory capabilities across channels, helping our clients to benefit from a broader universe of products and services, simplified onboarding, and a better banking experience.

Separately managed accounts (SMAs)

We offer Global Wealth Management clients access to selected separately managed account strategies in the Americas with no additional management fees, including an extensive range of strategies managed by Asset Management. This enables our advisors to focus on delivering the best ideas, solutions and capabilities to our clients, regardless of where they originate.

Shifts and referrals

To best serve our clients according to their needs, and to foster growth, we operate a holistic collaboration framework within our universal bank delivery model in Switzerland. We initiate client shifts from Personal Banking to Global Wealth Management as their needs become more complex. Examples of referrals include corporate and institutional clients being introduced to Asset Management for mandate solutions or to the Investment Bank for capital market transactions, thus providing access to our global expertise, and entrepreneurs being introduced to Global Wealth Management, ensuring holistic coverage of their corporate and private needs.

Global Lending Unit

The Global Lending Unit delivers lending capabilities to clients of both the Investment Bank and Global Wealth Management. The unit provides product expertise to clients through collaboration with Investment Bank bankers and Global Wealth Management advisors. It is organized with a regional focus by grouping existing regional resources and competencies to best serve respective markets and clients.

Unified Global Markets

We continue to develop the cross-divisional strategic partnership between Global Wealth Management and the Investment Bank, focused on providing differentiated content that helps our clients identify the best trading opportunities, uncover new evidence, and generate fresh insights to meet their investment needs. Through our integrated approach, we provide structured, scalable investment products, asset and liability management solutions, financing alternatives and other value-added bespoke solutions that deliver a quality client experience and outcome by catering to specific coverage needs.

Global Wealth Management

As a leading and truly global wealth manager,¹ we help our clients pursue what matters most to them. More than 20,000 employees around the world help to manage our clients' finances from locations in the Americas, Europe, the Middle East and Asia. Clients look to us to provide them with the tailored advice, expertise and solutions that they need, to protect and grow their wealth, today, tomorrow and for generations to come. The size and diversification of our global franchise, our bespoke cross-divisional solutions, and our premium brand and reputation set us apart.

We have strong positions in the largest and the fastest-growing regions – respectively, the US and Asia Pacific – and clearly defined regional priorities: scaling our franchise in the US; capturing growth in Asia Pacific; increasing profitability in EMEA; and increasing market share in Switzerland, our home market. Our focus remains on our core client base of ultra high and high net worth individuals through trusted relationships with our advisors, while expanding our coverage of entrepreneurs, women and the next generation of wealthy individuals. We are also strengthening our capabilities to serve our clients with the most sophisticated needs through our Global Family & Institutional Wealth (GFIW) offering.

As our clients' needs are changing, we are adapting our capabilities and coverage. We are therefore launching and scaling digitally customizable services, enhancing our personally advised wealth management offering with digital support and expanding our custom offerings for global family and institutional wealth to cater for the different needs of our clients.

Organizational changes

On 3 October 2022, Iqbal Khan became sole President Global Wealth Management. Since joining UBS in 2019, Mr. Khan had served as Co-President Global Wealth Management with Tom Naratil, who stepped down after nearly four decades with UBS.

In April 2022, to better cater to our clients with institutional-like needs that require a more bespoke offering, we created GFIW, a cross-divisional offering that leverages capabilities from the Investment Bank and client coverage from Global Wealth Management.

In August 2022, UBS and Wealthfront mutually agreed to terminate the merger agreement first announced in January 2022, under which Wealthfront was to be acquired by UBS Americas Inc. The two organizations will continue to explore ways to work together, and, as part of that process, UBS purchased a USD 69.7m note convertible into Wealthfront shares.

In the second half of 2022, we completed the sales of our wholly owned subsidiary UBS Swiss Financial Advisers AG, our domestic wealth management business in Spain and our US alternative investments administration business.

How we do business

Our distinctive approach to wealth management is designed to help our clients pursue what matters most to them by offering advice, expertise and solutions and delivering on our client promise to be personalized, relevant, on-time and seamless.

Our Chief Investment Office (the CIO) produces the *UBS House View*, identifying investment opportunities designed to protect and increase our clients' wealth over the longer term, directing the investment advice for and management of more than USD 1trn in fee-generating assets globally. Close integration between idea generation and product development enables us to deliver to clients CIO-aligned investment solutions, such as the investment modules in *UBS Manage Advanced [My Way]*. In Asia Pacific and Switzerland, the *Direct Investment Insights* function on our online banking platform enables clients to trade directly based on CIO insights via their smartphones and other digital devices.

- **Refer to “Clients” in the “How we create value for our stakeholders” section and to “Our focus on technology” in the “Our strategy” section of this report for more information about innovation and digitalization**

Regional Chief Investment Officers leverage direct client feedback and insights from Client Analytics to deepen our understanding of clients' needs. Our product specialists deliver investment solutions, including our flagship investment mandates, as well as innovative long-term themes and sustainable investment offerings.

In addition to our investment products, we offer extensive mortgage, securities-based and structured lending expertise. We provide clients with advice on wealth planning, sustainability and impact investing, and corporate and banking services, while specialist teams also advise on art and collecting, family strategy and governance, philanthropy, next generation, and wealth transition.

- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about sustainability matters**

Chief Investment Office-led value chain



Clients

Listening to our clients' views, considering their risk profiles and their investment goals



Ideas in a UBS House View context
Well-researched investment advice, thought leadership



Design of solutions
Solutions aligned to the UBS House View: discretionary and advisory mandates, alternatives, structured solutions, etc.



Communications
Transmission to clients and advisors



Implementation & Execution
Positioning of solutions by advisors, seamless execution. Tailored advice to the clients

The investment advice for and management of more than USD 1trn in fee-generating assets globally, underpinned by robust risk management

Note: CIO develops a clear, concise and consistent investment assessment – the UBS House View, consisting of strategic asset allocation and tactical asset allocation.

Our private markets business gives clients access to investments in private equity funds, hedge funds and real estate. Furthermore, we have increased our offering of institutional-grade products, such as our *Co-Investment STRIPE* (strategic investments in private equity) opportunities, a feeder structure to enable clients to invest in closed-ended institutional private market funds. We have made it easier for private clients to access investment products and services suited to their individual preferences, e.g., by expanding access to our *Advice SI* and separately managed accounts (SMA) solutions in the US, and new targeted sustainability focus and impact offerings. Our Global Wealth Management clients have invested more than USD 20bn in discretionary mandates aligned to our sustainable investing strategic asset allocation. Additionally, we continue to broaden our offering across asset classes and themes, collaborating with external partners, such as Robeco Asset Management, Ambienta, Rockefeller Asset Management, Rethink Impact and Bridge Investment Group, to provide clients with access to differentiated sustainable- and impact-investing opportunities.

We are investing in our operating platforms and tools to better serve our clients' needs, improve their experience and enhance overall advisor productivity. As of 31 December 2022, more than 80% of invested assets outside the Americas were booked on our *Wealth Management Platform*. In the US, we are enhancing the Wealth Management Americas workstation for advisors, by delivering new functionalities, as well as driving simplification and improving our banking capabilities.

- **Refer to “Clients” in the “How we create value for our stakeholders” section and to “Our focus on technology” in the “Our strategy” section of this report for more information about innovation and digitalization**

Our digital transformation aims to make us faster and more responsive and our services more convenient for our clients. Our clients benefit from a more seamless service across platforms and devices, and our advisors and the teams that support them are aspiring to deliver best-in-class content and solutions with increasing speed, relevance and personalization. We are developing new service models through which we seek to serve our clients according to their individual needs and preferences, based on scalable digital platforms, and underpinned by our client promise: providing service that is personalized, relevant, on-time and seamless.

For clients with complex financial needs, our GFIW offering addresses the execution, investment, risk management, financing and banking needs of family offices and their corporate entities, as well as entrepreneurs. In our core personally advised service model, we focus on expanding our coverage of entrepreneurs, women and next-generation clients, alternative investments as a differentiated source of returns, and increasing digital convenience for all our clients. We are making continuous improvements to our digital platforms, and have rolled out innovative new solutions, such as *Circle One* (in 2022), a global ecosystem that connects clients to experts, thought leaders and actionable investment ideas, and *UBS My Way* (in 2021), a next-generation portfolio management solution that enables clients to tailor their investments to their individual preferences. We have introduced the *UBS My Way* solution in Germany, Italy and Japan, and plan to also offer it in other markets. We have launched *WE.UBS*, the first digital-only offering launched by a global wealth manager in China, and we are planning the launch of further regional solutions.

We closely collaborate across business divisions to deliver UBS's best capabilities to our clients. Joint efforts with the Investment Bank, Asset Management and selected external partners enable us to offer clients broad access to financing, global capital markets and bespoke portfolio solutions. For example, we launched an SMA initiative in 2020 with Asset Management in the US and continued to expand our SMA offering throughout 2022. The initiative generated USD 21bn in net new money inflows in 2022, bringing total invested assets from this initiative to USD 125bn.

- Refer to “Delivering one ecosystem” in this section for examples of the joint efforts of the business divisions

Our operations and our competitors

We operate a global business tailored to both regional and local clients, combining scale with an ability to provide local offerings to best serve our clients' needs. We are regularly recognized as a leading wealth manager by independent industry awards on a global, regional and country level.

The US is our largest market, accounting for around half of our invested assets, and we are recognized as the industry-leading firm in terms of overall client satisfaction.² In Asia Pacific, we are by far the largest wealth manager³ and have received numerous independent industry awards for several years in a row,⁴ recognizing our long-term commitment to the region. In our home market of Switzerland, we are the leading wealth manager⁵ and continue to extend our leading market position with above-market growth and investments into digitalizing our core business. In Western Europe, we have a strong footprint, which we further optimized with the sales of our domestic businesses in Spain (in 2022) and Austria (in 2021), and have been recognized as the best bank for wealth management several years in a row.⁶ In Latin America, we continue to expand our strategic partnership with Banco do Brasil, helping us remain the best bank for wealth management in the region.⁷ We were able to deliver a strong performance in Central & Eastern Europe, Greece and Israel despite substantial geopolitical challenges in parts of the region, supported by our GFIW offering. In the Middle East and Africa, we are building out our offering with further investment in local offices, such as Dubai and Qatar, emphasizing our commitment to the region and building on our local strength.⁸

Our competitors fall into two categories: competitors with a strong position in the Americas but more limited global footprints, such as Morgan Stanley and JPMorgan Chase; and competitors with similar international footprints but with a smaller presence than UBS in the US, such as Credit Suisse and Julius Baer. We have strong positions in the largest and the fastest-growing regions (respectively, the US and Asia Pacific). The size and diversification of our global franchise, bespoke cross-divisional solutions, and premium brand and reputation set us apart and would be difficult for our competitors to replicate.

2022 selected highlights

As of or for the year ended 31 December 2022



¹ Hedge fund businesses and private markets.

¹ Statements of market position for Global Wealth Management are based on UBS's internal estimates and publicly available information about competitors' invested assets.

² Highest in client satisfaction with full-service brokerage firms in the J.D. Power 2022 survey.

³ Private banking assets under management excluding China onshore in 2021, according to Asian Private Banker.

⁴ Awards won in two or more consecutive years include the Private Banker International Global Wealth Awards, PWM / The Banker Private Banking Awards, Euromoney Private Banking Awards, Asiamoney Asia Private Banking Awards, WealthBriefingAsia Awards and Asian Private Banker Awards.

⁵ Recognized as “Best Private Bank Switzerland” by Euromoney Private Banking Awards in 2022.

⁶ Recognized as “Western Europe’s Best Bank for Wealth Management” by Euromoney Awards for Excellence in 2020, 2021 and 2022.

⁷ Recognized as “Latin America’s Best Bank for Wealth Management” by Euromoney Awards for Excellence in 2022.

⁸ Recognized as “Middle East’s Best Bank for Wealth Management” by Euromoney Awards for Excellence in 2020, 2021 and 2022.

Personal & Corporate Banking

As the #1 Swiss universal bank, we provide a comprehensive range of financial products and services to private, corporate and institutional clients. Personal & Corporate Banking is the core of our universal bank in Switzerland. As a market leader across all our business areas, we strive to grow at a rate faster than the Swiss market. We aim to be digital at the core by enabling our clients to satisfy most of their banking needs via our apps, while offering a user experience that is personalized, relevant, on-time and seamless.

How we do business

Our personal banking clients have access to a comprehensive, life-cycle-based offering. This includes a broad range of basic banking products, from payments to deposits, cards and convenient online and mobile banking, as well as lending (predominantly mortgages), investments and retirement planning services. In 2022, we were once again named the “Best Bank in Switzerland” by Euromoney. Our offering is complemented by our *UBS KeyClub* reward program, which provides clients in Switzerland with exclusive and attractive offers, some of which are offered in collaboration with our external partners. We also work closely with Global Wealth Management to provide our clients with access to leading wealth management services.

Our corporate and institutional clients benefit from our financing and investment solutions, in particular access to equity and debt capital markets, syndicated and structured credit, private placements, leasing, and traditional financing. We offer transaction banking solutions for payment and cash management services, trade and export finance, and global custody solutions for institutional clients.

We work closely with the Investment Bank to offer capital market and foreign exchange products, hedging strategies, and trading capabilities, as well as corporate finance advice. In cooperation with Asset Management, we also provide fund and portfolio management solutions.

- **Refer to “Delivering one ecosystem” in this section for examples of the joint efforts of the business divisions**

While continuing to focus on the needs of our clients, we need to better connect business and technology and develop new solutions in an agile way through fully empowered teams. The agile transformation is essential for every part of our organization. In 2022, we accelerated *Agile@UBS*, a unified approach to agile ways of working, which now includes approximately 5,000 colleagues based in Switzerland.

- **Refer to “Clients” and “Employees” in the “How we create value for our stakeholders” section and to “Our focus on technology” in the “Our strategy” section of this report for more information about innovation and digitalization**

In 2022, we continued to support our clients in the transition to a low-carbon economy. For example, we introduced two new products: *UBS Mortgage Energy* for our private clients and *UBS Loan Energy* for income-producing real estate, both providing preferential conditions for energy-efficient buildings. Furthermore, we entered into two partnerships with Swiss start-ups to remove greenhouse gas emissions from the atmosphere.

- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about sustainability-related topics**

We collaborate with other companies to better satisfy our clients’ diverse needs. For example, in 2022, we further expanded our strategic partnership with Baloise. We both increased our stakes in the digital homeowner platform *Houzy*, which offers prospective and existing homeowners advice about financing, insurance and other property planning and management matters, and *Brixel*, which provides our clients real estate sales advice and services.

Our operations and our competitors

We operate primarily in our Swiss home market. With our Personal Banking and Corporate & Institutional Clients business units, we are organized into 10 regions, covering distinct Swiss economic areas. We operate a multi-channel approach, and we are constantly developing our digital and remote channels.

In Personal Banking, our main competitors are Raiffeisen, the cantonal banks, Credit Suisse, PostFinance, and other regional and local Swiss banks; we also face competition from international neobanks and other national digital market participants. Areas of competition are basic banking services, mortgages, and foreign exchange, as well as investment mandates and funds.

In Corporate & Institutional Clients, the cantonal banks, Credit Suisse and globally active foreign banks are our main competitors. We compete in basic banking services, cash management, trade and export finance, asset servicing, investment advice for institutional clients, corporate finance and lending, and cash and securities transactions for banks. We also support the international business activities of our Swiss corporate clients through local hubs in New York, Frankfurt, Singapore and the Hong Kong SAR. No other Swiss bank offers its corporate clients local banking capabilities abroad.

2022 selected highlights

As of or for the year ended 31 December 2022



1 "Clients" refers to the number of unique business relationships operated by Personal Banking. **2** "Clients" refers to the number of unique business relationships or legal entities operated by Corporate & Institutional Clients.

Asset Management

Asset Management is a global, large-scale and diversified asset manager, with USD 1.1trn in invested assets. We offer investment capabilities and styles across all major traditional and alternative asset classes, as well as advisory support to institutions, wholesale intermediaries and our Global Wealth Management clients.

Our strategy is focused on capitalizing on the areas where we have a leading position and differentiated capabilities – including sustainability, alternatives, indexed customization, and key markets in Asia Pacific – in order to drive further profitable growth.

Organizational changes

In April 2022, we completed the sale of our 49% shareholding in our Japanese real estate joint venture, Mitsubishi Corp.-UBS Realty Inc., to KKR & Co.

How we do business

We offer clients a wide range of investment products and services in different asset classes, in the form of segregated, pooled or advisory mandates, as well as registered investment funds in various jurisdictions. Our traditional and alternative capabilities include equities, fixed income, hedge funds (single- and multi-manager), real estate and private markets, and indexed and alternative beta strategies, including exchange-traded funds (ETFs), as well as sustainable- and impact-investing products and solutions.

Our Investment Solutions business draws on the breadth of our capabilities to offer: asset allocation and currency investment strategies across the risk–return spectrum; customized multi-asset solutions; and advisory and fiduciary services.

Sustainable and impact investing remains a key area, as clients increasingly seek solutions that combine their investment goals with sustainability objectives. We are continuing the expansion of our capabilities through: product and service innovation; dedicated research; integrating environmental, social and governance risk factors into our investment processes by leveraging our proprietary analytics; and active corporate engagement.

During 2022, our Real Estate & Private Markets business launched a number of new innovative strategies, including UK Life Sciences and Cold Storage, and again achieved strong results in the latest GRESB Assessments,¹ with 100% of our submitted strategies (representing 96% of Real Estate & Private Markets' direct pooled real estate and infrastructure strategies) achieving four- or five-star ratings.

We also continue to develop our award-winning² indexed businesses globally, including ETFs in Europe, Switzerland and Asia. To meet increasing client demand, we have focused on sustainable investing across our product range and provide customized solutions. Aligned with our purpose and strength in building partnerships, in 2022, we launched the UBS Global Equity Climate Transition Fund, in partnership with Aon, and the UBS Life Global Equity Sustainable Transition Fund, in collaboration with the Essex Pension Fund and Hymans Robertson. These funds provide investors with the ability to mitigate climate-related investment risks while also aiming to make a positive social impact aligned with specific United Nations Sustainable Development Goals.

Stewardship is a fundamental element of our sustainability strategy, and we are firmly committed to engaging with companies to support them on their transition journey. During 2022, we extended our Climate Engagement Program to include more industry sectors and built out our research to further extend the program to include natural capital. We also launched our new Social Engagement Program, with a focus on human and labor rights, diversity, equity and inclusion, and health, to enable us to provide clients with products that meet their criteria in these areas as well.

As a founding member of the Net Zero Asset Managers³ initiative, we are working on the foundational pillars required to deliver on our net-zero interim target, committing to align 20% of total assets under management to achieve a 50% carbon emissions reduction by 2030. In parallel, we are continuing to work with our clients, standard setters and industry bodies to help develop the new methodologies, tools and data needed by investors to mitigate risks and capture opportunities.

- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about sustainability matters**

To support our growth, we are focused on disciplined execution of our operational excellence initiatives. This includes further automation, simplification, process optimization and offshoring or nearshoring of selected activities, complemented by continued enhancements to our platform and development of our analytics and data capabilities.

We have also continued our joint efforts with the other business divisions, enabling our teams to draw on the best ideas, solutions and capabilities from across the firm in order to deliver high-quality investment performance and experiences for our clients. For example, we launched a separately managed accounts (SMA) initiative in 2020 with Global Wealth Management in the US. We continued to expand our SMA offering throughout 2022, including the launch of new index SMA portfolios offering personalized tax management, and also a sustainable investing overlay enabling clients to select from six major themes, including climate change, pollution and governance. The initiative generated USD 21bn in net new money inflows in 2022, bringing total invested assets from this initiative to USD 125bn.

- **Refer to “Delivering one ecosystem” in this section for examples of the joint efforts of the business divisions**

Our operations and our competitors

Our business division is organized into five areas: Client Coverage; Investments; Real Estate & Private Markets; Products; and the COO area. We cover the main asset management markets globally, and have a local presence in 23 locations across four regions: the Americas; Asia Pacific; EMEA; and Switzerland. We have nine main hubs: Chicago; the Hong Kong SAR; London; New York; Shanghai; Singapore; Sydney; Tokyo; and Zurich.

Geographically, we are building on our extensive and long-standing presence in the Asia Pacific region, including China, where we continue to invest in our products and presence, both on- and off-shore.

In the rapidly evolving and attractive wholesale segment, we aim to further expand our market share through a combination of measures: a continued increase in the share of clients’ business; expansion of our strategic partnerships with distributors; the building-out of our client service and product shelf offerings; and the launch of new white-labeling and portfolio implementation capabilities.

- **Refer to “Clients” in the “How we create value for our stakeholders” section and to “Our focus on technology” in the “Our strategy” section of this report for more information about innovation and digitalization**

Our main competitors are global firms with wide-ranging capabilities and distribution channels, such as AllianceBernstein, Allianz Asset Management, Amundi, BlackRock, Credit Suisse Asset Management, DWS, Franklin Templeton, Invesco, JPMorgan Asset Management, Morgan Stanley Investment Management, Schroders, SSGA Funds Management and T. Rowe Price, as well as firms with a specific market or asset-class focus.

2022 selected highlights

As of or for the year ended 31 December 2022



USD 1.1trn
total invested assets



**Passive Manager
of the Year**
(Insurance Asset
Management Awards, 2022)



USD 21bn
net new money from the
SMA¹ initiative



USD 25bn
total net new money



USD 157bn
assets invested in
alternatives²



USD 178bn
in sustainability focus and
impact invested assets

¹ Separately managed accounts. ² Hedge fund businesses, real estate and private markets.

¹ GRESB is an independent organization providing validated ESG performance data and peer benchmarks.

² Passive Manager of the Year 2022, Insurance Asset Management Awards; ETF Provider of the Year, European Pensions Awards; UBS MSCI UK IMI SRI ETF, Winner: Ethical / Sustainable – Passive, AJ Bell FIT Awards; ETP Award 2022, Best Provider of Sustainable ETFs; and ranked fifth largest ETF provider in Europe as of December 2022 (source: *ETFBook.com*).

³ netzeroassetmanagers.org

Investment Bank

The Investment Bank provides services to institutional, corporate and wealth management clients, helping them raise capital, invest and manage risks, while targeting attractive and sustainable risk-adjusted returns for shareholders. Our traditional strengths are in equities, foreign exchange, research, advisory services and capital markets, complemented by a focused rates and credit platform. We use our data-driven research and technology capabilities to help clients adapt to evolving market structures and changes in regulatory, technological, economic and competitive landscapes.

Aiming to deliver market-leading solutions by using our intellectual capital and electronic platforms, we work closely with Global Wealth Management, Personal & Corporate Banking and Asset Management to bring the best of UBS's capabilities to our clients. We do so with a disciplined approach to balance sheet deployment and costs.

Our priority is providing high-quality execution and seamless client service, through an integrated, solutions-led approach, with disciplined growth in the capital-light advisory and execution businesses, while accelerating our digital transformation. In Global Banking, we position ourselves as trusted advisors via our client coverage and ability to provide access to the wider suite of UBS's capabilities.

Organizational changes

In January 2022, Global Research and the Strategic Insights teams, formerly part of Evidence Lab Innovations, were integrated into the Investment Bank, as Investment Bank Research. With this new setup, we intend to better align our research coverage with the needs of our clients, while continuing to provide research and analytical services across the firm.

In April 2022, we created Global Family & Institutional Wealth (GFIW), a cross-divisional offering that leverages capabilities from the Investment Bank and client coverage from Global Wealth Management to address the execution, investment, risk management, financing and banking needs of family offices and their corporate entities, as well as entrepreneurs.

How we do business

Our business division consists of two areas: Global Banking and Global Markets, which are supported by Investment Bank Research. Our global coverage model utilizes our international industry expertise and product capabilities to meet clients' emerging needs.

Our Global Banking business advises clients on strategic business opportunities, such as mergers, acquisitions and related strategic matters, and helps them raise capital, both on public and private markets, to fund their activities.

Our Global Markets business enables clients to buy, sell and finance securities on capital markets worldwide, and to manage their risks and liquidity. We distribute, trade, finance and clear cash equities and equity-linked products, as well as structuring, originating and distributing new equity and equity-linked issues. From origination and distribution to managing risk and providing liquidity in foreign exchange, rates, credit and precious metals, we help clients to realize their financial goals. We provide flexible, innovative and bespoke access to solutions, from market and insight tools to trading strategies and execution.

Our Investment Bank Research business continues to publish research based on primary data to concentrate on data-driven outcomes and offers clients differentiated content about major financial markets and securities around the globe, with analysts based in 22 countries and with coverage of more than 3,000 stocks in 49 different countries. The Strategic Insights team provides timely and relevant information and insights to help clients quickly make decisions regarding their most important questions.

We seek to develop new products and solutions consistent with our capital-efficient business model, typically related to new technologies or changing market standards.

- **Refer to “Clients” in the “How we create value for our stakeholders” section and to “Our focus on technology” in the “Our strategy” section of this report for more information about innovation and digitalization**

The Investment Bank is focused on meeting clients’ needs, including those with respect to environmental, social and governance (ESG) considerations and sustainable finance, helping to reshape business models and investment opportunities and to develop sustainable finance products and solutions.

In Global Markets, we develop products and solutions designed to meet clients’ specific and increasingly detailed ESG objectives, such as thematic portfolio and investment solutions. We have also developed products related to carbon, such as emissions futures, and we joined *Carbonplace* as a founding member. *Carbonplace* is a platform that seeks to build infrastructure to scale voluntary carbon markets, with the aim of enabling firms such as UBS to offer clients the ability to buy, sell, hold and retire voluntary carbon credits.

Following the formation of the Global ESG Advisory team within Global Banking in 2021, in 2022, we provided strategic advisory and capital-raising services by specifically recognizing the structural shift in investor preferences toward ESG investment opportunities. To do so, we built our capabilities to assess a firm’s sustainability profile and to link such profiles to ESG investor demand. During 2022, we facilitated USD 48bn of green, social, sustainability and sustainability-linked (GSSS) bonds financing through 77 bond deals for our clients, including corporate clients, financial firms and sovereign issuers. UBS has a market-leading share of the Swiss franc GSSS bond market (Bloomberg, 2022), supporting domestic issuers and bringing international names to the Swiss market.

Our independent ESG research team collaborates with UBS sector analysts and *UBS Evidence Lab* primary research experts. The ESG research team works to identify touchpoints between markets, society and the environment, and to respond to ESG issues as they move onto investors’ agenda. By December 2022, the ESG team had published more than 90 *ESG Sector Radar* reports, which assessed the impact of ESG factors at the sector level (up from about 30 in 2021).

In 2022, we launched our *ESG Company Radar* research reports (more than 30 published by December 2022), which assess the impact of ESG factors at company level, and we have seen a very positive client response to those reports. Other types of ESG content include thematic and cross-sectoral collaborations, *ESG Keys* (which covers sustainable investing topics), and an increasing number of regional perspectives from our expanded ESG team, which works out of our offices in London, New York, the Hong Kong SAR, Tokyo and Sydney.

As part of our efforts to enhance governance and oversight, the Sustainable Investment Review Group was launched in June 2022 with the responsibility for reviewing ESG products within Global Markets. The Investment Bank Sustainable Finance Guidelines were established in 2022 to set out minimum criteria for ESG products, which are to be applied to new products. In addition, as part of the Group’s net-zero commitments, the Investment Bank has developed emission targets for 2030 for its lending business.

- **Refer to the “Environment” section of our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about the Investment Bank’s targets for its lending business**

Our digital strategy harnesses technology to provide access to a wide range of sources of global liquidity and differentiated content. The Investment Bank strives to be the digital investment bank of the future, with innovation-led businesses driving efficiencies and solutions. We aim to develop new products and solutions consistent with our capital-efficient business model, which are most often related to new technologies or changing market standards.

In 2021, we announced the creation of a single *Digital Platforms* business area within the Investment Bank, utilizing digital competencies to benefit all products and maximizing the return on our technology spend in close partnership with our Chief Digital and Information Office. *Digital Platforms* combines product expertise with deep technical know-how, aiming to reduce the number of systems and increase automation, maximizing client impact, revenue and digital adoption. *Digital Platforms* was an early adopter of *Agile@UBS*, an evolution of the historically close collaboration with our Chief Digital and Information Office, creating long-lived teams that learn and continuously improve, which in turn attracts the best talent.

Our ambition is to have a simplified and modern technology landscape that is secure and stable, where we re-use more of everything and where the platforms work together to drive progress toward our overall strategic imperatives.

- **Refer to “Clients” in the “How we create value for our stakeholders” section and to “Our focus on technology” in the “Our strategy” section of this report for more information about innovation and digitalization**

Joint efforts between the Investment Bank and the other business divisions (for example, our work with Global Wealth Management on our new GFIW offering) and, externally, strategic partnerships (for example, UBS BB jointly with Banco do Brasil, focused on Latin America) continue to be key strategic priorities. Partnership with Global Wealth Management and Asset Management enables us to provide clients with broad access to financing, global capital markets and portfolio solutions. We expect these initiatives to continue to lead to growth by delivering global products to each region, leveraging our global connectivity across borders and sharing and strengthening our best client relationships.

- **Refer to “Delivering one ecosystem” in this section for examples of the joint efforts of the business divisions**

Our operations and our competitors

Our two business areas, Global Banking and Global Markets, are organized globally by product. Our business is regionally diversified, with a presence in more than 30 countries. We cover the main investment banking markets globally, and have major financial hubs across four regions: the Americas; Asia Pacific; EMEA; and Switzerland.

Our global reach gives attractive options for growth. In the Americas, the largest investment banking fee pool globally, we continue to focus on increasing market share in our core Global Banking and Global Markets businesses. In Asia Pacific, opportunities arise mainly from expected market internationalization and growth in China, where we plan to grow by strengthening our presence, both onshore and offshore. In EMEA, we plan to leverage our strong base and brand recognition even further.

Competing firms operate in many of our markets, but our strategy differentiates us, with our focus on leadership in the areas where we have chosen to compete and a business model that leverages talent and technology rather than balance sheet. Our main competitors are the major global investment banks (e.g., Morgan Stanley, Credit Suisse and Goldman Sachs) and corporate investment banks (e.g., Bank of America, Barclays, Citigroup, BNP Paribas, Deutsche Bank and JPMorgan Chase). We also compete with boutique investment banks and fintech firms in certain regions and products.

2022 selected highlights

As of or for the year ended 31 December 2022



15% return on attributed equity



The Best Investment Bank
in Asia Pacific and Australia
(FinanceAsia, 2022)



GFIW launched in April 2022



#1 among international banks in Asia Pacific equity capital markets¹



Completed formation of our Global ESG Advisory team



USD 3.7bn of Derivatives & Solutions revenues, 7% growth

¹ Dealogic, 2022.

Group Functions

Group Functions provides services to the Group, focusing on effectiveness, risk mitigation and efficiency. Group Functions also includes the Non-core and Legacy Portfolio unit.

How we are organized

Group Functions

Group Functions is made up of the following major areas: Group Services (which consists of Chief Digital and Information Office, Communications & Branding, Compliance, Finance, Group Sustainability and Impact, Human Resources, Group Legal, Regulatory & Governance, and Risk Control), Group Treasury and Non-core and Legacy Portfolio.

In recent years, we have aligned support functions and business divisions. The vast majority of such functions are fully aligned or shared among the business divisions, where they have full management responsibility. By keeping the activities of the businesses and support functions close, we improve efficiency and create a working environment built on accountability and collaboration.

Certain activities are retained centrally, where not directly related to the businesses, such as: Non-core and Legacy Portfolio; a small residual set of activities in Group Treasury; and certain other costs that are mainly related to deferred tax assets and costs relating to our legal entity transformation program.

Group Treasury

Group Treasury manages balance sheet structural risk (e.g., interest rate, structural foreign exchange and collateral risks) as well as the risks associated with our liquidity, capital and funding portfolios. Group Treasury serves all four business divisions, and its risk management is integrated into the Group risk governance framework.

Non-core and Legacy Portfolio

Non-core and Legacy Portfolio consists of residual trades from businesses exited by the Investment Bank, mainly in 2012. Positions are typically left to run to contractual maturity, although trades are terminated early where such action is economically prudent, and the portfolio continues to be actively hedged. The portfolio also includes positions relating to legal matters arising from businesses transferred to it at the time of its formation.

- **Refer to “Note 17 Provisions and contingent liabilities” in the “Consolidated financial statements” section of this report for more information about litigation, regulatory and similar matters**

Our environment

Market climate

Global economic developments in 2022¹

2022 was a challenging year for the global economy and most markets. After rebounding in 2021 from the COVID-19 pandemic, economic momentum slowed in 2022. The Russia–Ukraine war contributed to higher commodity prices, adding to rising inflation, which reached multi-decade highs in most major economies. This led to the fastest pace of monetary tightening by many leading central banks since the 1980s.

Against this backdrop, global GDP growth decelerated to 3.3% in 2022, from 6.5% in 2021, with headwinds continuing to mount in 2023. US GDP growth slowed to 2.1% in 2022, from 5.9% in 2021, as the Federal Reserve raised interest rates. Reduced energy supplies from Russia and tighter monetary policy from the European Central Bank added to headwinds for the Eurozone economy, where growth was down to 3.5% in 2022, from 5.3% in 2021. Weakness in the Eurozone contributed to a slowdown in Switzerland. Swiss GDP growth was down to 2.0% in 2022, from 4.2% in 2021. UK GDP grew by 4.0% in 2022, down from 7.6% in 2021, with momentum undermined by higher inflation, interest rate increases by the Bank of England (the BoE) and weaker global demand.

China’s economy grew by 3.0% in 2022, down from 8.4% in 2021, reflecting an economic drag from the government’s zero-COVID policy, along with a downturn in the nation’s real estate sector. Other leading Asian economies slowed less markedly, with GDP growth in India of 7.0% in 2022, down from 8.7% in 2021. South Korea’s GDP grew by 2.6% in 2022, down from 4.1% in 2021.

Inflation remained elevated in 2022. Exceptionally strong demand for goods emerged as economies reopened, overwhelming supply, and creating inflation. Just as this pressure faded, the Russia–Ukraine war led to a rise in energy and food prices, further boosting inflation. High inflation affected many major economies, averaging 8.5% globally in 2022. US inflation reached a high in June 2022 of 9.1% year on year, having risen at the fastest pace since 1982. However, inflation remained relatively muted in China, at 3%, and Japan, at 1.1%, with neither country experiencing an exceptional post-pandemic surge in demand. Inflation in Switzerland was also more muted, at 2% for 2022, due to a less-pronounced profit margin expansion than elsewhere.

Equity and bond markets fell in tandem in 2022, impacted by the combination of high inflation, monetary tightening and slowing growth. In 2022, the MSCI USA index fell by 19.8% and the MSCI Eurozone, the MSCI Switzerland and the MSCI China indices fell by 12.5%, by 17.1% and by 20.7% respectively (in local currency terms). However, more defensive markets outperformed, such as the MSCI UK index, which increased by 7.1%. Globally, value stocks proved more resilient, with the MSCI World Value index down 6.5%, compared with a 29.2% decrease in the MSCI World Growth index.

Bond markets also experienced negative returns, amid headwinds from higher inflation and central bank tightening. The Bloomberg Global Aggregate Bond index decreased by 16.2% in 2022. The yield on 10-year US Treasuries ended the year at 3.9%, up from 1.5% at the end of 2021. The yield on the 10-year Swiss government bonds increased from –0.2% at the start of 2022 to 1.6% by year-end, and the yield on 10-year German Bunds increased to 2.6%, up from –0.2% at the end of 2021.

Economic and market outlook for 2023

We expect 2023 to be a year of inflections, as investors try to identify turning points for inflation, interest rates, economic growth and financial markets against a complex geopolitical backdrop.

We expect inflation to be lower at the end of 2023 than it was at the end of 2022, as tighter monetary policy slows demand and squeezes profit margins. In addition, a repeat of the 2022 commodity price surge is, in our view, unlikely. Although future economic data will be key, and recent data suggests the decline in inflation has been slower than forecast in some economies, we expect the Federal Reserve, the European Central Bank, the Swiss National Bank, and the BoE to conduct the final interest rate increases of this cycle in 2023.

We expect the impact of higher interest rates to weigh on economic growth and earnings. Economic growth should hit bottom later in the year, if, as we expect, financial conditions start to ease. For 2023 as a whole, we expect the US economy to grow by 0.8%, with the Eurozone expanding 0.8% and Switzerland 0.4%. We forecast a contraction of 0.4% in UK GDP, with inflation still high, given the prospect of tighter fiscal and monetary policy. The relaxation of China's COVID-19 restrictions means a rebound of the Chinese economy is likely over the course of 2023. We expect China's GDP to expand 4.9% in 2023.

Geopolitical events look likely to remain a concern for investors. The Russia–Ukraine war poses energy and security threats to Europe and fosters the risk of a broader war. US–China tensions are unlikely to recede, given Beijing's focus on self-sufficiency, the Biden administration's moves to restrict trade on security grounds, and the potential for further discord over Taiwan. In addition, we are cognizant of an elevated risk of political tensions within and across countries, as well as their impact on society and financial markets.

¹ Comparative figures as of 28 February 2023.

Industry trends

Although our industry has been heavily affected by various regulatory developments over the past decade, technological transformation and changing client expectations are further emerging as key drivers of change today, increasingly affecting the competitive landscape, as well as our products, service models and operations. In parallel, our industry continues to be materially driven by changes in financial markets and macroeconomic and geopolitical conditions.

Digitalization

While the technological maturity of the financial services sector increased greatly throughout the COVID-19 pandemic, digitalization in our industry is still developing at a rapid pace. The world is faster, more digital and more data-driven than ever before, with clients increasingly demanding even more seamless, personalized digital products and services tailored to their needs. Following the COVID-19 pandemic, regional and demographic differences in the acceptance and use of digital technologies are narrowing, thus continuing a high rate of digital adoption across all client segments. As a result, we see a gradual shift from digitalizing and automating existing processes to digital-as-default solutions, while still allowing for human interaction, a component that continues to be an important competitive advantage.

Digital communication, with clients and employees alike, has established new remote ways of working, enabling financial services providers to attract an even wider array of talent than before. The digitalization of the financial services sector has led to a structural shift in the workforce: more and better engineers are required to keep banks at the forefront of technology, thus putting them into direct competition with technology companies beyond the borders of the financial sector.

Continuous investment in technology is driving automation and simplification of labor-intensive processes, improving banks' operational efficiency and freeing up resources to focus on client needs. Decision-making is becoming increasingly data-driven, with advanced analytics and artificial intelligence (AI) enabling banks to address client needs in an even more targeted manner. In a consistently connected, open, and location-independent financial services ecosystem, the focus lies on adopting open-source technology, including cloud-native and modular architecture, to drive innovation and open exchange.

An open-finance environment combined with a shift in business models from in-person to digital channels bears the risk of increased digital vulnerability. Clients and other stakeholders are demanding ethical and responsible data gathering, storage and usage, making the protection of the firm's data a continued priority and focus. We also place great importance on managing the risk of cyberattacks.

Decentralized finance applications, including digital cash solutions, are gradually being adopted by the banking industry. Nascent technologies, such as distributed ledger technology, are expected to mature over the coming years and may reshape our industry. They provide opportunities to overcome friction within the existing financial system, increase banking efficiency, broaden access to underserved communities and make previously unviable products or services available to the financial services sector. They also further enable early-stage concepts, such as Web 3.0 and the metaverse, which could lead to an enhanced digital user experience.

Sustainability

The evolution of corporate business models, the growth in investors factoring the transition to a low-carbon economy and other sustainability themes into investment risk-and-return expectations, the ongoing shifts in societal values, and greater regulation are all increasing client demand for sustainable investing strategies.

In 2022, due to the challenging environment for investments, global open-ended fund and exchange-traded fund (ETF) total net assets decreased by 19%.¹ Despite this downturn, the industry overall saw continued inflows into sustainable investing products, while funds and ETFs that were not specifically categorized as sustainable faced outflows throughout most of 2022.¹

Our view is that the long-term growth trajectory for sustainable funds and ETFs plays to UBS's strengths, as we have been at the forefront of sustainable finance for over two decades, making us well placed to build on our offering and continue to develop the innovative products and solutions our institutional and private clients need.

- **Refer to our Sustainability Report 2022, available under "Annual reporting" at ubs.com/investors, for more information about sustainability matters**

Client expectations

As technology progresses, clients more rapidly redefine the way they live, work and interact with others. This is reshaping clients' expectations toward financial services firms, as their reference points are increasingly influenced by experiences with companies outside our sector, where technology-supported and data-driven solutions are progressively enabling a more personalized, relevant, on-time and seamless client experience. These services often focus on convenience, flexibility and personalization, and drive toward holistically addressing clients' needs and facilitating community building. Therefore, our franchise needs to evolve, as clients measure us against new standards. While the global pandemic further sharpened our industry's focus on digital-led solutions, recent geopolitical, macroeconomic and societal shifts have highlighted values such as security, stability and a credible plan toward a sustainable future. Additionally, many clients not only expect net-zero commitments from their financial services provider of choice, but they are also increasingly demanding investment, financing and advisory products and services that fit their own sustainability preferences and ambitions.

Consolidation

Many regions and businesses in the financial services sector are still highly fragmented. We expect further consolidation, with the key drivers being ongoing margin pressure, a push for cost efficiencies and increasing scale advantages resulting from fixed technology costs and regulatory requirements. Many players in financial services continue to seek increasing exposure and access to regions with attractive growth profiles, such as Asia and other emerging markets, through local acquisitions or partnerships, as well as acquiring new capabilities addressing changes in market dynamics and overall client demands. The increased focus on core capabilities and geographical footprint, as well as the ongoing simplification of business models to reduce operational and compliance risks, is likely to drive further disposals of non-core businesses and assets. While banks already face increasing challenges from digitalization needs and intensified competition, tightening macroeconomic conditions across major economies may create further pressure if a recessionary environment cannot be avoided.

New competitors

Our competitive environment is evolving. In addition to traditional competitors in the asset-gathering businesses, new entrants are targeting selected parts of the value chain. However, we have not yet seen a fundamental unbundling of the value chain and client relationships, which might ultimately result in the further disintermediation of banks by new competitors. Over the long term, we believe large platform companies entering the financial services sector could pose a larger competitive threat, given their strong client franchises and access to client data, if they decide to broaden the scope of their services. While fintech firms have gained greater momentum during the COVID-19 pandemic, recent macroeconomic developments have slowed down the trend, as funding appetite and valuations have trended downward. Although we expect our industry to recover in the near term, we do not expect a material disruption of our asset-gathering businesses. The trend for forging partnerships between new entrants and incumbent banks is continuing, as technology and innovation help banks overcome new challenges.

Regulation

In 2022, regulators further progressed in their policy developments with a focus on regulations around digital innovation and sustainable finance along with finalizing and implementing the remaining Basel III requirements.

Regulators increased their focus on AI, data and, particularly, digital assets, as a result of market turbulence. In the area of digital assets, the attention by regulators was on stablecoins, crypto assets and the prudential treatment of banks' exposures to digital assets, with recent efforts by supranational standard setters aiming to coordinate relevant national regulations. Central banks also continued to work on central bank digital currencies, which aim to provide new digital payment instruments that would be a direct liability of the central bank.

Sustainable finance and climate-related risks continued to be a key focus of policymakers in 2022, where we noted significant activity, particularly in the areas of disclosures regarding the impact of climate-related risks and corporate sustainability actions, classification or taxonomies of sustainability-related efforts and activities, and risk management of climate-related financial risks. The multitude of developments at the jurisdictional level has the potential to create a fragmented policy landscape. These developments add to the rapidly evolving societal expectations toward financial institutions.

The national implementation of the remaining Basel III elements continues to be another important focus area. The authorities in Switzerland and the UK launched consultations on their approaches in 2022 and Switzerland changed the expected date on which the final Basel III guidelines are to enter into force, from 1 July 2024 to 1 January 2025. The EU authorities continued with the parliamentary debates. We expect the US authorities also to start their consultation process in the first half of 2023. Although the timing of the implementation seems broadly aligned across Switzerland, the EU and the UK at this stage, we still see a significant risk of divergence regarding the content of the provisions.

In addition, regulatory authorities continued to refine existing regulations, including the finalization of the Swiss too-big-to-fail framework and revision of the EU anti-money laundering framework, as well as efforts to enhance operational resilience. Following Brexit, the UK started a holistic review of its regulatory framework for financial services, while both the EU and the UK are updating their wholesale markets and investor protection rules. Furthermore, the focus of regulatory authorities is also increasingly moving toward corporate responsibility, diversity and inclusion. Finally, digitalization and shifts in the macroeconomic and interest rate environment increased the focus on operational resilience and financial stability risks, including the assessment of existing policy gaps relating to the non-bank financial intermediation sector.

Many of these developments are taking place in an environment characterized by significant political uncertainties, including increasing geopolitical tensions and the Russia-Ukraine war which resulted in the adoption of unprecedented sanctions packages introduced by various jurisdictions against Russia and Belarus. This led to significant implementation efforts that were closely coordinated between authorities to ensure consistency in interpretation and implementation. Political uncertainties and geopolitical tensions are posing additional challenges to the provision of cross-border financial services.

We believe the continued adaptations made to our business model and our proactive management of regulatory change put us in a strong position to absorb upcoming changes to the regulatory environment.

- **Refer to the “Regulatory and legal developments” and “Capital, liquidity and funding, and balance sheet” sections of this report for more information**

Wealth creation²

2022 began with the global high net worth individual population and financial wealth both at record highs, with surging financial markets and recovering economies enabling the global high net worth individual population and financial wealth to increase 7.8% and 8.0%, respectively, in 2021.

Since then, falling equity and bond markets, slowing economic growth, and US dollar strength, mean that global wealth growth in 2022 was likely substantially lower, or negative, although we continue to see the longer-term outlook for wealth creation and financial asset appreciation as positive.

As of the end of 2021, 46% of global financial wealth was concentrated in North America, followed by Asia (26%) and Europe (21%).³

By segment, approximately one-third of global high net worth individual wealth is held by individuals with wealth in excess of USD 30m, 23% by individuals with wealth ranging from USD 5m to USD 30m and the remaining 43% is within the wealth segment between USD 1m and USD 5m.

Wealth is being created at a faster rate for certain key client groups, including female clients and entrepreneurs. We also see significant wealth transition to the next generation over the coming decade.

Wealth transfer

Demographic and socioeconomic developments continue to generate shifts in wealth. Over the next few decades, more than USD 30trn of wealth will be passed between generations. The majority will move from the silent generation and older baby boomers to younger baby boomers and Gen X (jointly encompassing individuals currently between the ages of 42 and 65).²

As a group, these “next gens” are likely to have a longer investment horizon, a greater appetite for risk, often combined with a desire to use wealth to create a positive societal impact alongside investment returns. Meanwhile, as shown in the Wealth-X report “World Ultra Wealth Report 2022,” the proportion of ultra-wealthy⁴ women is gradually rising, reflecting changing cultural attitudes and growth in female entrepreneurship, as well as wealth transfers between generations.

We are responding to the evolving wealth landscape with a framework that addresses all aspects of our clients’ financial lives, called *UBS Wealth Way*. It begins with discovery questions and a conversation with clients about what is most important to them. We help clients organize their financial life along three key strategies: *Liquidity* to help provide cash flow for short-term expenses; *Longevity* for long-term needs; and *Legacy* for needs that go beyond their own and help improve the lives of others, a key part of wealth transfer planning.

Investing in an inflationary world

As a result of the major macroeconomic shocks in 2022, investors are facing a very different landscape to the one seen over the past decade, with significant market volatility, higher interest rates and inflation levels not seen for a generation. This environment has created opportunities in the bond market, and investors are once again being rewarded for taking risks in fixed income. Investors also continue to diversify into illiquid alternatives (including private equity, property, hedge funds and infrastructure) that can deliver compelling longer-term risk-adjusted returns, while also looking for low-cost, efficient passive strategies across liquid markets. The breadth of our investment expertise and capabilities enables us to find the right solutions for clients across asset classes and regions.

¹ Morningstar Direct, as of or for the year ended 31 December 2022. Encompasses worldwide open-ended funds and exchange-traded funds, excluding money market funds. Sustainable funds are identified on the basis of Morningstar’s Sustainable-Investment framework. © Morningstar 2023. All rights reserved. The information contained herein: (1) is proprietary to Morningstar and / or its content providers; (2) may not be copied, adapted or distributed; (3) is not warranted to be accurate, complete or timely; and (4) does not constitute advice of any kind, whether investment, tax, legal or otherwise. User is solely responsible for ensuring that it complies with all laws, regulations and restrictions applicable to it. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information, except where such damages or losses cannot be limited or excluded by law in your jurisdiction. Past performance is no guarantee of future results.

² All the figures are from the Capgemini World Wealth Report 2022 unless otherwise stated and refer to the 2021 financial year. The Capgemini World Wealth Report 2022 segments wealth as follows: those with wealth of greater than USD 30m are classified as ultra high net worth individuals; USD 1m to USD 30m for high net worth individuals.

³ Based on BCG Global Wealth Report 2022, which refers to the 2021 financial year. Wealth concentration is based on financial assets by regions and excludes real assets and liabilities.

⁴ World Ultra Wealth Report 2022, Altrata. The report defines those with wealth of greater than USD 30m as ultra high net worth individuals (also referred to as the “ultra wealthy”).

How we create value for our stakeholders

<u>Stakeholder group</u>	<u>Stakeholder needs: what our stakeholders expect from us</u>	<u>Value proposition: how we create value for our stakeholders</u>	<u>Key topics discussed: what was important to our stakeholders in 2022</u>	<u>Stakeholder engagement: how we engage with our stakeholders</u>
Clients	<p>Advice on a broad range of products and services from trusted advisors, addressing increasingly complex needs</p> <p>A mix of personal interaction with our advisors in combination with digital and remote services (convenient, seamless digital banking)</p> <p>High-quality solutions and the highest standards in terms of asset safety, data and information security, confidentiality, and privacy</p> <p>A combination of global reach and local capabilities targeting positive investment outcomes</p> <p>Competitively priced products and services, risk management, and the provision of liquidity</p>	<p>Delivering tailored advice and customized solutions, using our intellectual capital and digital platforms</p> <p>Developing new products, solutions and strategic partnerships in response to clients' evolving needs</p> <p>Providing access to global capital markets and bespoke financing solutions</p> <p>Meeting increasing sustainable investment and private markets demand from clients</p> <p>Implementing cross-divisional offering with fully aligned front-to-back setup</p>	<p>Investing in times of uncertainty: high inflation, market volatility, rising interest rates, slowing economic growth and increasing geopolitical tensions</p> <p>Holistic goal-based financial planning</p> <p>Sustainable finance and investing opportunities</p> <p>Data privacy and security</p> <p>Products and services, including those around digital banking</p>	<p>Personalized meetings</p> <p>A blend of virtual and in-person client events and conferences, including information about key developments and opportunities</p> <p>Client satisfaction surveys</p> <p>Increasing levels of digital interaction with clients</p> <p>Monitor client feedback and complaint handling</p>
Investors	<p>Disciplined execution of our strategy leading to attractive capital returns through dividends and share repurchases</p> <p>Comprehensive and clear disclosures on quantitative and qualitative data necessary to make informed investment decisions</p> <p>Recognizing and proactively addressing strategic opportunities and challenges</p>	<p>Executing our strategy with discipline and agility as the external environment evolves, while aiming to deliver cost- and capital-efficient growth</p> <p>Providing relevant, transparent, timely and reliable public disclosures</p>	<p>Strategic plans and targets, and execution against them</p> <p>Structural growth in and return potential of our businesses</p> <p>Cost efficiency and ability to generate positive operating leverage</p> <p>Ability to protect or grow profits in a higher-inflation and rising-interest-rate environment</p> <p>Incorporation of environmental, social and governance (ESG) factors into the business model, compensation and risk management</p>	<p>Financial reports, investor and analyst conference calls, and webcasts, as well as media updates about our performance or other disclosures</p> <p>General meetings of shareholders</p> <p>Investor and analyst meetings</p> <p>Digital interactions with investors as a result of COVID-19 pandemic restrictions and hybrid-working patterns in the industry, with limited impact on pre-pandemic meeting schedules and participation, given reliable virtual solutions; the 2022 Annual General Meeting was held virtually</p>

Employees	A world-class employer with the expertise and breadth of opportunity to empower successful careers	Hiring talented, diverse employees and investing in development, now and for the future	Living up to our purpose and culture, enabled by our three keys to success	Regular CEO and senior leadership communications and events, along with divisional, regional and functional sessions with employees
	A collaborative, engaging, inclusive and supportive workplace culture	Fair, effective people management and compensation policies and practices	Fair and equitable pay practices	Group-wide targeted surveys and other employee engagement activities
	An environment that provides a sense of belonging and opportunities to positively impact colleagues, clients, shareholders and society	Further strengthening our workplace culture to live up to our purpose, and providing a framework for employees to develop their careers	Focusing on impact and outcome in our performance management processes	Group Franchise Awards and the Kudos peer-to-peer recognition program
	Engaging work and career growth opportunities, including future-capabilities development, and rewards for performance and impact	Hybrid- and flexible-working arrangements, along with holistic support to empower employees and foster resilience	Hybrid-, flexible- and home-working arrangements	Health and well-being events and offerings, employee networks and volunteering opportunities, and hybrid- and flexible-working arrangements
	Comprehensive data analytics that enable leaders to make better and faster decisions to meet business needs	Building a diverse, equitable and inclusive workplace	Accelerating new ways of working, particularly through Agile@UBS	
Society	Facilitation of economic development that is sustainable for the planet and humankind	Promoting significant and lasting improvements to the well-being of communities in which we operate	Sustainable finance	Grant making and volunteering through strategic community partners
	Maximization of our positive effects and minimization of any negative effects on society and the environment	Taking an active role in the transition of our economy toward environmentally and socially sustainable solutions	Our climate strategy	Participation in forums and round tables, as well as industry-, sector-and topic-specific debates
	Proactive management of the environmental and societal impacts of our businesses	Advising clients to align their business models with ESG parameters and the United Nations Sustainable Development Goals	Our client and corporate philanthropy efforts	Dialogues with regulators and governments; interaction with NGOs
		Furthering the economic and social inclusion of those we support	Launch of our Ukraine and Pakistan Relief Funds	Support for COVID-19-related aid projects across our communities

Clients

Our clients are the heart of our business. We are committed to building and sustaining long-term relationships based on mutual respect, trust and integrity. Understanding our clients' needs and expectations enables us to best serve their interests and to create value for them, underpinned by our client promise that we aim to differentiate our service by delivering a client experience that is personalized, relevant, on-time and seamless.

Our clients and what matters most to them

There is no typical UBS client, but each of our clients expects outstanding advice and service, a range of choices, and an excellent client experience.

Global Wealth Management focuses on serving the unique and sophisticated needs of wealthy families and individuals. We give them access to outstanding advice, global service and investment opportunities, delivered by experts they can trust and based on the expertise and insights of our Chief Investment Office (the CIO). Using a holistic, goals-based approach to financial planning, we deliver a personalized wealth management experience, working closely with clients to help them realize their ambitions, and we make our wealth coverage more client-centric, digital and effective. Our client-facing advisors and the global teams supporting them focus on developing long-term client relationships, which often span generations. Clients look to us for expertise in helping them to grow, protect and transfer their wealth, as well as helping them make some of the most important decisions in their lives. From significant liquidity events to professional milestones and personal turning points, we aim to give clients the confidence to move forward and achieve their goals. Through extensive research into clients' preferences and goals, and broader analysis of investor sentiment globally, we constantly evolve our offerings to meet the shifting priorities of today's wealthy clients. This includes investing in digital capabilities and developing products to help clients fund their lifestyles and manage their cash flow, as well as offering guidance on how they can create a lasting and positive impact for their communities and the causes they care about most. We are the leading global wealth manager for clients interested in sustainable investing,¹ with a commitment to developing solutions that enable them to align their financial goals with their personal values.

- **Refer to “Global Wealth Management” in the “Our businesses” section of this report for more information about sustainable investment offerings**

Personal & Corporate Banking serves a total of approximately 2.6 million retail clients² and more than 100,000 corporate clients,³ companies ranging from start-ups to multi-nationals, including specialized entities, such as pension funds and insurers, real estate companies, commodity traders and banks. Our clients include more than 30% of Swiss households, more than 90% of the 250 largest Swiss corporations and more than 50% of midsize to large pension funds in Switzerland. They look for financial advice based on their needs at each stage of their individual or corporate journey. We aim to deliver outstanding advice to all via a multi-channel approach. Clients have access to digital banking, a wide network of branches and remote advice. These channels are designed to deliver a quality and convenient client experience with 24/7 availability, security and value for money, resulting in high levels of client satisfaction. Clients are also offered a broad range of products and services in all relevant areas: basic banking, investing, financing (including mortgages), retirement planning, cash management, trade and export finance, global custody, and company succession, among others.

In Asset Management, we manage relationships with institutional clients (including sovereign institutions, central banks, pension funds and insurers), wholesale intermediaries and Global Wealth Management and its clients. By building long-term, personalized relationships with our clients and partners, underpinned by disciplined execution, we aim to achieve a deep understanding of their needs and to earn their trust. We combine our global scale with the independent thinking of our distinct investment teams to utilize innovative ideas, drawing on the breadth and depth of our investment capabilities, across traditional and alternative, active and indexed, to deliver the solutions that clients need.

The Investment Bank provides corporate, institutional and wealth management clients with expert advice, financial solutions, deal execution and access to the world's capital markets. Our business model is specifically built around our clients and their needs. Corporate clients can access advisory services, debt and equity capital market solutions, and bespoke financing through our Global Banking business. Our Global Markets business focuses on helping institutional clients engage with local markets around the world, offering equities and equity-linked products, and foreign exchange, rates and credit products and services. Our differentiated content offering is underpinned by Investment Bank Research. The differentiated nature of our research provides access to insight-ready data sets for thousands of companies, and aims to give clients an informational edge. In 2022, our experts produced more than 40,000 research reports, attracting seven million reads.

We know the security and confidentiality of our clients' data is of utmost importance to them, as it is for UBS. That is why we put the highest priority on having comprehensive measures in place that are seeking to ensure client data confidentiality and integrity are maintained. We continually assess and improve our control environment to mitigate emerging cyber threats and meet expanding legal and regulatory expectations. Investments in our digital platforms preserve and improve our security standards, with a focus on giving clients secure access to their data via our digital channels and protecting that data from unauthorized access. Although the level of sophistication and the impact and volume of cyberattacks continue to grow worldwide, we are ever vigilant, maintaining a strong and agile cybersecurity and information security program to mitigate and manage cyber risk by providing robust, consistent, secure and resilient business processes.

Enhancing the client experience through innovation and digitalization

We streamline and simplify interactions with clients through front-to-back digitalization and innovation.

In Global Wealth Management, we develop and deploy digital tools that help deepen and enhance the relationships we have built with our clients, a factor that differentiates UBS. Clients expect the convenience and speed that technology offers but, at the same time, they feel that a personal experience with advisors is more important than ever. Our advisors use digital tools to spend more time with clients and better evaluate the full scope of their financial lives. Our clients appreciate digital tools that improve their experience. They also want multiple ways in which to interact conveniently with their advisors. Clients increasingly embrace the use of digital and mobile tools. We continue to introduce new and better tools to meet and exceed clients' expectations. For example, our *UBS Manage Advanced [My Way]* solution offers clients in selected markets access to more than 60 professionally managed investment modules. Clients can personalize beyond what they can normally do in a discretionary solution while continuing to reap the benefits of continuous portfolio monitoring and risk management. The app is interactive; clients can work with their advisors to design their own portfolio based on individual preferences and priorities, easily including elements such as sustainable investing modules or themes. We intend to further extend access and upgrade client convenience and experience with *UBS Manage Advanced [My Way]*. In 2022, *UBS Circle One* was launched in Asia Pacific. This digital platform aims to bring to clients the best of UBS's global ecosystem for investing, connecting them with experts, thought leaders and actionable ideas delivered by the CIO in an engaging and convenient way. As a trusted brand offering premium content, we see opportunities to deliver our expertise to a broader set of clients, combining digital experience with human advice. Progress continues on our multi-year strategy to serve clients via two platforms: the *Wealth Management Americas Platform* in the US and the *Wealth Management Platform* outside the US.

In Personal & Corporate Banking, we further strengthened our leadership position as the leading digital bank in Switzerland by continuing to develop simple, smart, secure and sustainable solutions for our clients. In 2022, an average of 74% of Personal Banking clients used Digital Banking, and an average of 56% logged in via Mobile Banking. This demonstrates that our clients are engaging more frequently with us through our online and mobile capabilities. Our continued growth in digital enrollment and engagement led us to take the next evolutionary step, the introduction of a dedicated digital assortment line: *UBS key4*. Within six months of its launch in May 2022, we introduced a comprehensive digital product shelf. *UBS key4 banking* offers new Personal Banking clients 24/7 mobile account opening via secure, biometric self-identification and instant credit card availability, with attractive exchange rates. With *UBS key4 smart investing*, *UBS key4 gold*, *UBS key4 pension 3a* and *UBS key4 FX*, our Swiss clients benefit from new seamless digital-only investing, pension and payment solutions. We have also delivered products and personalized care for our corporate clients, whose digital adoption has accelerated further in recent years, with an average of 80% of such clients using Digital Banking in 2022. With *UBS key4 business*, small and medium-sized enterprises that are in the process of being formed can open their accounts more quickly and entirely paperlessly, and access comprehensive solutions beyond banking via our *UBS key4 business marketplace*. Complementing our dedicated digital offering, we also continued to further build out our hybrid touchpoints with clients, such as *Remote Sales & Advice* for private clients and our *Corporate Hybrid Bank*. In addition, to give clients access to market-leading solutions beyond banking, we have expanded our network of partnerships, such as our targeted long-term collaboration with Baloise, investing in homeowner platforms, such as *Houzy* and *Brixel*. Furthermore, we entered into a strategic partnership with ETH Zurich, a Swiss Federal Institute of Technology, to promote innovation and entrepreneurship in Switzerland. We have also continuously developed our sustainability offerings, such as *UBS Mortgage Energy*, which helps clients with the transition to more sustainable heating, and *UBS Loan Energy*, thanks to which clients benefit from attractive interest rates and comprehensive advice for their low-energy investment properties.

In Asset Management, we are accelerating our investment in digitalization. We have extended our digital client relationship management pilot tools, technologies and data capabilities to enhance the experience of, and service for, our clients, to foster innovation and to support alpha generation. For example, we are developing a scalable platform to enable more efficient development and management of theme-based investment products to meet growing client demand. To simplify and enhance our client service, we are introducing improvements in client and data analytics.

The Investment Bank strives to be the digital investment bank of the future, with innovation-led businesses driving efficiencies and solutions. In 2021, we announced the creation of a *Digital Platforms* business area within the Investment Bank, to work on transformation through innovation, experimentation and external partnerships. In Global Markets, our *Technology-Enhanced Sales (TES)* teams work in close partnership with our Data Intelligence, Chief Digital and Information Office and Client Coverage teams to embed our data and technology capabilities across all client teams and enhance our client service. TES enables clients to choose where and how we deliver content and uses data modeling to personalize the content they receive. *UBS Neo*, our award-winning multi-channel platform and enterprise ecosystem for digital clients, lets our professional and institutional clients access a comprehensive suite of products and services covering the full investment life cycle. *Investment Bank DigiOps*, our Operations team working in collaboration with the Chief Digital and Information Office on digital innovation projects, is enhancing the client experience through a digital platform that continues to make progress on simplifying Operations' technology infrastructure, increasing front-to-back efficiency and enhancing our decision-making and relevance to clients. By utilizing distributed ledger technology, Global Markets is transforming the business models of products where the Investment Bank has been strong historically. One example is *UBS key4 gold*, our global physical gold transaction network of retail investors, gold merchants, institutional investors and vault providers that enables clients to buy and sell at interbank prices, which saw growth in 2022. A tokenized representation of underlying physical gold provides fractional ownership with low-friction transactional capability. Our vision is to accelerate the tokenization of financial products traded by UBS clients. In November 2022, we launched and issued the world's first digital bond that is publicly traded and settled on both blockchain-based and traditional exchanges. Global Banking has also prioritized the client experience. *Global Banking Strategic Development Lab* uses data science, predictive analytics and quantitative models to develop solutions for our businesses. *UBS-GUARD* applies data science and predictive analytics to Global Banking business users, predicting the risk of companies becoming the targets of activists, identifying deal opportunities and helping navigate client pitches.

Engaging with our clients

Our clients' needs and their preferred communication channels continually evolve. Our objective is to engage with clients in the ways most convenient for them. We use a variety of channels to engage with clients, including regular client relationship and service meetings, as well as various corporate roadshows and dedicated events. In the post-COVID "new normal," we observe an increase in client interaction across all channels, and have changed to a mix of hybrid and in-person events.

Global Wealth Management interacted with clients via various settings in 2022, from personalized private briefings with subject matter experts to segment-specific virtual and in-person events and large-scale initiatives. We utilize marketing campaigns, events, advertising, publications and digital-only solutions to help drive greater awareness of UBS among prospective clients and reinforce trust-based relationships between advisors and clients.

Personal & Corporate Banking holds regular client events (leveraging a number of formats such as webcasts and in-person, virtual or hybrid events), covering a wide range of topics. In 2022, we increasingly engaged with clients via online channels, such as social media, online displays and search engines, and further decreased our use of traditional channels.

In Asset Management, we have a consistent program of client events and engagement activities throughout the year. These include our flagship conferences, such as the annual *UBS Reserve Management Seminar*, and we held our second annual *Alternatives Conference* in 2022. Alongside this, our teams continued the high level of interaction with clients globally in 2022, facilitated by new digital tools, and our publication of macro insights and thought leadership to provide timely insights into rapidly evolving markets. We also hosted a broad range of hybrid events, including our investment series, to help our clients better understand market challenges and opportunities, and we continued to engage with clients through our social media and online channels.

The Investment Bank hosted more than 175 investor conferences and educational seminars globally in 2022, covering a broad range of macro, sector, regional and regulatory topics. Almost all of those conferences were held virtually. More than 40,000 clients took part in such events in 2022, providing insight and access to our own opinion leaders, policy makers and leading industry experts. We leverage our intellectual capital and relationships and use our execution capabilities, differentiated research content, bespoke solutions, client franchise model and global platform to expand coverage across a broad set of clients. *UBS Neo Question Bank* is the largest global database of market-related questions asked by professional investors, while *UBS Live Desk*, built within the *UBS Neo* platform, provides clients with a stream of fast-paced commentary from UBS traders. Our clients' needs and their preferred communication channels have continued to evolve. Our objective is to engage with clients in the manner most convenient for them. Following the pandemic, we have observed an increase in client interaction through all channels, both digital and in-person.

How we measure client satisfaction

We use multiple techniques to regularly assess our achievements and the satisfaction of our clients.

Global Wealth Management is increasingly using technology and analytics capabilities to collect and respond to client feedback. Our digital client feedback tool lets clients submit, via mobile and the web, input about overall satisfaction with advisors and UBS, and share key topics they wish to discuss with their advisors. Advisors and their teams have seamless, real-time access to client feedback, enabling them to be highly responsive. The tool is available in the US and Asia Pacific, as well as most EMEA countries. In 2022, our client satisfaction level and net promoter score (NPS) remained high.

Personal & Corporate Banking has conducted annual surveys of clients in Switzerland since 2008, consistently covering all private and corporate client segments annually since 2015. Clients provide feedback on their satisfaction with regard to various topics (e.g., UBS overall, branches, client advisors, products and services) and indicate further product or advisory needs. Survey responses are distributed to client advisors, who follow up with each respondent individually. In 2022, our client satisfaction levels and NPS remained high, with client satisfaction regarding mobile banking at an all-time high.

The Quality Feedback system in Global Wealth Management and Personal & Corporate Banking provides a comprehensive and systematic platform to receive and process client feedback and suggestions. We receive feedback in various forms and through different client touchpoints. Client feedback, including complaints and suggestions, is vitally important, as it shows direct and unfiltered client needs, supports the development and introduction of new products and services, and, therefore, fosters the optimization of our offering in a client-focused manner. By addressing client feedback, we aim to strengthen client relationships, improve client satisfaction and make tangible improvements to our services. By sharing their views, clients contribute to quality improvements at all levels. We aim to respond to each individual who provides feedback. In 2022, key topics and enhancements centered mostly around services rendered by our hotlines and in our branches, cards, and Digital Banking features.

In Asset Management, we have an integrated process to record and manage client feedback through our client relationship management tool. We also conduct regular surveys, covering our wholesale and institutional clients globally, inviting them to assess their satisfaction with our client service, products and solutions, as well as other factors relevant to their investments. The results are analyzed to identify focus areas for improvement, and our client relationship managers follow up with respondents to address specific feedback where required.

The Investment Bank closely monitors client satisfaction via individual product coverage points. Direct client feedback is actively captured and tracked in our systems. Internal regional forums serve as a platform for senior management to discuss client relationships, possibilities for improvement, potential opportunities and specific client issues. Other processes are in place to enable consolidated findings to be shared within UBS as appropriate. The Investment Bank also closely monitors external surveys, which provide feedback across a range of investment banking services. We continue to make progress in simplifying our technology infrastructure, focusing on increasing front-to-back efficiency and enhancing our decision-making and relevance to clients. In the second quarter of 2022, we extended our Annual Global Markets Client Survey to a broader population looking to measure client satisfaction, and the ease and frequency of doing business. We also looked to understand the key drivers of each measure, both to refine individual coverage but also as an additional input into our investment and development plans. The most significant drivers of client satisfaction remain relationship management coverage and connectivity, liquidity and competitive pricing. We thoroughly evaluate the feedback we receive, including complaints from clients, and take measures to address key themes identified.

¹ Euromoney Private Banking and Wealth Management Survey 2022: No. 1 in ESG / Sustainable Investing.

² “Clients” refers to the number of unique business relationships operated by Personal Banking.

³ “Clients” refers to the number of unique business relationships or legal entities operated by Corporate & Institutional Clients.

Investors

We aim to create sustainable, long-term value for our investors by executing our strategy with discipline, maintaining risk and cost discipline, and delivering attractive shareholder returns.

Investor base

Our investor base is well diversified. A substantial proportion of our institutional shareholders are based in the US, the UK and Switzerland.

- **Refer to the “Corporate governance” section of this report for more information about disclosed shareholdings**

Alignment of interests

We aim to align the interests of our employees with those of our equity and debt investors, and this approach is reflected in our compensation philosophy and practices.

- **Refer to “Our compensation philosophy” in the “Compensation” section of this report for more information**

We are focused on driving long-term growth while maintaining risk and cost discipline

Our objective is to generate value for our shareholders and clients by driving long-term growth. To accomplish this, we are building on our scale, content and solutions, while remaining disciplined on risk and costs. This will give us the capacity to invest strategically, and will enable us to deliver against our financial and commercial targets.

Moreover, we are aiming to maximize our and our clients’ impact to create long-term sustainable value. We also have a responsibility toward our communities and employees. We have outlined selected environmental, social and governance aspirations, which should support our financial and commercial targets.

Our primary measurement of performance for the Group is return on common equity tier 1 (CET1), as regulatory capital is our binding constraint and drives our ability to return capital to shareholders.

- **Refer to the “Targets, aspirations and capital guidance” section of this report for more information**

Active capital management to enable growth and deliver attractive shareholder returns

Our first priority is ensuring that we can maintain a strong balance sheet. This includes our strong capitalization, in line with our capital guidance of maintaining a CET1 capital ratio of around 13% and a CET1 leverage ratio of greater than 3.7%.

As a second priority, we consider opportunities for investment in growth.

Our third priority is returning capital to shareholders in the form of a progressive dividend and share buybacks. For 2022, the Board of Directors is proposing a dividend to UBS Group AG shareholders of USD 0.55 per share. We also bought back USD 5.6bn of our shares. Looking ahead, we intend to buy back more than USD 5bn of shares in 2023.

- **Refer to “UBS shares” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information**

Communications

Our Investor Relations (IR) function is the primary point of contact between UBS and our shareholders. Our senior management and IR regularly interact with institutional investors, financial analysts and other market participants, such as credit rating agencies. Clear, transparent and relevant disclosures, and regular direct interactions with existing and prospective shareholders, form the basis for our communications. The IR team relays the views of and feedback on UBS from institutional investors and other market participants to our senior management.

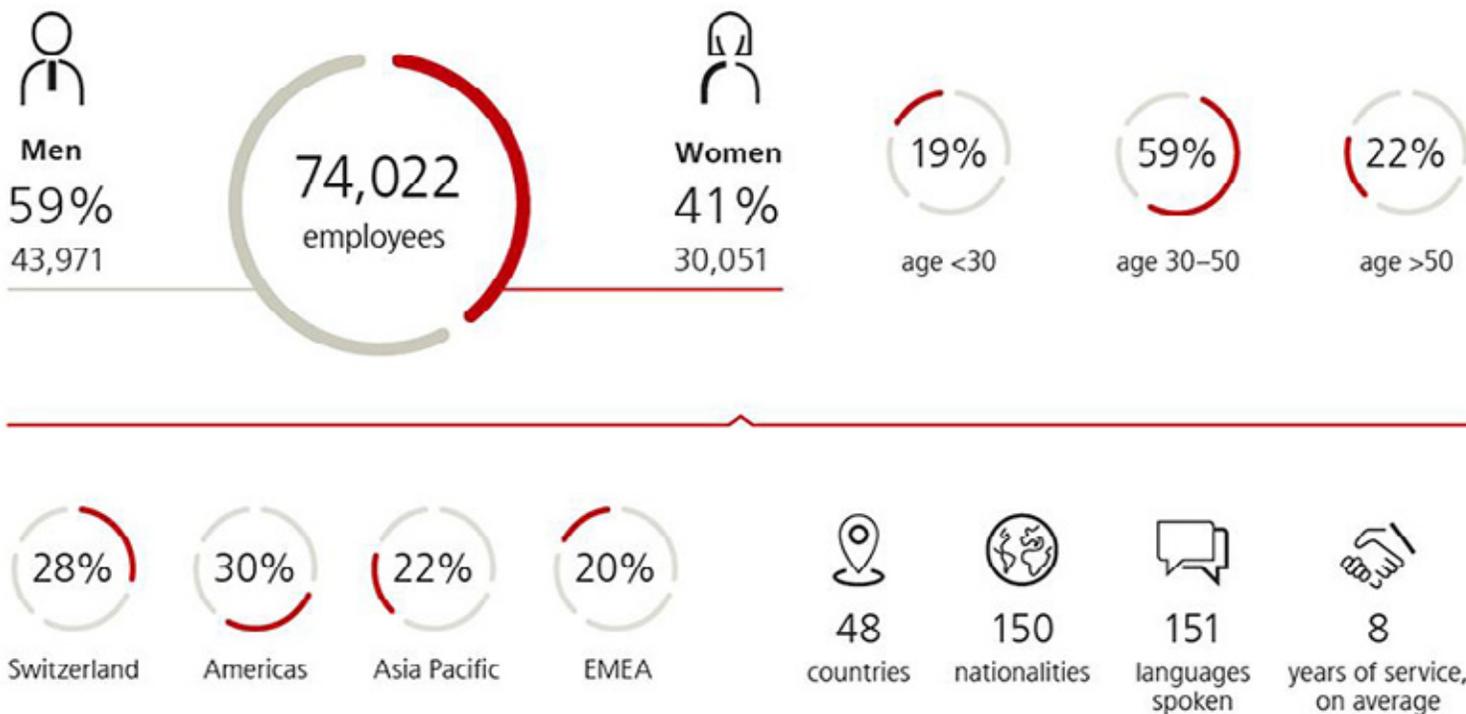
IR and our Corporate Responsibility function work together and interact with any investors interested in sustainability topics relevant to UBS and wider society.

- **Refer to the first part of the “Corporate governance” section of this report and “Information policy” in that same section for more information**
- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information**

Employees

At UBS, all business is personal. We are dedicated to being a world-class employer for talented individuals across all our markets, and a place where people can unlock their full potential. We want to have real impact. As such, we invest in measures to strengthen our unique culture and to provide a framework for employee growth and well-being as part of our overarching people-management approach.

Our workforce in a nutshell¹



¹ Calculated as of 31 December 2022 on a headcount basis of 74,022 internal employees only (72,597 FTE).

Deliver on our purpose and culture

Everything we do as a firm starts with our purpose. It is why we do what we do, and, in this respect, our culture is decisive in achieving our ambitions, and is grounded in our three keys to success: our *Pillars*, *Principles* and *Behaviors*. We therefore engage with our employees and seek to build an even more diverse and inclusive organization. Likewise, embracing flexibility and agile ways of working and our intentional focus on simplification and efficiency support a transformation that will generate significant benefits for our clients and for our employees.

In our global employee experience survey conducted in spring 2022, 92% of respondents indicated that they were familiar with our purpose. In 2022, we therefore sought to ensure that we are living up to our purpose by bringing it to life and driving it deeply into our daily business and people-management processes. Our Leadership Summit has been pivotal in that respect. Senior leaders engaged with and were aligned to our purpose and strategy, thereby making those concepts more tangible within their teams and accelerating our transformation. They also participated in training to discover their own purpose and to connect it to the firm's performance opportunities. We will have an ongoing focus on the topic.

- **Refer to “A firm driven by purpose” at the beginning of this report for more information about our purpose and culture**

Build a diverse, equitable and inclusive workplace

We live a culture of belonging, where everyone can thrive. In practical terms, we seek to hire individuals with diverse skills, perspectives and experiences, to provide visibility and opportunities, and to create an inclusive culture where employees feel recognized and valued.

As a member of The Valuable 500, a global business collective, we are committed to taking action on disability inclusion. We have improved the physical accessibility of many of our locations in 2022, increased digital accessibility for clients and employees, and provided support for our disability-focused employee networks to increase their visibility and impact.

In 2020, we outlined our intention to increase our female and ethnic minority representation, especially in leadership positions, and we are making progress toward these aspirations. For example, we aim to have 30% of Director and above roles globally held by women by 2025. At the end of 2022, that figure was 27.8%, up from 26.7% in 2021. Similarly, our 2025 aspiration is to have 26% of Director and above roles in the US and the UK held by ethnic minority employees. This figure was 20.4% in the US and 23.0% in the UK as of the end of 2022.

- **Refer to our Diversity, Equity and Inclusion Report 2022, which will be available in the second quarter of 2023 at ubs.com/diversity, for more details**

Pay our people fairly and equitably

Fair and consistent pay practices are designed to ensure employees are appropriately rewarded for their contribution. We pay for performance, and we take pay equity seriously. We've embedded clear commitments in our global compensation policies and practices, and we regularly conduct internal reviews and external audits as quality checks. Since 2020, we have been certified under the EQUAL-SALARY Foundation standards for our human resources practices in Switzerland, the US, the UK, the Hong Kong SAR and Singapore, covering more than two-thirds of our global employee population. Our global human resources policies and standards, including reward, performance management and promotion, from hiring through retirement, are reviewed annually to further improve our approach and processes. Our processes are global, and we apply the same standards across all our locations.

Listen to and appreciate employees

Key to bringing our purpose to life is listening to employees and acting on the things that matter to them. As part of our employee listening strategy, we conduct regular Group-wide, focused and employee life cycle surveys. Those surveys measure indicators such as strategic alignment, employee experience and well-being, collaboration, innovation, career development and line manager effectiveness. We implement improvement measures on firm-wide, divisional and regional levels and use survey results to create future culture-building initiatives.

Employee recognition continued to be a priority in 2022, as appreciation brings teams together and increases employees' motivation and engagement. In particular, our Group Franchise Awards program rewards employees for promoting innovation and cross-divisional collaboration. A linked idea-sharing platform helps employees collaborate on solutions for various operational, client service and sustainability challenges. Furthermore, our peer-to-peer appreciation program, called Kudos, encourages employees to recognize colleagues' exemplary behavior, with more than 424,000 recognitions awarded in 2022 alone.

Attract employees with the right capabilities and support their development

Connecting people with ideas and opportunities starts with our employees. In 2022, we continued to focus on hiring diverse individuals with strong potential, along with the right capabilities and agile mindset. These qualities enable us to deliver innovative and personalized products to clients faster, and in a more connected way. We hired a total of 12,693 external candidates in 2022, including more than 1,900 graduates and trainees, apprentices and interns through our junior talent programs worldwide. We actively support multi-year apprenticeship programs in Switzerland and the UK, along with summer internship programs in numerous locations. In 2022, for the 14th consecutive year, UBS was recognized among the top 50 of the World's Most Attractive Employers by employer-branding expert Universum.

Personnel by region

<i>Full-time equivalents</i>	As of			% change from 31.12.21
	31.12.22	31.12.21	31.12.20	
Americas	21,819	21,317	21,394	2
<i>of which: USA</i>	21,032	20,537	20,528	2
Asia Pacific	16,489	15,618	15,353	6
Europe, Middle East and Africa (excluding Switzerland)	14,342	14,091	13,899	2
<i>of which: UK</i>	6,234	6,051	6,069	3
<i>of which: rest of Europe (excluding Switzerland)</i>	7,823	7,826	7,652	0
<i>of which: Middle East and Africa</i>	285	215	178	33
Switzerland	19,947	20,359	20,904	(2)
Total	72,597	71,385	71,551	2

Drive career growth

We want our employees to be able to build long and successful careers. It starts with our senior leaders and line managers, all of whom are expected to invest in their employees' development and to inspire excellence. We take a systematic approach to talent management, conducting annual talent reviews that look at our succession planning needs along with individual employees' contributions, abilities and future potential. Supporting this is our innovative Career Navigator platform. It offers a wide range of self-service tools and resources, including mentorship and networking opportunities, career path and training guidance, access to short-term rotations and internal mobility resources. To date, more than 7,000 people have shared their skills, enabling colleagues or internal recruiters to approach them directly for their subject matter expertise.

Our in-house UBS University plays a central role in both skill- and culture-building. Our broad offering includes business, leadership and line manager education along with training on digitalization, data literacy, agile working, diversity, inclusion and personal well-being, among other topics. Launched in June 2022, our new learning experience platform offers AI-powered training recommendations based on employees' unique needs and interests. We invested USD 78m in training in 2022, and our permanent employees completed more than 1,327,000 learning activities, including mandatory training, for an average of two training days per employee.

Work smarter

Driven by our strategic imperatives and evolving client needs, we continued to embrace new ways of working together in 2022. In particular, we accelerated our transition to agile ways of working, with approximately 18,500 employees across the firm working in agile teams as of year-end. In this setup, pods of specialists with end-to-end responsibility are empowered to achieve better results, and more quickly, than in traditional project structures. A number of tailored measures supported the transition, including the development of one consistent agile model and specialized training delivered through the Agile Academy within our UBS University.

Comprehensive workforce data dashboards help us analyze all aspects of the employee life cycle, including recruitment, internal mobility and attrition. These tools enable us to identify trends and make workforce decisions based on relevant HR data.

Focus on impact and outcome

Our performance management approach (*MyImpact*), which considers both contribution and behavior, supports a high-performance culture while simplifying our performance management and feedback processes. It features aspirational objectives with outcomes aligned to strategic priorities, continuous feedback and transparent year-end decisions that support pay-for-performance principles. Line managers play a key role in the quality of our approach. In 2022, we introduced an integrated feedback app called *Feedback 365*, which allows employees to easily give and receive meaningful feedback throughout the year.

Foster a supportive workplace community

We are committed to meeting employees' needs and supporting their overall well-being. Hybrid-working arrangements enable many employees to work at home several days a week, with agreed in-office days to support collaboration. Additionally, starting with Global Wealth Management in the US, a new virtual worker framework launched in March 2022 will enable eligible US employees to work entirely remotely. These measures, along with options such as flexible hours, part-time working, job sharing and partial retirement, will help us attract and retain top talent while making us a stronger, more dynamic company.

Having seen the positive impact, we further expanded our employee health and well-being offering in 2022. This included a suite of programs, benefits and workplace resources, along with a bespoke eLearning curriculum, that aimed to help our employees manage their health, foster well-being, strengthen their resilience and support the sustainability of the organization. We also sponsored virtual fitness challenges and mental health initiatives in all regions.

- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about our workforce, our people management approach and relevant data**

Society

The world's social and environmental problems are too big and complex to tackle alone. Lasting change can only be achieved when philanthropists and public and private organizations work collectively to maximize positive impact for people and the planet.

Our clients can maximize the positive effect of their giving through our diverse social impact offering: UBS Philanthropy Services, the grant-making UBS Optimus Foundation network, UBS Global Visionaries and UBS Community Impact.

Reimagining client philanthropy

With more than 100 social impact and philanthropy staff around the globe, we help clients to maximize their impact locally, nationally and globally. We have partnered for more than two decades with clients and their families by using an investment-based approach and connecting them to an international network of expertise and support.

To best serve our clients, we base our approach on three pillars: Advice, Insights and Execution. *Advice* – consulting with clients who are considering setting up their first charitable fund and guiding them on tax-efficient giving, thus maximizing the value of charitable giving. *Insights* – connecting our clients to a global network of experts, both within and outside UBS (e.g., through insight trips, publications and events with fellow philanthropists, thought leaders and social entrepreneurs, such as UBS Global Visionaries). *Execution* – providing clients with flexible options for managing their philanthropic giving, including structures such as donor-advised funds (DAFs), outcomes financing, emergency relief funds and our *UBS Collectives*, and supporting curated programs via the UBS Optimus Foundation network.

Donor-advised funds

A DAF offers clients an easy, flexible and efficient alternative to setting up their own foundation and can be managed in line with their usual investment approach. Their charitable donations can be invested within the parameters they select, such as capital, growth or income, so they can grow their fund to give grants at a later date. UBS offers these services in Switzerland, Singapore and the UK, with USD 249m in donations in 2022.

UBS Optimus Foundation

UBS Optimus Foundation is a network of foundations globally that connects clients with inspiring programs designed to make a measurable, long-term difference. It has a 20-year track record and is recognized globally as a philanthropic thought leader and is focused on incubating impact ventures, scaling impact through partnerships and achieving impact transparency. The network is a pioneer in the social finance space, through which we leverage solutions to mobilize private capital in new and more efficient ways. It conducts extensive due diligence and only recommends programs considered to have the capacity to achieve long-term, measurable impact. UBS also makes matching contributions to the network, to help our clients' donations go even further.

Collective impact

The *UBS Collectives* also utilize an evidence-based approach and bring together philanthropists to pool their funds, share their expertise and achieve a longer-term impact. The *Collectives* are a three-year learning journey during which philanthropists follow a curriculum, network with peers and engage in programs with the goals of preventing family separation, mitigating climate change and funding programs linked to measurable results. In 2022, USD 4.8m in funding was raised for this long-term, systems-level change approach.

Emergency relief

In response to urgent relief efforts, in 2022 UBS raised more than USD 25m for the Ukraine Relief Fund, with matched funding from UBS and XTX Markets bringing the total to more than USD 50m. Over half the funds have been disbursed to 14 partners providing relief, recovery and resilience services. In 2022, we also launched our Pakistan Relief Fund with our partners Americares and The Citizens Foundation, which raised USD 1.2m, including UBS matching contributions, to provide both response and recovery efforts.

UBS Global Visionaries

Through our UBS Global Visionaries program, we aim to create opportunities for clients and prospective clients to connect with leading social entrepreneurs, and help entrepreneurs focusing on social and environmental issues increase their impact by expanding their network, building capacity and raising awareness of their work. Since the program started in 2016, we have onboarded and helped 68 entrepreneurs to accelerate their impact.

A third-party evaluation¹ conducted in 2022 found that 88% of those entrepreneurs said the program had had a positive influence on expanding their networks, with 68% creating partnerships from it, 64% agreed that we had increased awareness of critical global issues and their solutions, 51% agreed that the program had helped them build skills valuable to delivering their mission, and 48% felt that the program had influenced their fundraising efforts. We have also started to evaluate how we can maximize the role of the program in terms of the impact of Global Visionaries on the United Nations Sustainable Development Goals. In 2022, 27% noted this benefit.¹

UBS Community Impact

At UBS, we seek to have an impact in local communities. We have a strategic focus on education and the development of skills, as we believe these topics are where our resources can make the most impact. We believe our long-term investment in these subjects is central to furthering the economic and social inclusion of those we support through our activities.

With our Community Impact program, we focus on helping young people and adults to learn and develop skills. We deliver on our commitment through strategic financial support and employee volunteering that will address social issues to help further their economic and social inclusion. Through our Community Impact program, in 2022, we:

- supported 370,916 young people and adults in learning and developing skills – our aim is to support 1.5 million young people and adults by 2025;
- engaged 34% of our global workforce in volunteering.

Direct cash contributions from the firm, including support through our Community Impact program, UBS's affiliated foundations in Switzerland and the UBS Foundation of Economics in Society at the University of Zurich, and contributions to the UBS Optimus Foundation network, amounted to a total of USD 76m in 2022.

UBS's overall charitable contributions are measured using the industry-leading Business for Societal Impact (B4SI) framework. This includes cash, employee time and in-kind support.

- **Refer to the “Social” section of our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information**

¹ Evaluation led by Wasafiri Consulting in October 2022, based on survey results from 71% (44) of our 62 UBS Global Visionaries and alumni at the time.

Our focus on sustainability and climate

Our commitment to sustainability starts with our purpose. We know finance has a powerful influence on the world and we recognize that investments can help create a better world for everyone: a fairer society, a more prosperous economy and a healthier environment. That is why we partner with our clients to help them mobilize their capital toward a more sustainable world and why we have put sustainability at the heart of our purpose. We are guided by the goal of being the financial provider of choice for clients that want to mobilize capital toward the achievement of the United Nations Sustainable Development Goals (the SDGs) and the orderly transition to a low-carbon economy.

Our Code of Conduct and Ethics

In our Code of Conduct and Ethics (the Code), the Board of Directors (the BoD) and the Group Executive Board (the GEB) set out the principles and practices that define our ethical standards and the way we do business, which apply to all aspects of our business. All employees must affirm annually that they have read and will adhere to the Code and other key policies, supporting a culture where ethical and responsible behavior is part of our everyday operations. In our Code, we make a commitment to acting with the long term in mind and creating value for clients, employees and shareholders. We aspire to do our part in creating a fairer, more prosperous society, championing a healthier environment and addressing inequalities at their root. This ethos underpins our purpose and is in line with our external commitments, such as our pledge to help making progress toward the SDGs. Following a substantial review in 2021, we made only limited changes to the Code in 2022, mainly pertaining to clarifications, simplifications and alignment of language.

- **Refer to the Code of Conduct and Ethics of UBS, available at ubs.com/code, for more information**

Our sustainability and impact governance

Sustainability activities, including climate, are overseen at the highest level of UBS, by the BoD and the GEB, and are grounded in our Code.

- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about our sustainability and impact governance**

Board of Directors and Group Executive Board

The BoD is responsible for setting UBS’s values and standards for the purpose of ensuring that the Group’s obligations to stakeholders are met. Both the Chairman of the BoD and the Group CEO play key roles in safeguarding our reputation and ensuring we communicate effectively with all of our stakeholders. The BoD’s Corporate Culture and Responsibility Committee (the CCRC) is the UBS body primarily responsible for corporate culture, responsibility and sustainability. The CCRC oversees our sustainability and impact strategy and key activities across environmental and social topics, including climate, nature and human rights. Annually, it considers and approves our firm’s sustainability and impact objectives. During its six meetings throughout the course of the year, the CCRC also reviews the GEB’s activities in executing our climate strategy, including our net-zero targets, and, jointly with the BoD’s Risk Committee, evaluates the progress of our climate risk program. All BoD committees have environmental, social and governance (ESG)-related responsibilities.

The Group CEO has delegated to the GEB Lead for Sustainability and Impact, Suni Harford, the responsibility to lead reviews of the firm’s sustainability and impact strategy and related objectives, in agreement with fellow GEB members, and to propose strategy and objectives to the CCRC. The GEB Lead for Sustainability and Impact also co-chairs the firm’s cross-divisional and cross-functional Sustainability and Climate Task Force, which oversees the implementation of the firm’s sustainability activities and its climate action plan, including its net-zero program. We manage these annual plans and goals through our ISO 14001-certified environmental management system, with management accountabilities across our firm. Senior representatives from across our firm, including from the business divisions, Risk, Compliance and Finance, attend the task force’s regular meetings.

The GEB also resolves overarching matters relating to sustainability and climate risks, including risk management framework, policies, and disclosure.

- **Refer to “Board of Directors” in the “Corporate governance” section of this report for more information about the CCRC**

Group Sustainability and Impact

The Group Sustainability and Impact (GSI) organization supports the GEB Lead for Sustainability and Impact with carrying out her responsibilities. GSI consists of the Chief Sustainability and Social Impact offices, headed by the Chief Sustainability Officer (the CSO) and the Head Social Impact, respectively. The CSO is responsible for driving the implementation of the Group-wide sustainability and impact strategy, including reporting on our progress toward net zero (and the execution thereof by the business divisions and Group Functions). The Head Social Impact is responsible for driving and implementing our social impact strategy, including Community Impact, Philanthropy Services and UBS Global Visionaries. Progress toward the firm’s sustainability and impact strategy and associated targets is reviewed at least once a year by the GEB and the CCRC.

- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about our sustainability and impact governance**

Our sustainability and impact strategy

To help us maximize our impact, we focus on three key areas to drive the sustainability transition: planet, people and partnerships.

- *Planet:* Climate is a clear focus for us as we shift toward a lower-carbon future. We have committed to achieving net-zero greenhouse gas (GHG) emissions from across our business by 2050.
- *People:* We believe in a diverse, equitable and inclusive society. We are taking action to get there, within our own workplace and beyond.
- *Partnerships:* By working in partnership with other thought leaders and standard setters, our goal is to drive change at a global scale.
 - **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about how UBS is advancing sustainability in the financial sector and beyond**

Our approach to climate and nature

Our climate strategy covers two main areas: managing climate-related financial risks and acting for a low-carbon future. Underpinning these two areas are four strategic pillars.

Climate strategy

Governance

Strategy

Managing climate-related financial risks

Protecting our clients' assets

- Managing climate-related risks and opportunities through our innovative products and services in investment, financing and research

Protecting our own assets

- Limiting our risk appetite for carbon-related assets
- Estimating our vulnerability to climate risks

Acting for a low-carbon future

Reducing our climate impact

- Sourcing 100% of our electricity from renewable sources
- Responsible supply chain management

Mobilizing capital

- From private and institutional clients
- Toward the orderly transition to a low-carbon economy

Risks and opportunities

Metrics and targets

We understand the deep interrelationships that exist between climate and nature. Our climate strategy, including our ambition to achieve net zero, also forms part of our approach toward managing nature-related risks and opportunities.

- **Refer to our Climate and Nature Report 2022, available at ubs.com/gri, for a full description of UBS's approach to climate and nature**

Our approach to sustainable finance

As a global financial institution, we have a role in helping clients direct capital toward the SDGs. Our clients turn to us for advice on how they can help finance the transition to a low-carbon economy, support sustainable finance, align their investments with their personal values and better risk manage their portfolios and businesses. They want to take advantage of these opportunities, while also managing the risks associated with this transformational challenge.

During a year of global geopolitical and economic upheaval, sustainability and sustainable finance remained strategically important topics for UBS and many of our clients, with a focus on two key areas:

- the implementation of strategic sustainability commitments, for example reaching net-zero GHG emissions across all our activities by 2050, and
- the ongoing evolution of regulatory guidance designed to prevent greenwashing.

At UBS, we want to partner with all our clients by providing innovative and effective products and solutions that can support them in their sustainability transition and deliver on their commitments, where that is their preference. In particular, we want to support innovation and technological progress.

- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about our sustainability and impact strategy and activities**

Defining sustainable finance

It is important to set out how we define sustainable finance, as at present there is no global, uniformly accepted definition. At UBS, sustainable finance means any financial product or service (including both investing and financing solutions) that aims to explicitly align with and / or contribute to sustainability-related objectives, while targeting market-rate financial returns.

Sustainability outcomes can occur across a range of topics including goals defined using a reference framework, such as the SDGs in the United Nations 2030 Agenda for Sustainable Development. As an example, a sustainable investment (SI) product could invest in companies whose transition plans are aligned with the goal of limiting global warming to 1.5°C compared with the pre-industrial age or invest with the goal of encouraging companies to adopt such plans.

Our definition is also reflected in our Group’s SI framework, which specifically defines “sustainability focus” and “impact investing” products. Both categories reflect a defined and explicit sustainability intention of the underlying investment strategy. This intentionality differentiates them from more “traditional” investment products, or those that consider ESG aspects but do not actively and explicitly pursue any specific sustainability objective, such as ESG integration- or exclusions-only approaches.

Investment approaches

UBS’s definition of sustainable investments

“Traditional” investing

- No explicit sustainability objectives
- Manage sustainability and all risks related to investment performance
- May use ESG tools, but these do not drive the strategy

Sustainability focus

- Target market-rate investment returns
- Have explicit sustainable intentions or objectives that drive the strategy
- Underlying investments may contribute to positive sustainability outcomes through products, services and/or proceeds

Impact investing

- Target market-rate investment returns
 - Have explicit intentions to generate measurable, verifiable, positive sustainability outcomes
 - Impact attributable to investor action and/or contribution
-

Identifying opportunities

UBS has a global and diversified business model. Each client has specific and differentiated sustainable financing, investing and / or advisory needs. Leveraging the deep expertise of our experienced teams, we work hard to service those needs in the best way possible. While their needs are diverse, our interactions with our clients follow an established rationale that starts by building an understanding of the relevance of sustainability for their business and / or investment portfolio.

Sustainable finance opportunities



Sustainable investment

In 2022, we made progress on a number of important investment product initiatives relevant to a broad spectrum of clients across our business areas. For example:

- we made it easier for private clients to access SI products and services, suited to their individual preferences, e.g., through expanded access to our Advice SI and separately managed account (SMA) solutions, and new targeted sustainable and impact offerings. In line with EU regulations for clients in scope thereof, UBS systematically captures clients' preferences when it comes to SI;
 - we expanded the range of sustainable and impact funds in public and private markets and exchange-traded funds available to private, institutional and corporate clients; and
 - we continued to provide customized, tailored, and structured investment solutions for private and institutional investors.
- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about our sustainable investing and financing offering, including financing solutions, advisory, and research and insights**

Sustainable financing

We develop financing solutions to help our clients transition to a more sustainable future. These solutions can be on-balance sheet (e.g., green or sustainable loans and mortgages) or off-balance sheet (such as access to debt and equity capital markets), and also include transaction structuring. Highlights in 2022 included: our Investment Bank facilitating USD 48bn of green, social, sustainability and sustainability-linked (GSSS) bonds financing through 77 bond deals for our clients, with a market-leading share of the Swiss franc GSSS bond market; our Personal & Corporate Banking business launching both *UBS Mortgage Energy* and *UBS Loan Energy*, the former to encourage private clients to replace their fossil fuel heating, either with a more sustainable alternative or by installing a photovoltaic system, and the latter being specially designed for energy-efficient investment properties. Clients benefit from attractive interest rates and comprehensive advice for their low-energy properties. In December of 2022, UBS adopted guidelines providing an internal global standard for all our products in the categories of sustainable lending, sustainable bonds and GHG emissions trading. During the course of 2023, UBS expects to (re-)assess all its products against these guidelines.

Sustainable investments

<i>USD bn, except where indicated</i>	For the year ended			% change from 31.12.21
	31.12.22	31.12.21	31.12.20	
Sustainable investments¹				
Sustainability focus ²	246.9	222.7	127.7	10.9
Impact investing ³	20.7	28.5	13.1	(27.4)
Total sustainable investments^{4,5}	267.6	251.2	140.8	6.5
SI proportion of total invested assets (%)	6.8	5.5	3.4	
UBS total invested assets	<u>3,957.2</u>	<u>4,596.2</u>	<u>4,187.2</u>	(13.9)

- 1 We focus our sustainable investment reporting on those investment strategies exhibiting an explicit sustainability intention.
- 2 Strategies that have explicit sustainable intentions or objectives that drive the strategy. Underlying investments may contribute to positive sustainability outcomes through products / services / use of proceeds. Examples include Global Wealth Management's discretionary Manage SI mandate solutions and Asset Management's strategies such as its Global Sustainable Equities product.
- 3 Strategies that have explicit intentions of generating measurable, verifiable and positive sustainability outcomes. Impact generated is attributable to investor action and / or contributions. Examples include Global Wealth Management's Oncology Impact funds and Asset Management's UBS Engage for Impact or UBS Climate Action funds.
- 4 In 2022, UBS converted funds to the sustainability focus and impact investing categories, in line with corresponding changes to the funds' underlying investment policies. The main impact was on sustainability focus and impact investing strategies in Asset Management of USD 33bn. Further, we aligned the Global Wealth Management and Personal & Corporate Banking reporting of UBS funds and mandates products to the Asset Management categorization with an impact on sustainable investments of USD 20bn.
- 5 In 2022, methodology changes related to the application of the Group SI framework resulted in a decrease in invested assets of USD 10bn across total sustainable investments.

In line with global market developments, at UBS, we continue to grow SI assets under management (AuM) as a share of total AuM, reaching 6.8% by the end of 2022, compared with 5.5% at the end of 2021. As of 31 December 2022, UBS's SI assets (sustainability focus and impact investing) were USD 268bn, compared with USD 251bn at year-end 2021. Impact investing assets decreased to USD 21bn from USD 29bn, reflecting negative market performance and foreign currency effects, as well as methodology changes.

- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about our sustainable investing and financing offering, including financing solutions, advisory and research and insights**

Managing sustainability and climate risks

At UBS, sustainability and climate risk is defined as the risk that UBS negatively impacts, or is impacted by, climate change, natural capital, human rights, and other environmental, social, governance matters. Sustainability and climate risk may manifest as credit, market, liquidity and / or non-financial risks for UBS, resulting in potential adverse financial, liability and / or reputational impacts. These risks extend to the value of investments and may also affect the value of collateral (e.g., real estate). Climate risks can arise from either changing climate conditions (physical risks) or from efforts to mitigate climate change (transition risks). Physical and transition risks from a changing climate contribute to a structural change across economies and, consequently, can affect banks and the financial sector through financial and non-financial impacts.

Our Sustainability and Climate Risk (SCR) unit (part of Group Risk Control) manages material exposure to sustainability and climate risks. It also advances our firm-wide SCR initiative to build in-house capacity for the management of sustainability and climate-related risks.

- **Refer to “Sustainability and climate risk” in the “Risk management and control” section of this report**
- **Refer to Appendix 2 to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for a full description of our sustainability and climate risk policy framework**

Our sustainability goals and progress

We work with a long-term focus on providing appropriate returns to our stakeholders in a responsible manner. We are committed to providing transparent targets and reporting on the progress made against them. Our aspirational goals, as set out below, can therefore only partly be compared with what we set out in previous years.

Our aspirational goals and progress

Our priorities Planet, people, partnerships

Planet



Our aspirational goals

USD 400bn invested assets in sustainable investments by 2025.

Decarbonization targets for 2030 for financing of the real estate, fossil fuels, power generation and cement sectors (from 2020 levels):

- reduce emissions intensity of UBS's residential real estate lending portfolio by 42%;
- reduce emissions intensity of UBS's commercial real estate lending portfolio by 44%;
- reduce absolute financed emissions associated with UBS loans to fossil fuel companies by 71%;
- reduce emissions intensity associated with UBS loans to power generation companies by 49%; and
- reduce emissions intensity associated with UBS loans to cement companies by 15%.

Align 20% of AuM to be managed in line with net zero (Asset Management).²

Achieve net-zero emissions across discretionary client portfolios by 2050 (Asset Management).³

Achieve net-zero energy emissions resulting from our own operations (scopes 1 and 2) by 2025; cut energy consumption by 15% by 2025 (compared with 2020).

Offset historical emissions back to the year 2000 by sourcing carbon offsets (by year-end 2021) and by offsetting credit delivery and full retirement in registry (by year-end 2025).

Engage with key vendors on aiming for net zero by 2035.

Our progress in 2022

Increased invested assets in sustainable investments to USD 268bn (compared with USD 251bn in 2021).

Calculated progress against pathways for the real estate (commercial and residential), fossil fuel and power generation sectors:¹

- reduced emissions intensity of UBS's residential real estate lending portfolio by 8% (end of 2021 vs 2020 baseline);
- reduced emissions intensity of UBS's commercial real estate lending portfolio by 7% (end of 2021 vs 2020 baseline);
- reduced absolute financed emissions associated with UBS loans to fossil fuel companies by 42% (end of 2021 vs 2020 baseline); and
- reduced emissions intensity associated with UBS loans to power generation companies by 12% (end of 2021 vs 2020 baseline).

Introduction of an additional decarbonization target for the cement sector, as well as an estimation of the overall financed emissions.

Initiated analysis of revisions to fund documentation and investment management agreements to align with Asset Management's net-zero-aligned frameworks.

Reduced net GHG footprint for scope 1 and 2 emissions by 13% and energy consumption by 8% (compared with 2021); continued implementation of the replacement of fossil fuel heating systems and investing in credible carbon removal projects; achieved 99% renewable electricity coverage despite challenging market conditions.

Continued to follow up on credit delivery and retirement of sourced portfolio.

Identified "GHG key vendors" (vendors that collectively account for >50% of our estimated vendor GHG emissions) and invited the vendors that accounted for 67% of our annual vendor spend (including all GHG key vendors) to disclose their environmental performance through CDP's Supply Chain Program, with 66% of the invited vendors completing their disclosures in the CDP platform.

People



30% global female representation at Director level and above by 2025.

26% of US roles at Director level and above held by employees from ethnic minorities by 2025.

26% of UK roles at Director level and above held by employees from ethnic minorities by 2025.

Raise USD 1bn in donations to our client philanthropy foundations and funds and reach 25 million beneficiaries by 2025 (cumulative for 2021–2025).

Increased to 27.8% (2021: 26.7%) female representation at Director level and above.

Increased to 20.4% (2021: 20.1%) ethnic minority representation at Director level and above in the US.

Increased to 23.0% (2021: 21.3%) ethnic minority representation at Director level and above in the UK.

Achieved a UBS Optimus Foundation network donation volume of USD 274m in 2022, totaling USD 436m since 2021 (both figures include UBS matching contributions).

Reached 5.9 million beneficiaries.

Partnerships



Support 1.5 million young people and adults to learn and develop skills through our community impact activities (2022–2025).

Establish UBS as a leading facilitator of discussion, debate and idea generation.

Drive standards, research and development, and product development.

Reached 370,916 beneficiaries through strategic community impact activities.⁴

Co-organized, with the Institute of International Finance, the first Wolfsberg Forum for Sustainable Finance.

Joined a consortium that is pioneering methods of assessing and maximizing the GHG reduction potential of energy storage.

Co-founded Carbonplace, a technology platform for the voluntary carbon market that has the goal of creating a streamlined and transparent market for our clients.

Co-led the Taskforce on Nature-related Financial Disclosures' financial-sector-specific working group.

Collaboration with two Swiss companies that are pioneering innovative carbon removal technologies.

Joined the Partnership for Carbon Accounting Financials (PCAF).

¹ Refer to the “Environment” section of our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for further information. The inherent one-year time lag between the as-of date of our lending exposure and the as-of date of emissions can be explained by two factors: corporates disclose their emissions in annual reporting only a few months after the end of a financial year; and specialized third-party data providers take up to nine months to collect disclosed data and make it available to data users. Consequently, the baselines for our net-zero ambitions are based on year-end 2020 lending exposure and 2019 emissions data. Our 2021 emissions actuals are based on year-end 2021 lending exposure and 2020 emissions data.

² The 20% alignment goal amounted to USD 235bn at the time of Asset Management’s commitment in 2021. By 2030, the weighted average carbon intensity of funds is to be 50% below the carbon intensity of the respective 2019 benchmark.

³ The near- and medium-term plans for the achievement of this goal include our Asset Management business division only.

⁴ Our Community Impact program has a strategic focus on education and the development of skills.

Our climate-related metrics and targets

We have developed methodologies that we use to set our climate-related targets and identify climate-related risks and which underly the metrics that are disclosed in this report. Standard-setting organizations and regulators continue to provide new or revised guidance and standards, as well as new or enhanced regulatory requirements for climate disclosures. Our disclosed metrics are based upon data available to us, including estimates and approximations where actual or specific data is not available. We intend to update our disclosures to comply with new guidance and regulatory requirements as they become applicable to UBS. Such updates may result in revisions to our disclosed metrics, our methodologies and related disclosures, which may be substantial, as well as changes to the metrics we disclose.

Our climate targets and ambitions are high-level goals that have been set based on the methodologies, data and assumptions that we currently use. Changes to these methodologies, data and assumptions may affect our progress toward intermediate targets and ambitions and the achievability of net zero and other climate goals. Our 2050 net-zero targets, and related ambitions for scope 3 emissions, have a critical dependency on overall progress across all sectors and countries toward net-zero carbon emissions that requires substantial governmental action across many jurisdictions. In the absence of such progress, our goals with respect to scope 3 emissions will not be achievable.

- **Refer to our Climate and Nature Report 2022, available at ubs.com/gri, for a full description of our net-zero targets, including baselines and pathways**

Climate-related metrics 2022

	For the year ended			% change from 31.12.21
	31.12.22	31.12.21	31.12.20	
Risk management				
Carbon-related assets (USD bn) ^{1,2}	33.8	36.5	37.1	(7.4)
<i>of which: UBS AG</i>	8.9	10.1	11.0	(11.9)
<i>of which: UBS Switzerland AG</i>	24.6	26.0	25.4	(5.4)
<i>Proportion of total customer lending exposure, gross (%)</i>	7.5	8.0	8.6	
Total exposure to climate-sensitive sectors, transition risk (USD bn) ^{2,3,4}	24.9	27.3	27.1	(8.8)
<i>of which: UBS AG</i>	5.4	6.7	7.5	(19.4)
<i>of which: UBS Switzerland AG</i>	19.3	20.4	19.2	(5.4)
<i>Proportion of total customer lending exposure, gross (%)</i>	5.5	5.9	6.2	
Total exposure to climate-sensitive sectors, physical risk (USD bn) ^{2,3,4}	30.0	31.9	35.0	(6.0)
<i>of which: UBS AG</i>	11.6	13.3	18.3	(12.8)
<i>of which: UBS Switzerland AG</i>	17.7	18.2	16.2	(2.7)
<i>Proportion of total customer lending exposure, gross (%)</i>	6.7	7.0	8.0	
Opportunities				
Number of green, sustainability, and sustainability-linked bond deals ⁵	69	98	29	(29.6)
Total deal value of green, sustainability, and sustainability-linked bond deals (USD bn) ⁵	42.4	63.3	19.3	
<i>UBS-apportioned deal value of above (USD bn)</i>	8.8	13.2	5.7	
Stewardship – Voting				
Number of climate-related resolutions voted upon ⁶	160	89	50	79.8
<i>Proportion of supported climate-related resolutions (%)</i>	71.2	78.6	88.0	
Own operations (reporting period: July to June)				
Net GHG footprint (1,000 metric tons CO ₂ e) ⁷	25	30	75	(15.4)
<i>Change from baseline 2004 (%)</i>	(93.0)	(92.0)	(79.0)	
Share of renewable electricity (%)	99	100	85	

- As defined by the Task Force on Climate-related Financial Disclosures (the TCFD), in its expanded definition published in 2021, UBS defines carbon-related assets through industry-identifying attributes of the firm's banking book. UBS further includes the four non-financial sectors addressed by the TCFD, including, but not limited to, fossil fuel extraction, carbon-based power generation, transportation (air, sea, rail, and auto manufacture), metals production and mining, manufacturing industries, real estate development, chemicals, petrochemicals, and pharmaceuticals, building and construction materials and activities, forestry, agriculture, fishing, food and beverage production, as well as including trading companies that may trade any of the above (e.g., oil trading or agricultural commodity trading companies). This metric is agnostic of risk rating, and therefore may include exposures of companies that may be already transitioning or adapting their business models to climate risks, unlike UBS climate-sensitive sectors methodology, which takes a risk-based approach to defining material exposure to climate impacts.
- Methodologies for assessing climate-related risks are emerging and may change over time. As the methodologies, tools and data availability improve, we will further develop our risk identification and measurement approaches, including further and updated geospatial analysis of properties securing financing with UBS (real estate) and better understanding how private lending (e.g., Lombard) activities may result in direct financial impacts for UBS. Lombard lending rating is assigned based on the average riskiness of loans.
- Consists of total loans and advances to customers and guarantees, as well as irrevocable loan commitments (within the scope of expected credit loss), and is based on consolidated and standalone IFRS numbers. Metrics are calculated and restated based on 2022 methodology, across three years of reporting, 2020–2022.

- ⁴ Climate-related risks are scored between 0 and 1, based upon sustainability and climate risk transmission channels, as outlined in Appendix 3 to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors. Risk ratings represent a range of scores across five risk-rating categories: low, moderately low, moderate, moderately high, and high. The climate-sensitive exposure metrics are determined based upon the top three out of five rated categories: high to moderate.
- ⁵ Such as, but not limited to, Investment Bank Global Banking bonds issued under the voluntary ICMA Green Bond Principles, Sustainability Bond Principles, and Sustainability-Linked Bond Principles. The principles include a recommendation that the issuer appoints an external review provider to undertake an independent external review (e.g., second-party opinion). This is consistent with market practice.
- ⁶ This excludes proposals related to Japanese companies that included changes to the companies’ articles of association. The 2022 and 2021 numbers include shareholder and management proposals, the 2020 number shareholder proposals only. This reflects the increasingly common market practice of climate-related proposals being presented by management.
- ⁷ Net greenhouse gas (GHG) footprint equals gross GHG emissions minus GHG reductions from renewable electricity and CO₂e offsets (gross GHG emissions include: direct GHG emissions by UBS; indirect GHG emissions associated with the generation of imported / purchased electricity (grid average emission factor), heat or steam; and other indirect GHG emissions associated with business travel, paper consumption and waste disposal). A breakdown of our GHG emissions (scopes 1, 2 and 3) is provided in Appendix 3 to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors.

Reporting to our stakeholders on our sustainability strategy and activities

Further information about our sustainability efforts and commitments is provided in our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors. The content of our Sustainability Report 2022 has been prepared in accordance with Global Reporting Initiative (GRI) standards and with the German rules implementing the EU Directive on disclosure of non-financial and diversity information (2014/95/EU). We also disclose data on climate-related financial risks, pertaining to the Swiss Financial Market Supervisory Authority’s (FINMA’s) disclosure requirements as set out in appendix 5 to FINMA Circular 2016/1 “Disclosure – banks.” Our reporting on sustainability has been reviewed on a limited assurance basis by Ernst & Young Ltd against the GRI standards.

- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for an overview of non-financial disclosures in accordance with the German rules implementing EU Directive 2014/95 and for information about UBS AG and UBS Europe SE disclosures pursuant to Art. 8 of the EU Taxonomy Regulation**

Regulation and supervision

As a financial services provider based in Switzerland, UBS is subject to consolidated supervision by the Swiss Financial Market Supervisory Authority (FINMA). Our entities are also regulated and supervised by authorities in each country where they conduct business. Through UBS AG and UBS Switzerland AG, both licensed as banks in Switzerland, UBS may engage in a full range of financial services activities in Switzerland and abroad, including personal banking, commercial banking, investment banking and asset management.

As a global systemically important bank (a G-SIB), as designated by the Financial Stability Board, and a systemically relevant bank (an SRB) in Switzerland, we are subject to stricter regulatory requirements and supervision than most other Swiss banks.

- **Refer to the “Our evolution” section of this report for more information**
- **Refer to the “Regulatory and legal developments” and “Risk factors” sections of this report for more information**

Regulation and supervision in Switzerland

Supervision

UBS Group AG and its subsidiaries are subject to consolidated supervision by FINMA under the Swiss Banking Act and related ordinances, which impose standards for matters such as minimum capital, liquidity, risk concentration and internal organization standards. FINMA meets its statutory supervisory responsibilities through licensing, regulation, supervision, and enforcement. It is responsible for prudential supervision and mandates audit firms to perform regulatory audits and other supervisory tasks on its behalf.

Capital adequacy and liquidity regulation

As an internationally active Swiss systemically important bank (SIB), we are subject to capital and total loss-absorbing capacity (TLAC) requirements that are based on both risk-weighted assets and the leverage ratio denominator, and are among the most stringent in the world. We are also subject to Swiss SIB liquidity requirements and to minimum long-term funding requirements.

- **Refer to the “Capital, liquidity and funding, and balance sheet” section of this report for more information about the Swiss SRB framework and the Swiss too-big-to-fail (TBTF) requirements**
- **Refer to “Liquidity coverage ratio” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information about liquidity coverage ratio requirements**

Regulation and supervision outside Switzerland

Regulation and supervision in the US

In the US, UBS is subject to regulation and supervision by the Board of Governors of the Federal Reserve System (the Federal Reserve Board) under a number of laws. UBS Group AG and UBS AG are both subject to the Bank Holding Company Act, pursuant to which the Federal Reserve Board has supervisory authority over the US operations of both UBS Group AG and UBS AG.

In addition to being a financial holding company under the Bank Holding Company Act, UBS AG has US branches, which are authorized and supervised by the Office of the Comptroller of the Currency (the OCC). UBS AG is registered as a swap dealer with the Commodity Futures Trading Commission (the CFTC) and as a securities-based swap dealer with the Securities and Exchange Commission (the SEC).

UBS Americas Holding LLC, the intermediate holding company for our operations in the US outside of the UBS AG branch network, as required under the Dodd–Frank Act, is subject to requirements established by the Federal Reserve Board related to risk-based capital, liquidity, the Comprehensive Capital Analysis and Review (CCAR) stress testing and capital planning process, and resolution planning and governance.

UBS Bank USA, a Federal Deposit Insurance Corporation (FDIC)-insured depository institution subsidiary, is licensed and regulated by state regulators in Utah and is also supervised by the FDIC.

UBS Financial Services Inc., UBS Securities LLC and several other US subsidiaries of UBS are subject to regulation by a number of different government agencies and self-regulatory organizations, including the SEC, the Financial Industry Regulatory Authority, the CFTC, the Municipal Securities Rulemaking Board and national securities exchanges, depending on the nature of their business. Certain of our activities in the US are subject to regulation by the Consumer Financial Protection Bureau.

Regulation and supervision in the UK

Our regulated UK operations are mainly subject to the authority of the Prudential Regulation Authority (the PRA), which is part of the Bank of England, and the Financial Conduct Authority (the FCA). We are also subject to the rules of the London Stock Exchange and other securities and commodities exchanges of which UBS AG is a member.

UBS AG has a UK-registered branch in London, which serves as a global booking center for our Investment Bank. Our regulated subsidiaries in the UK that provide asset management services are authorized and regulated mainly by the FCA, with one entity, UBS Asset Management Life Ltd, being also subject to the authority of the PRA.

Regulation and supervision in Germany / the EU

UBS Europe SE, headquartered in Germany, is subject to the direct supervision of the European Central Bank, as well as to continued conduct, consumer protection and anti-money-laundering-related supervision by the German Federal Financial Supervisory Authority (the BaFin) and supervisory support by the German Bundesbank. The entity is subject to EU and German laws and regulations. UBS Europe SE maintains branches in Denmark, France, Italy, Luxembourg, the Netherlands, Poland, Spain, Sweden and Switzerland, and is subject to conduct supervision by authorities in all those countries.

Regulation and supervision in Asia Pacific

We operate in 13 locations in Asia Pacific and are subject to regulation and supervision by local financial regulators. Our regional hubs are in Singapore and the Hong Kong SAR.

In Singapore, we conduct our operations primarily through UBS AG Singapore Branch and UBS Securities Pte. Ltd., which are supervised by the Monetary Authority of Singapore and the Singapore Exchange.

UBS AG Hong Kong Branch is primarily supervised by the Hong Kong Monetary Authority. UBS Securities Hong Kong Limited, UBS Securities Asia Limited and UBS Asset Management (Hong Kong) Limited are primarily supervised by the Hong Kong Securities and Futures Commission. In addition, UBS Securities Hong Kong Limited is supervised by the Hong Kong Stock Exchange and the Hong Kong Futures Exchange.

In mainland China, UBS has multiple licenses to operate its core business lines and the various UBS entities are subject to regulation by a number of different government agencies. The People's Bank of China oversees the macro capital markets policies and ensures coordinated supervisory approaches by the China Banking and Insurance Commission, the China Securities and Regulatory Commission, and the exchanges.

Financial crime prevention

Combating money laundering and terrorist financing has been a major focus of many governments in recent years. Laws and regulations, including the Swiss Banking Act and the US Bank Secrecy Act, require effective policies, procedures and controls to detect, prevent and report money laundering and terrorist financing, and the verification of client identities. Failure to introduce and maintain adequate programs to prevent money laundering and terrorist financing can result in significant legal and reputational risk and fines.

We are also subject to laws and regulations prohibiting corrupt or illegal payments to government officials and other persons, including the US Foreign Corrupt Practices Act and the UK Bribery Act. We maintain policies, procedures and internal controls intended to comply with those regulations.

- **Refer to “Non-financial risk” in the “Risk management and control” section of this report for more information**

Data protection

We are subject to regulations concerning the use and protection of customer, employee, and other personal and confidential information. This includes provisions under Swiss law, the EU General Data Protection Regulation (the GDPR) and laws of other jurisdictions.

- **Refer to the “Risk factors” section of this report for more information about regulatory change**

Recovery and resolution

Swiss TBTF legislation requires each Swiss SRB to establish an emergency plan to maintain systemic functions in case of impending insolvency. In response to these Swiss requirements, and similar ones in other jurisdictions, UBS has developed recovery plans and resolution strategies, as well as plans for restructuring or winding down businesses if the firm could not be stabilized otherwise.

In 2013, FINMA stated its preference for a single point of entry (an SPE) strategy for globally active SRBs, such as UBS, with a bail-in at the group holding-company level. UBS has made structural, financial and operational changes to facilitate an SPE strategy and is confident that a resolution of the bank is operationally executable and legally enforceable.

FINMA evaluates the recovery and resolution plans of Swiss SRBs on a regular basis. In its most recent assessment published in March 2022, FINMA re-confirmed that our Swiss emergency plan is effective and that our recovery plan was approved. Furthermore, FINMA acknowledged the continued progress we made toward achieving global resolvability.

UBS's crisis management framework

Our crisis management framework assigns responsibility and actions depending on the nature of the stress incident and the scale of the response needed.

- For incident, risk and crisis management, the Group Crisis Task Force works with incident management teams that provide monitoring and early-warning indicators at the local / regional level, without needing to activate protocols at the Group level. If a local response is insufficient, global task forces and crisis management teams provide decision-making guidance and coordination, including crisis management plans, protocols and playbooks, and contingency funding plans.
- The Group Executive Board (the GEB) and the Board of Directors (the BoD) would evaluate and decide upon the need to activate the Global Recovery Plan (the GRP) if a stress event reached a severity requiring such activation, based on the GRP's risk indicators.
- FINMA has the authority to determine whether the point of non-viability (PONV) as defined by Swiss law has been reached and, as part of the resolution strategy, has the power to order the bail-in of creditors to recapitalize and stabilize the Group, limit payments of dividends and interest, alter our legal structure, take actions to reduce business risk, and order a restructuring of the bank.

UBS crisis management framework





Global Recovery Plan

The GRP provides a tool to restore financial strength if UBS comes under severe capital and liquidity stress. Quantitative and qualitative triggers are monitored daily and are subject to predefined governance and escalation processes. Recovery options are linked to owners and checklists, with the objectives of preserving capital, raising capital or liquidity, or disposing of or winding down businesses.

Global Resolution Strategy

FINMA is required to produce a global resolution plan for UBS. The plan includes setting out measures that FINMA can take to resolve UBS in an orderly manner if the Group enters into resolution. The SPE bail-in strategy would involve writing down the Group's remaining equity and additional tier 1 and tier 2 instruments, as well as bail-in of total TLAC-eligible senior unsecured bonds at the UBS Group AG level. An internal recapitalization of undercapitalized subsidiaries would be made simultaneously with losses transmitted to UBS AG and, ultimately, UBS Group AG. Post-resolution restructuring measures could include disposal and winding down of businesses and assets.

Local recovery and resolution plans

The Swiss emergency plan demonstrates how UBS's systemically important functions and critical operations in Switzerland can continue if the UBS Group cannot be restructured. This is achieved mainly by holding UBS Switzerland AG as a separate legal entity and maintaining sufficient capital and liquidity to ensure its continued operation. FINMA considers the plan to be effective.

The US resolution plan sets out the steps that could be taken to resolve the UBS Americas Holding LLC group if it suffered material financial distress and the UBS Group was unable or unwilling to provide financial support. As required by US regulations, our US plan contemplates that UBS Americas Holding LLC will commence US bankruptcy proceedings. Prior to this, the plan envisages UBS Americas Holding LLC down-streaming financial resources to subsidiaries to facilitate orderly wind-down or disposal of businesses.

UBS Europe SE develops a local recovery plan annually based on European Central Bank (ECB) requirements, and resolution planning information and capabilities based on Single Resolution Board requirements. On the basis of such information the Internal Resolution Team (IRT), composed of members of the Single Resolution Board, produces a resolution plan for UBS Europe SE.

Other local recovery and resolution plans exist for various Group entities and jurisdictions.

Regulatory and legal developments

Developments regarding prudential matters

In March 2022, the Swiss Financial Market Supervisory Authority (FINMA) presented its annual assessment of the recovery and resolution plans of systemically important financial institutions in Switzerland as part of the too-big-to-fail framework. In its report, FINMA acknowledged the further progress that UBS has made with regard to its global resolvability by significantly reducing the remaining obstacles to the implementation of its resolution strategy and making further improvements to its recovery plans. FINMA considered UBS's global recovery plan and Swiss emergency plan to be effective, while identifying certain areas for further improvement, which UBS is in the process of addressing.

In parallel, the Swiss Federal Council announced the key parameters for a public liquidity backstop in conjunction with the revision of the Swiss Liquidity Ordinance. The liquidity backstop would enable the Swiss government and the Swiss National Bank to support the liquidity of a Swiss systemically important bank (SIB) in the process of resolution. The introduction of the backstop is intended to increase the confidence of market participants in the ability of SIBs to become successfully recapitalized and remain solvent in a crisis situation. The Swiss Federal Department of Finance (the FDF) is expected to issue a public consultation by mid-2023.

In July 2022, the revision of the Swiss Liquidity Ordinance became effective, which increases the regulatory minimum liquidity requirements for SIBs from 1 January 2024. The specific increase for UBS remains uncertain pending supervisory guidance from FINMA, which is expected to be communicated to the firm in the autumn of 2023. Related new and revised regulatory reporting requirements became effective from the fourth quarter of 2022 onward.

In November 2022, the Swiss Federal Council adopted the amendments to the Banking Act and the Banking Ordinance, which entered into force as of 1 January 2023. The amendments enact insolvency provisions for banks into statutory law and strengthen the deposit insurance framework. They also replace the current resolvability discount on the gone concern capital requirements for SIBs, including UBS, with a reduced base gone concern capital requirement. In addition, FINMA has the authority to impose a surcharge of up to 25% of the base gone concern capital requirement should obstacles to a SIB's resolvability be identified in future resolvability assessments. We currently expect that our total gone concern requirements will remain substantially unchanged in the first quarter of 2023 because of these changes.

In December 2022, the Swiss State Secretariat for International Finance changed the expected date on which the final Basel III guidelines are to enter into force, from 1 July 2024 to 1 January 2025. As a result, the Swiss implementation timeline would be aligned to the currently expected implementation timeline in the EU. We currently estimate that the revised Basel III framework would lead to a further net increase in risk-weighted assets (RWA) of around USD 12bn, before taking into account mitigating actions and not reflecting the impact of the output floor, which is phased in over time. Our estimate includes the finalization of the Basel III framework, as well as the Fundamental Review of the Trading Book, based on our current understanding of the relevant standards. It may change as a result of new or updated regulatory interpretations, appropriate conservatism in model calibration, the implementation of Basel III standards into national law, changes in business growth, market conditions and other factors. The final degree of alignment between the Swiss implementation and those in other jurisdictions, particularly those regarding the treatment of historical operational losses, remains uncertain at this stage.

In the US, the Securities and Exchange Commission (the SEC) has proposed a number of significant new and revised regulations, including, among others, proposals that would significantly change order execution rules in US public equity markets and new disclosure requirements relating to climate, cybersecurity and share repurchases, as well as changes relating to investment companies and investment advisors. On 15 February 2023, the SEC approved rule changes to shorten the settlement cycle for US markets to trade date +1, with the compliance date set as 28 May 2024.

US banking regulators are expected to adopt rules that would substantially change how banks' service to low-income and underserved communities is evaluated under the Community Reinvestment Act, which, if adopted as currently proposed, would change measurement of this obligation for UBS Bank USA. The regulators further propose regulations to implement the remaining Basel III capital requirements, including the Fundamental Review of the Trading Book requirements. These requirements, when final, will affect UBS Americas Holding LLC.

The above proposals from the SEC and the US banking regulators represent a significant regulatory agenda, which, if completed in the near future, would likely require significant resources to implement.

Corporate taxation in Switzerland and the US

In December 2021, the Organisation for Economic Co-operation and Development (the OECD) issued Global Anti-Base Erosion Rules under the Pillar 2 framework. To address this, the Swiss Federal Council launched the consultation of the ordinance on the national implementation of a global minimum corporate tax rate in August 2022. The Federal Council has proposed a minimum tax rate of 15% for Swiss firms with global earnings above EUR 750m from January 2024. The OECD model rules will be transformed into Swiss national law following a constitutional amendment, which is subject to a mandatory referendum, expected by June 2023. We do not expect the proposed implementation of global minimum taxation in Switzerland to materially impact our effective tax rate.

As part of the Inflation Reduction Act (the IRA) passed by the US Congress in August 2022, a new corporate alternative minimum tax (CAMT) was introduced, with an effective date of 1 January 2023. CAMT is calculated as 15% of an entity's consolidated financial statement profits, without taking into account pre-2019 tax loss carry-forwards. As a result, the Group is expected to incur significant US current tax expenses, although these will be offset by the recognition of equivalent benefits in respect of deferred tax assets. There is no change to the Group's effective tax rate. CAMT will temporarily defer the accretion of profits to the Group's common equity tier 1 (CET1) capital, but the amount of such deferral is expected to be recaptured in the future through the use of CAMT credits. The 2022 impact on the accretion of CET1 capital would have been around USD 250m.

Sanctions related to the Russia–Ukraine war

During 2022, the Swiss Federal Council adopted the EU sanctions against Russia. Recently issued measures provide, among other things, a legal basis for the introduction of price caps for Russian crude oil and petroleum, and include a ban on the provision of certain services to the Russian government and Russian companies. UBS's sanctions programs are designed to comply with sanctions across multiple jurisdictions, including those imposed by the United Nations, Switzerland, the EU, the UK and the US.

Developments regarding environmental, social and governance matters

In 2022, environmental, social and governance (ESG) matters continued to evolve rapidly across different jurisdictions.

In June 2022, two new self-regulation minimum requirements were issued by the Swiss Bankers Association. One requirement sets standards for the consideration of sustainability criteria in the investment advisory process and the other regulates the mortgage advisory process. In parallel, the Swiss Federal Council launched the Swiss Climate Scores, which consist of six indicators that provide transparency regarding climate-related information, such as carbon emissions and the implied temperature increase of a portfolio.

In September 2022, the Swiss Parliament adopted a new federal law on climate protection, including provisions related to emission-reduction pathways and interim targets. The law provides the legal basis for measures to support the transition to net zero in different economic sectors, including the financial sector. Subject to a referendum that will take place in June 2023, the new law is expected to enter into force in 2024.

The Swiss Federal Council adopted a revised ordinance on climate-related disclosures in November 2022, which will be mandatory for large companies domiciled in Switzerland as of 1 January 2024. The ordinance makes reference to the recommendations of the Task Force on Climate-related Financial Disclosures (the TCFD) and sets disclosure requirements related to the plans for the transition to net zero and regarding climate-related impacts on a company's business activities. In parallel, FINMA has issued guidance on disclosures of climate-related financial risks and announced another review of climate-related disclosures in the course of 2023.

In December 2022, the Swiss Federal Council published a report on sustainability in the financial sector, in which it defined 15 measures planned to be implemented in the years 2023 to 2025. The measures aim to, among other things, ensure that more and better sustainability data is available from all sectors of the economy, in order to increase overall transparency. The Swiss government also adopted a position on greenwashing, stating that financial products or services should only be advertised as being sustainable if they are aligned with or contribute to at least one of the goals of the wider sustainability frameworks, such as the United Nations Sustainable Development Goals.

In January 2023, FINMA provided further guidance on the developments regarding the management of climate risks. FINMA reiterated its expectation that supervised institutions, including UBS, will establish adequate frameworks for managing climate-related financial risks that are adapted to the respective risk profile of the institution. In this context, FINMA expects the supervised financial institutions to proactively engage with the recommendations and guidance provided by international bodies, such as the BCBS and its Principles for the Effective Management and Supervision of Climate-Related Financial Risks issued in June 2023, as well as relevant best practices in the market, and to further develop their tools and processes where necessary.

In April 2022, the SEC proposed rules on climate-related disclosures. The proposed rules would require qualitative disclosures on climate risk management processes inclusive of governance, risk identification and scenario analyses, and quantitative disclosures on greenhouse gas emissions and financial statement impacts.

The European Commission (the EC) proposed draft legislation on corporate sustainability due diligence in February 2022, requiring companies to identify and, where necessary, prevent, end or mitigate adverse impacts of their activities on human rights and the environment. The EC also published a consultation aiming to gain a better understanding of the functioning of ESG ratings provided by specialized rating agencies.

In November 2022, the EU finalized the Corporate Sustainability Reporting Directive, which amends the reporting requirements of the 2014 Non-Financial Reporting Directive for all large companies and all companies listed on regulated markets in the EU. It requires the first companies, including UBS, to provide detailed information about sustainability matters in their annual financial reports from the 2024 fiscal year onward, including the impact of their business activities on sustainability matters and the influence of sustainability factors (e.g., climate change or human rights issues) on their business model, outlook and operations. The Swiss Federal Council decided to review the impact of the EU rules on Switzerland with a consultation planned for July 2024 at the latest.

On a global level, the International Sustainability Standards Board (the ISSB) launched a consultation in March 2022 on two of its proposed standards: one defining general sustainability-related disclosure requirements and the other specifying climate-related disclosure requirements. Based on the results of this consultation, the ISSB decided to adopt disclosure standards on greenhouse gas emissions, to introduce scenarios for reporting on climate resilience and to identify climate-related risks and opportunities. The ISSB is expected to finalize its standards by June 2023.

We expect to implement the standards and requirements that are applicable to us by their respective due dates.

FINMA revision of Circular 2008/21 “Operational risks and resilience – banks”

In December 2022, FINMA issued a revised “Operational risks and resilience – banks” circular that incorporates the BCBS's new Principles on Operational Resilience into the FINMA framework, including information and communication technology risk, cyber risk, critical data risk, business continuity management, cross-border business service risk, and the continuation of critical services during resolution and recovery. A two-year transition period has been granted for the implementation of the requirements on ensuring operational resilience, with the first elements on critical functions and disruption tolerance required to be in place by 1 January 2024 and the remaining elements in phases until 1 January 2026.

Swiss Federal Council approval of the revised Anti-Money Laundering Act

In August 2022, the Swiss Federal Council revised the Swiss Anti-Money Laundering Act and amended the Anti-Money Laundering Ordinance, which became effective on 1 January 2023. Among other things, the revised provisions will affect reporting requirements, as well as requirements to periodically review all clients and client data.

Risk factors

Certain risks, including those described below, may affect our ability to execute our strategy or our business activities, financial condition, results of operations and prospects. We are inherently exposed to multiple risks, many of which may become apparent only with the benefit of hindsight. As a result, risks that we do not consider to be material, or of which we are not currently aware, could also adversely affect us. Within each category, the risks that we consider to be most material are presented first.

Market, credit and macroeconomic risks

Performance in the financial services industry is affected by market conditions and the macroeconomic climate

Our businesses are materially affected by market and macroeconomic conditions. A market downturn and weak macroeconomic conditions can be precipitated by a number of factors, including geopolitical events, such as international armed conflicts, war, or acts of terrorism, the imposition of sanctions, global trade or global supply chain disruptions, including energy shortages and food insecurity, changes in monetary or fiscal policy, changes in trade policies or international trade disputes, significant inflationary or deflationary price changes, disruptions in one or more concentrated economic sectors, natural disasters, pandemics or local and regional civil unrest. Such developments can have unpredictable and destabilizing effects.

Adverse changes in interest rates, credit spreads, securities prices, market volatility and liquidity, foreign exchange rates, commodity prices, and other market fluctuations, as well as changes in investor sentiment, can affect our earnings and ultimately our financial and capital positions. As financial markets are global and highly interconnected, local and regional events can have widespread effects well beyond the countries in which they occur. Any of these developments may adversely affect our business or financial results.

As a result of significant volatility in the market, our businesses may experience a decrease in client activity levels and market volumes, which would adversely affect our ability to generate transaction fees, commissions and margins, particularly in Global Wealth Management and the Investment Bank. A market downturn would likely reduce the volume and valuation of assets that we manage on behalf of clients, which would reduce recurring fee income that is charged based on invested assets, primarily in Global Wealth Management and Asset Management, and performance-based fees in Asset Management. Such a downturn could also cause a decline in the value of assets that we own and account for as investments or trading positions. In addition, reduced market liquidity or volatility may limit trading opportunities and may therefore reduce transaction-based income and may also impede our ability to manage risks.

Geopolitical events: For example, the Russia–Ukraine war has led to one of the largest humanitarian crises in decades, with millions of people displaced, a mass exodus of businesses from Russia, and heightened volatility across global markets. In addition, as a result of the war, several jurisdictions, including the US, the EU, the UK, Switzerland and others, have imposed extensive sanctions on Russia and Belarus and certain Russian and Belarusian entities and nationals, as well as the Russian Central Bank. Among others, the financial sanctions include barring certain Russian banks from using the Society for Worldwide Interbank Financial Telecommunication (SWIFT) messaging system, asset freezes for sanctioned individuals and corporations, limits on financial transactions with sanctioned entities and individuals, and limitation of deposits in the EU and Switzerland from Russian persons not entitled to residency in the European Economic Area (the EEA) or Switzerland. The scale of the conflict and the speed and extent of sanctions may produce many of the effects described in the paragraph above, including in ways that cannot now be anticipated.

If individual countries impose restrictions on cross-border payments or trade, or other exchange or capital controls, or change their currency (for example, if one or more countries should leave the Eurozone, as a result of the imposition of sanctions on individuals, entities or countries, or escalation of trade restrictions and other actions between the US, or other countries, and China), we could suffer adverse effects on our business, losses from enforced default by counterparties, be unable to access our own assets or be unable to effectively manage our risks.

We could be materially affected if a crisis develops, regionally or globally, as a result of disruptions in markets due to macroeconomic or political developments, trade restrictions, or the failure of a major market participant. Over time, our strategic plans have become more heavily dependent on our ability to generate growth and revenue in emerging markets, including China, causing us to be more exposed to the risks associated with such markets.

Global Wealth Management derives revenues from all the principal regions, but has a greater concentration in Asia than many peers and a substantial presence in the US, unlike many European peers. The Investment Bank's business is more heavily weighted to Europe and Asia than our peers, while its derivatives business is more heavily weighted to structured products for wealth management clients, in particular with European and Asian underlyings. Our performance may therefore be more affected by political, economic and market developments in these regions and businesses than some other financial service providers.

COVID-19 pandemic: The COVID-19 pandemic, the governmental measures taken to manage it, and related effects, such as labor market displacements, supply chain disruptions, and inflationary pressures, have adversely affected, and may still adversely affect, global and regional economic conditions, resulting in contraction in the global economy, substantial volatility in the financial markets, crises in markets for goods and services, as well as significant disruptions in certain regional real estate markets, increased unemployment, increased credit and counterparty risk, and operational challenges. While in most jurisdictions the pandemic-related governmental measures were reversed, resurgence of the pandemic, ineffectiveness of vaccines and continuance or imposition of new pandemic control measures may result in additional adverse effects on the global economy negatively affecting UBS's results of operations and financial condition. Should inflationary pressures or other adverse global market conditions persist, or should the pandemic lead to additional economic or market disruptions, we may experience reduced levels of client activity and demand for our products and services, increased utilization of lending commitments, significantly increased client defaults, continued and increasing credit and valuation losses in our loan portfolios, loan commitments and other assets, and impairments of other financial assets. A fall in equity markets and a consequent decline in invested assets would also reduce recurring fee income in our Global Wealth Management and Asset Management businesses, as UBS experienced in the second quarter of 2022. These factors and other consequences of the COVID-19 pandemic may negatively affect our financial condition, including possible constraints on capital and liquidity, as well as a higher cost of capital, and possible downgrades to our credit ratings.

The extent to which the pandemic, the ongoing Russia–Ukraine war, and current inflationary pressures and related adverse economic conditions affect our businesses, results of operations and financial condition, as well as our regulatory capital and liquidity ratios, will depend on future developments, including the effects of the current conditions on our clients, counterparties, employees and third-party service providers.

Our credit risk exposure to clients, trading counterparties and other financial institutions would increase under adverse or other economic conditions

Credit risk is an integral part of many of our activities, including lending, underwriting and derivatives activities. Adverse economic or market conditions, or the imposition of sanctions or other restrictions on clients, counterparties or financial institutions, may lead to impairments and defaults on these credit exposures. Losses may be exacerbated by declines in the value of collateral securing loans and other exposures. In our prime brokerage, securities finance and Lombard lending businesses, we extend substantial amounts of credit against securities collateral, the value or liquidity of which may decline rapidly. Market closures and the imposition of exchange controls, sanctions or other measures may limit our ability to settle existing transactions or to realize on collateral, which may result in unexpected increases in exposures. Our Swiss mortgage and corporate lending portfolios are a large part of our overall lending. We are therefore exposed to the risk of adverse economic developments in Switzerland, including property valuations in the housing market, the strength of the Swiss franc and its effect on Swiss exports, return to negative interest rates applied by the Swiss National Bank, economic conditions within the Eurozone or the EU, and the evolution of agreements between Switzerland and the EU or EEA, which represent Switzerland's largest export market. We have exposures related to real estate in various countries, including a substantial Swiss mortgage portfolio. Although we believe this portfolio is prudently managed, we could nevertheless be exposed to losses if a substantial deterioration in the Swiss real estate market were to occur.

As we experienced in 2020, under the IFRS 9 expected credit loss (ECL) regime, credit loss expenses may increase rapidly at the onset of an economic downturn as a result of higher levels of credit impairments (stage 3), as well as higher ECL from stages 1 and 2. Substantial increases in ECL could exceed expected loss for regulatory capital purposes and adversely affect our common equity tier 1 (CET1) capital and regulatory capital ratios.

Interest rate trends and changes could negatively affect our financial results

UBS's businesses are sensitive to changes in interest rate trends. A prolonged period of low or negative interest rates, particularly in Switzerland and the Eurozone, adversely affected the net interest income generated by UBS's Personal & Corporate Banking and Global Wealth Management businesses prior to 2022. Actions that UBS took to mitigate adverse effects on income, such as the introduction of selective deposit fees or minimum lending rates, contributed to outflows of customer deposits (a key source of funding for UBS), net new money outflows and a declining market share in its Swiss lending business.

During 2022, interest rates increased sharply in the US and most other markets, including a shift from negative to positive central bank policy rates in the Eurozone and Switzerland, as central banks responded to higher inflation. Higher interest rates generally benefit UBS's net interest income. However, as returns on alternatives to deposits increase with rising interest rates, such as returns on money market funds, UBS has experienced outflows from customer deposits and shifts of deposits from lower-interest account types to accounts bearing higher interest rates, such as savings and certificates of deposit, particularly in the US, where rates have rapidly increased. Customer deposit outflows may require UBS to obtain alternative funding, which would likely be more costly than customer deposits.

Our shareholders' equity and capital are also affected by changes in interest rates.

Currency fluctuation may have an adverse effect on our profits, balance sheet and regulatory capital

We are subject to currency fluctuation risks. Although our change from the Swiss franc to the US dollar as our Group presentation currency in 2018 reduces our exposure to currency fluctuation risks with respect to the Swiss franc, a substantial portion of our assets and liabilities are denominated in currencies other than the US dollar. Additionally, in order to hedge our CET1 capital ratio, our CET1 capital must have foreign currency exposure, which leads to currency sensitivity. As a consequence, it is not possible to simultaneously fully hedge both the amount of capital and the capital ratio. Accordingly, changes in foreign exchange rates may adversely affect our profits, balance sheet, and capital, leverage and liquidity coverage ratios.

Regulatory and legal risks

Material legal and regulatory risks arise in the conduct of our business

As a global financial services firm operating in more than 50 countries, we are subject to many different legal, tax and regulatory regimes, including extensive regulatory oversight, and are exposed to significant liability risk. We are subject to a large number of claims, disputes, legal proceedings and government investigations, and we expect that our ongoing business activities will continue to give rise to such matters in the future. The extent of our financial exposure to these and other matters is material and could substantially exceed the level of provisions that we have established. We are not able to predict the financial and non-financial consequences these matters may have when resolved.

We may be subject to adverse preliminary determinations or court decisions that may negatively affect public perception and our reputation, result in prudential actions from regulators, and cause us to record additional provisions for such matters even when we believe we have substantial defenses and expect to ultimately achieve a more favorable outcome. This risk is illustrated by the award of aggregate penalties and damages of EUR 4.5bn by the court of first instance in France. This award was reduced to an aggregate of EUR 1.8bn by the Court of Appeal, and UBS has further appealed this judgment.

Resolution of regulatory proceedings may require us to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations, and may permit financial market utilities to limit, suspend or terminate our participation in them. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material adverse consequences for us.

Our settlements with governmental authorities in connection with foreign exchange, London Interbank Offered Rates (LIBOR) and other benchmark interest rates starkly illustrate the significantly increased level of financial and reputational risk now associated with regulatory matters in major jurisdictions. In connection with investigations related to LIBOR and other benchmark rates and to foreign exchange and precious metals, very large fines and disgorgement amounts were assessed against us, and we were required to enter guilty pleas despite our full cooperation with the authorities in the investigations, and despite our receipt of conditional leniency or conditional immunity from anti-trust authorities in a number of jurisdictions, including the US and Switzerland.

For a number of years, we have been, and we continue to be, subject to a very high level of regulatory scrutiny and to certain regulatory measures that constrain our strategic flexibility. We believe we have remediated the deficiencies that led to significant losses in the past and made substantial changes in our controls and conduct risk frameworks to address the issues highlighted by the LIBOR-related, foreign exchange and precious metals regulatory resolutions. We have also undertaken extensive efforts to implement new regulatory requirements and meet heightened expectations.

We continue to be in active dialogue with regulators concerning the actions we are taking to improve our operational risk management, risk control, anti-money laundering, data management and other frameworks, and otherwise seek to meet supervisory expectations, but there can be no assurance that our efforts will have the desired effects. As a result of this history, our level of risk with respect to regulatory enforcement may be greater than that of some of our peers.

Substantial changes in regulation may adversely affect our businesses and our ability to execute our strategic plans

Since the financial crisis of 2008, we have been subject to significant regulatory requirements, including recovery and resolution planning, changes in capital and prudential standards, changes in taxation regimes as a result of changes in governmental administrations, new and revised market standards and fiduciary duties, as well as new and developing environmental, social and governance standards and requirements. Notwithstanding attempts by regulators to align their efforts, the measures adopted or proposed for banking regulation differ significantly across the major jurisdictions, making it increasingly difficult to manage a global institution. In addition, Swiss regulatory changes with regard to such matters as capital and liquidity have often proceeded more quickly than those in other major jurisdictions, and Switzerland's requirements for major international banks are among the strictest of the major financial centers. This could put Swiss banks, such as UBS, at a disadvantage when competing with peer financial institutions subject to more lenient regulation or with unregulated non-bank competitors.

Our implementation of additional regulatory requirements and changes in supervisory standards, as well as our compliance with existing laws and regulations, continue to receive heightened scrutiny from supervisors. If we do not meet supervisory expectations in relation to these or other matters, or if additional supervisory or regulatory issues arise, we would likely be subject to further regulatory scrutiny, as well as measures that may further constrain our strategic flexibility.

Resolvability and resolution and recovery planning: We have moved significant operations into subsidiaries to improve resolvability and meet other regulatory requirements, and this has resulted in substantial implementation costs, increased our capital and funding costs and reduced operational flexibility. For example, we have transferred all of our US subsidiaries under a US intermediate holding company to meet US regulatory requirements, and have transferred substantially all the operations of Personal & Corporate Banking and Global Wealth Management booked in Switzerland to UBS Switzerland AG to improve resolvability.

These changes create operational, capital, liquidity, funding and tax inefficiencies. Our operations in subsidiaries are subject to local capital, liquidity, stable funding, capital planning and stress testing requirements. These requirements have resulted in increased capital and liquidity requirements in affected subsidiaries, which limit our operational flexibility and negatively affect our ability to benefit from synergies between business units and to distribute earnings to the Group.

Under the Swiss too-big-to-fail (TBTF) framework, we are required to put in place viable emergency plans to preserve the operation of systemically important functions in the event of a failure. Moreover, under this framework and similar regulations in the US, the UK, the EU and other jurisdictions in which we operate, we are required to prepare credible recovery and resolution plans detailing the measures that would be taken to recover in a significant adverse event or in the event of winding down the Group or the operations in a host country through resolution or insolvency proceedings. If a recovery or resolution plan that we produce is determined by the relevant authority to be inadequate or not credible, relevant regulation may permit the authority to place limitations on the scope or size of our business in that jurisdiction, or oblige us to hold higher amounts of capital or liquidity or to change our legal structure or business in order to remove the relevant impediments to resolution.

Capital and prudential standards: As an internationally active Swiss systemically relevant bank (an SRB), we are subject to capital and total loss-absorbing capacity (TLAC) requirements that are among the most stringent in the world. Moreover, many of our subsidiaries must comply with minimum capital, liquidity and similar requirements and, as a result, UBS Group AG and UBS AG have contributed a significant portion of their capital and provide substantial liquidity to these subsidiaries. These funds are available to meet funding and collateral needs in the relevant entities, but are generally not readily available for use by the Group as a whole.

We expect our risk-weighted assets (RWA) to further increase as the effective date for additional capital standards promulgated by the Basel Committee on Banking Supervision (the BCBS) draws nearer.

Increases in capital and liquidity standards could significantly curtail our ability to pursue strategic opportunities or to return capital to shareholders.

Market regulation and fiduciary standards: Our wealth and asset management businesses operate in an environment of increasing regulatory scrutiny and changing standards with respect to fiduciary and other standards of care and the focus on mitigating or eliminating conflicts of interest between a manager or advisor and the client, which require effective implementation across the global systems and processes of investment managers and other industry participants. For example, we have made material changes to our business processes, policies and the terms on which we interact with these clients in order to comply with SEC Regulation Best Interest, which is intended to enhance and clarify the duties of brokers and investment advisers to retail customers, the Volcker Rule, which limits our ability to engage in proprietary trading, as well as changes in European and Swiss market conduct regulation. Future changes in the regulation of our duties to customers may require us to make further changes to our businesses, which would result in additional expense and may adversely affect our business. We may also become subject to other similar regulations substantively limiting the types of activities in which we may engage or the way we conduct our operations.

In many instances, we provide services on a cross-border basis, and we are therefore sensitive to barriers restricting market access for third-country firms. In particular, efforts in the EU to harmonize the regime for third-country firms to access the European market may have the effect of creating new barriers that adversely affect our ability to conduct business in these jurisdictions from Switzerland. In addition, a number of jurisdictions are increasingly regulating cross-border activities based on determinations of equivalence of home country regulation, substituted compliance or similar principles of comity. A negative determination with respect to Swiss equivalence could limit our access to the market in those jurisdictions and may negatively influence our ability to act as a global firm. For example, the EU declined to extend its equivalence determination for Swiss exchanges, which lapsed as of 30 June 2019.

UBS experienced cross-border outflows over a number of years as a result of heightened focus by fiscal authorities on cross-border investment and fiscal amnesty programs, in anticipation of the implementation in Switzerland of the global automatic exchange of tax information, and as a result of the measures UBS has implemented in response to these changes. Further changes in local tax laws or regulations and their enforcement, additional cross-border tax information exchange regimes, national tax amnesty or enforcement programs or similar actions may affect our clients' ability or willingness to do business with us and could result in additional cross-border outflows.

If we experience financial difficulties, FINMA has the power to open restructuring or liquidation proceedings or impose protective measures in relation to UBS Group AG, UBS AG or UBS Switzerland AG, and such proceedings or measures may have a material adverse effect on our shareholders and creditors

Under the Swiss Banking Act, FINMA is able to exercise broad statutory powers with respect to Swiss banks and Swiss parent companies of financial groups, such as UBS Group AG, UBS AG and UBS Switzerland AG, if there is justified concern that the entity is over-indebted, has serious liquidity problems or, after the expiration of any relevant deadline, no longer fulfills capital adequacy requirements. Such powers include ordering protective measures, instituting restructuring proceedings (and exercising any Swiss resolution powers in connection therewith), and instituting liquidation proceedings, all of which may have a material adverse effect on shareholders and creditors or may prevent UBS Group AG, UBS AG or UBS Switzerland AG from paying dividends or making payments on debt obligations.

UBS would have limited ability to challenge any such protective measures, and creditors and shareholders would also have limited ability under Swiss law or in Swiss courts to reject them, seek their suspension, or challenge their imposition, including measures that require or result in the deferment of payments.

If restructuring proceedings are opened with respect to UBS Group AG, UBS AG or UBS Switzerland AG, the resolution powers that FINMA may exercise include the power to: (i) transfer all or some of the assets, debt and other liabilities, and contracts of the entity subject to proceedings to another entity; (ii) stay for a maximum of two business days (a) the termination of, or the exercise of rights to terminate, netting rights, (b) rights to enforce or dispose of certain types of collateral or (c) rights to transfer claims, liabilities or certain collateral, under contracts to which the entity subject to proceedings is a party; and / or (iii) partially or fully write down the equity capital and regulatory capital instruments and, if such regulatory capital is fully written down, write down or convert into equity the other debt instruments of the entity subject to proceedings. Shareholders and creditors would have no right to reject, or to seek the suspension of, any restructuring plan pursuant to which such resolution powers are exercised. They would have only limited rights to challenge any decision to exercise resolution powers or to have that decision reviewed by a judicial or administrative process or otherwise.

Upon full or partial write-down of the equity and regulatory capital instruments of the entity subject to restructuring proceedings, the relevant shareholders and creditors would receive no payment in respect of the equity and debt that is written down, the write-down would be permanent, and the investors would likely not, at such time or at any time thereafter, receive any shares or other participation rights, or be entitled to any write-up or any other compensation in the event of a potential subsequent recovery of the debtor. If FINMA orders the conversion of debt of the entity subject to restructuring proceedings into equity, the securities received by the investors may be worth significantly less than the original debt and may have a significantly different risk profile. In addition, creditors receiving equity would be effectively subordinated to all creditors of the restructured entity in the event of a subsequent winding up, liquidation or dissolution of the restructured entity, which would increase the risk that investors would lose all or some of their investment.

FINMA has significant discretion in the exercise of its powers in connection with restructuring proceedings. Furthermore, certain categories of debt obligations, such as certain types of deposits, are subject to preferential treatment. As a result, holders of obligations of an entity subject to a Swiss restructuring proceeding may have their obligations written down or converted into equity even though obligations ranking on par with such obligations are not written down or converted.

Developments in sustainability, climate, environmental and social standards and regulations may affect our business and impact our ability to fully realize our goals

We have set ambitious goals for environmental, social and governance (ESG) matters. These goals include our ambitions for environmental sustainability in our operations, including carbon emissions, in the business we do with clients and in products that we offer. They also include goals or ambitions for diversity in our workforce and supply chain, and support for the United Nations Sustainable Development Goals. There is substantial uncertainty as to the scope of actions that may be required of us, governments and others to achieve the goals we have set, and many of our goals and objectives are only achievable with a combination of government and private action. National and international standards and expectations, industry and scientific practices, and regulatory taxonomies and disclosure obligations addressing these matters are relatively immature and are rapidly evolving. In many cases, goals and standards are defined at a high level and can be subject to different interpretations. In addition, there are significant limitations in the data available to measure our climate and other goals. Although we have defined and disclosed our goals based on the standards existing at the time of disclosure, there can be no assurance (i) that the various ESG regulatory and disclosure regimes under which we operate will not come into conflict with one another, (ii) that the current standards will not be interpreted differently than our understanding or change in a manner that substantially increases the cost or effort for us to achieve such goals or (iii) that additional data or methods, whether voluntary or required by regulation, may substantially change our calculation of our goals and aspirations. It is possible that such goals may prove to be considerably more difficult or even impossible to achieve. The evolving standards may also require us to substantially change the stated goals and ambitions. If we are not able to achieve the goals we have set, or can only do so at significant expense to our business, we may fail to meet regulatory expectations, incur damage to our reputation or be exposed to an increased risk of litigation or other adverse action.

While ESG regulatory regimes and international standards are being developed, including to require consideration of ESG risks in investment decisions, some jurisdictions, notably in the US, have developed rules restricting the consideration of ESG factors in investment and business decisions. Under these anti-ESG rules, companies that are perceived as boycotting or discriminating against certain industries may be restricted from doing business with certain governmental entities. Our businesses may be adversely affected if UBS is considered as discriminating against companies based on ESG considerations, or if further anti-ESG rules are developed or broadened.

Our financial results may be negatively affected by changes to assumptions and valuations, as well as changes to accounting standards

We prepare our consolidated financial statements in accordance with International Financial Reporting Standards (IFRS). The application of these accounting standards requires the use of judgment based on estimates and assumptions that may involve significant uncertainty at the time they are made. This is the case, for example, with respect to the measurement of fair value of financial instruments, the recognition of deferred tax assets (DTAs), the assessment of the impairment of goodwill, expected credit losses and estimation of provisions for litigation, regulatory and similar matters. Such judgments, including the underlying estimates and assumptions, which encompass historical experience, expectations of the future and other factors, are regularly evaluated to determine their continuing relevance based on current conditions. Using different assumptions could cause the reported results to differ. Changes in assumptions, or failure to make the changes necessary to reflect evolving market conditions, may have a significant effect on the financial statements in the periods when changes occur. Estimates of provisions may be subject to a wide range of potential outcomes and significant uncertainty. For example, the broad range of potential outcomes in our legal proceedings in France and in the US relating to residential mortgage-backed securities increase the uncertainty associated with assessing the appropriate provision. If the estimates and assumptions in future periods deviate from the current outlook, our financial results may also be negatively affected.

Changes to IFRS or interpretations thereof may cause future reported results and financial position to differ from current expectations, or historical results to differ from those previously reported due to the adoption of accounting standards on a retrospective basis. Such changes may also affect our regulatory capital and ratios. For example, the introduction of the ECL regime under IFRS 9 in 2018 fundamentally changed how credit risk arising from loans, loan commitments, guarantees and certain revocable facilities is accounted for. Under the ECL regime, credit loss expenses may increase rapidly at the onset of an economic downturn as a result of higher levels of credit impairments (stage 3), as well as higher ECL from stages 1 and 2, only gradually diminishing once the economic outlook improves. As we observed in 2020, this effect may be more pronounced in a deteriorating economic environment. Substantial increases in ECL could exceed expected loss for regulatory capital purposes and adversely affect our CET1 capital and regulatory capital ratios.

We may be unable to maintain our capital strength

Capital strength enables us to grow our businesses and absorb increases in regulatory and capital requirements. It reassures our clients and stakeholders, allows us to maintain our capital return policy and contributes to our credit ratings. Our capital and leverage ratios are driven primarily by RWA, the leverage ratio denominator and eligible capital, all of which may fluctuate based on a number of factors, some of which are outside of our control. Our ability to maintain our capital ratios is subject to numerous risks, including the financial results of our businesses, the effect of changes to capital standards, methodologies and interpretations that may adversely affect the calculation of our capital ratios, the imposition of risk add-ons or capital buffers, and the application of additional capital, liquidity and similar requirements to subsidiaries. The results of our businesses may be adversely affected by events arising from other risk factors described herein. In some cases, such as litigation and regulatory risk and operational risk events, losses may be sudden and large. These risks could reduce the amount of capital available for return to shareholders and hinder our ability to achieve our capital returns target of a progressive cash dividend coupled with a share repurchase program.

Our eligible capital may be reduced by losses recognized within net profit or other comprehensive income. Eligible capital may also be reduced for other reasons, including acquisitions that change the level of goodwill, changes in temporary differences related to DTAs included in capital, adverse currency movements affecting the value of equity, prudential adjustments that may be required due to the valuation uncertainty associated with certain types of positions, changes in regulatory interpretations on the inclusion or exclusion of items contributing to our shareholders equity in regulatory capital, and changes in the value of certain pension fund assets and liabilities or in the interest rate and other assumptions used to calculate the changes in our net defined benefit obligation recognized in other comprehensive income.

RWA are driven by our business activities, by changes in the risk profile of our exposures, by changes in our foreign currency exposures and foreign exchange rates, and by regulation. For instance, substantial market volatility, a widening of credit spreads, adverse currency movements, increased counterparty risk, deterioration in the economic environment or increased operational risk could result in an increase in RWA. Changes in the calculation of RWA, the imposition of additional supplemental RWA charges or multipliers applied to certain exposures and other methodology changes, as well as the finalization of the Basel III framework and Fundamental Review of the Trading Book promulgated by the BCBS, which are expected to increase our RWA.

The leverage ratio is a balance sheet-driven measure and therefore limits balance sheet-intensive activities, such as lending, more than activities that are less balance sheet intensive, and it may constrain our business even if we satisfy other risk-based capital requirements. Our leverage ratio denominator is driven by, among other things, the level of client activity, including deposits and loans, foreign exchange rates, interest rates and other market factors. Many of these factors are wholly or partly outside of our control.

The effect of taxes on our financial results is significantly influenced by tax law changes and reassessments of our deferred tax assets

Our effective tax rate is highly sensitive to our performance, our expectation of future profitability and any potential increases or decreases in statutory tax rates, such as any potential increase in the US federal corporate tax rate. Furthermore, based on prior years' tax losses, we have recognized DTAs reflecting the probable recoverable level based on future taxable profit as informed by our business plans. If our performance is expected to produce diminished taxable profit in future years, particularly in the US, we may be required to write down all or a portion of the currently recognized DTAs through the income statement in excess of anticipated amortization. This would have the effect of increasing our effective tax rate in the year in which any write-downs are taken. Conversely, if we expect the performance of entities in which we have unrecognized tax losses to improve, particularly in the US or the UK, we could potentially recognize additional DTAs. The effect of doing so would be to reduce our effective tax rate in years in which additional DTAs are recognized and to increase our effective tax rate in future years. Our effective tax rate is also sensitive to any future reductions in statutory tax rates, particularly in the US, which would cause the expected future tax benefit from items such as tax loss carry-forwards in the affected locations to diminish in value. This, in turn, would cause a write-down of the associated DTAs. Conversely, an increase in US corporate tax rates would result in an increase in the Group's DTAs.

We generally revalue our DTAs in the fourth quarter of the financial year based on a reassessment of future profitability taking into account our updated business plans. We consider the performance of our businesses and the accuracy of historical forecasts, tax rates and other factors in evaluating the recoverability of our DTAs, including the remaining tax loss carry-forward period and our assessment of expected future taxable profits over the life of DTAs. Estimating future profitability is inherently subjective and is particularly sensitive to future economic, market and other conditions, which are difficult to predict.

Our results in past years have demonstrated that changes in the recognition of DTAs can have a very significant effect on our reported results. Any future change in the manner in which UBS remeasures DTAs could affect UBS's effective tax rate, particularly in the year in which the change is made.

Our full-year effective tax rate could change if aggregate tax expenses in respect of profits from branches and subsidiaries without loss coverage differ from what is expected, or if branches and subsidiaries generate tax losses that we cannot benefit from through the income statement. In particular, losses at entities or branches that cannot offset for tax purposes taxable profits in other Group entities, and which do not result in additional DTA recognition, may increase our effective tax rate. In addition, tax laws or the tax authorities in countries where we have undertaken legal structure changes may cause entities to be subject to taxation as permanent establishments or may prevent the transfer of tax losses incurred in one legal entity to newly organized or reorganized subsidiaries or affiliates or may impose limitations on the utilization of tax losses that relate to businesses formerly conducted by the transferor. Were this to occur in situations where there were also limited planning opportunities to utilize the tax losses in the originating entity, the DTAs associated with such tax losses may be required to be written down through the income statement.

Changes in tax law may materially affect our effective tax rate, and, in some cases, may substantially affect the profitability of certain activities. In addition, statutory and regulatory changes, as well as changes to the way in which courts and tax authorities interpret tax laws, including assertions that we are required to pay taxes in a jurisdiction as a result of activities connected to that jurisdiction constituting a permanent establishment or similar theory, and changes in our assessment of uncertain tax positions, could cause the amount of taxes we ultimately pay to materially differ from the amount accrued.

Strategy, management and operational risks

Operational risks affect our business

Our businesses depend on our ability to process a large number of transactions, many of which are complex, across multiple and diverse markets in different currencies, to comply with requirements of many different legal and regulatory regimes to which we are subject and to prevent, or promptly detect and stop, unauthorized, fictitious or fraudulent transactions. We also rely on access to, and on the functioning of, systems maintained by third parties, including clearing systems, exchanges, information processors and central counterparties. Any failure of our or third-party systems could have an adverse effect on us. These risks may be greater as we deploy newer technologies, such as blockchain, or processes, platforms or products that rely on these technologies. Our operational risk management and control systems and processes are designed to help ensure that the risks associated with our activities – including those arising from process error, failed execution, misconduct, unauthorized trading, fraud, system failures, financial crime, cyberattacks, breaches of information security, inadequate or ineffective access controls and failure of security and physical protection – are appropriately controlled. If our internal controls fail or prove ineffective in identifying and remedying these risks, we could suffer operational failures that might result in material losses, such as the substantial loss we incurred from the unauthorized trading incident announced in September 2011.

As a significant proportion of our staff have been and will continue working from outside the office, we have faced, and will continue to face, new challenges and operational risks, including maintenance of supervisory and surveillance controls, as well as increased fraud and data security risks. While we have taken measures to manage these risks, such measures have never been tested on the scale or duration that we are currently experiencing, and there is risk that these measures will prove not to have been effective in the current unprecedented operating environment.

We use automation as part of our efforts to improve efficiency, reduce the risk of error and improve our client experience. We intend to expand the use of robotic processing, machine learning and artificial intelligence to further these goals. Use of these tools presents their own risks, including the need for effective design and testing; the quality of the data used for development and operation of machine learning and artificial intelligence tools may adversely affect their functioning and result in errors and other operational risks.

For financial institutions, cybersecurity risks have increased due to the widespread use of digital technologies, cloud computing and mobile devices to conduct financial business and transactions. In addition, cyberattacks by hackers, terrorists, criminal organizations, nation states and extremists have also increased in frequency and sophistication. Current geopolitical tensions have also led to increased risk of cyberattack from foreign state actors. In particular, the Russia–Ukraine war and the imposition of significant sanctions on Russia by Switzerland, the US, the EU, the UK and others has resulted and may continue to result in an increase in the risk of cyberattacks.

Financial services firms have increasingly been subject to breaches of security and to cyber- and other forms of attack, some of which are sophisticated and targeted attacks intended to gain access to confidential information or systems, disrupt service or steal or destroy data. These attacks may occur on our own systems or on the systems that are operated by external service providers, may be attempted through the introduction of “ransomware,” viruses or malware, phishing and other forms of social engineering, distributed denial of service attacks and other means. These attempts may occur directly, or using equipment or security passwords of our employees, third-party service providers or other users. In addition to external attacks, we have experienced loss of client data from failure by employees and others to follow internal policies and procedures and from misappropriation of our data by employees and others. We may not be able to anticipate, detect or recognize threats to our systems or data and our preventative measures may not be effective to prevent an attack or a security breach. In the event of a security breach, notwithstanding our preventative measures, we may not immediately detect a particular breach or attack. Once a particular attack is detected, time may be required to investigate and assess the nature and extent of the attack, and to restore and test systems and data. If a successful attack occurs at a service provider, as we have recently experienced, we may be dependent on the service provider’s ability to detect the attack, investigate and assess the attack and successfully restore the relevant systems and data. A successful breach or circumvention of security of our or a service provider’s systems or data could have significant negative consequences for us, including disruption of our operations, misappropriation of confidential information concerning us or our clients, damage to our systems, financial losses for us or our clients, violations of data privacy and similar laws, litigation exposure and damage to our reputation. We may be subject to enforcement actions as regulatory focus on cybersecurity increases and regulators have announced new rules, guidance and initiatives on ransomware and other cybersecurity-related issues.

We are subject to complex and frequently changing laws and regulations governing the protection of client and personal data, such as the EU General Data Protection Regulation. Ensuring that we comply with applicable laws and regulations when we collect, use and transfer personal information requires substantial resources and may affect the ways in which we conduct our business. In the event that we fail to comply with applicable laws, we may be exposed to regulatory fines and penalties and other sanctions. We may also incur such penalties if our vendors or other service providers or clients or counterparties fail to comply with these laws or to maintain appropriate controls over protected data. In addition, any loss or exposure of client or other data may adversely damage our reputation and adversely affect our business.

A major focus of US and other countries’ governmental policies relating to financial institutions in recent years has been on fighting money laundering and terrorist financing. We are required to maintain effective policies, procedures and controls to detect, prevent and report money laundering and terrorist financing, and to verify the identity of our clients under the laws of many of the countries in which we operate. We are also subject to laws and regulations related to corrupt and illegal payments to government officials by others, such as the US Foreign Corrupt Practices Act and the UK Bribery Act. We have implemented policies, procedures and internal controls that are designed to comply with such laws and regulations. Notwithstanding this, US regulators have found deficiencies in the design and operation of anti-money laundering programs in our US operations. We have undertaken a significant program to address these regulatory findings with the objective of fully meeting regulatory expectations for our programs. Failure to maintain and implement adequate programs to combat money laundering, terrorist financing or corruption, or any failure of our programs in these areas, could have serious consequences both from legal enforcement action and from damage to our reputation. Frequent changes in sanctions imposed and increasingly complex sanctions imposed on countries, entities and individuals, as exemplified by the breadth and scope of the sanctions imposed in relation to the war in Ukraine, increase our cost of monitoring and complying with sanctions requirements and increase the risk that we will not identify in a timely manner client activity that is subject to a sanction.

As a result of new and changed regulatory requirements and the changes we have made in our legal structure, the volume, frequency and complexity of our regulatory and other reporting has remained elevated. Regulators have also significantly increased expectations regarding our internal reporting and data aggregation, as well as management reporting. We have incurred, and continue to incur, significant costs to implement infrastructure to meet these requirements. Failure to meet external reporting requirements accurately and in a timely manner or failure to meet regulatory expectations of internal reporting, data aggregation and management reporting could result in enforcement action or other adverse consequences for us.

In addition, despite the contingency plans that we have in place, our ability to conduct business may be adversely affected by a disruption in the infrastructure that supports our businesses and the communities in which we operate. This may include a disruption due to natural disasters, pandemics, civil unrest, war or terrorism and involve electrical, communications, transportation or other services that we use or that are used by third parties with whom we conduct business.

We may not be successful in the ongoing execution of our strategic plans

We have transformed UBS to focus on our Global Wealth Management business and our universal bank in Switzerland, complemented by Asset Management and a significantly smaller and more capital-efficient Investment Bank; we have substantially reduced the risk-weighted assets and leverage ratio denominator usage in Group Functions; and made significant cost reductions. Our ongoing strategic initiatives focus on growing our business in the Americas and in Asia Pacific, particularly China, and investing in technology to differentiate our service to clients, and implementing an agile mode of work. These measures will require significant change in our organization and we may not succeed in executing our strategy or achieving our performance targets, or may be delayed in doing so. Macroeconomic conditions, geopolitical uncertainty, changes to regulatory requirements and the continuing costs of meeting these requirements have prompted us to adapt our targets and ambitions in the past and we may need to do so again in the future.

To achieve our strategic plans, we expect to continue to make significant expenditures on technology and infrastructure to improve client experience, improve and further enable digital offerings and increase efficiency. We also may seek to implement our strategy through acquisitions or strategic partnerships to expand or improve our product offerings or target additional client segments. Our investments in new technology and our acquisitions and strategic partnerships may not be successfully completed, fully achieve our objectives or improve our ability to attract and retain clients. In addition, we face competition in providing digitally enabled offerings from both existing competitors and new financial service providers in various portions of the value chain. For example, technological advances and the growth of e-commerce have made it possible for e-commerce firms and other companies to offer products and services that were traditionally offered only by banks. These advances have also allowed financial institutions and other companies to provide digitally based financial solutions, including electronic securities trading, payments processing and online automated algorithmic-based investment advice at a low cost to their clients. We may have to lower our prices, or risk losing clients as a result. Our ability to develop and implement competitive digitally enabled offerings and processes will be an important factor in our ability to compete.

As part of our strategy, we seek to improve our operating efficiency, in part by controlling our costs. We may not be able to identify feasible cost reduction opportunities that are consistent with our business goals and cost reductions may be realized later or may be smaller than we anticipate. Higher temporary and permanent regulatory costs and higher business demand than anticipated have partly offset cost reductions and delayed the achievement of our past cost reduction targets, and we could continue to be challenged in the execution of our ongoing efforts to improve operating efficiency.

Changes in our workforce as a result of outsourcing, nearshoring, offshoring, insourcing or staff reductions, or changes that arise from the introduction of work from home or other flexible ways of working or agile work methodologies may introduce new operational risks that, if not effectively addressed, could affect our ability to achieve cost and other benefits from such changes, or could result in operational losses.

As we implement effectiveness and efficiency programs, we may also experience unintended consequences, such as the unintended loss or degradation of capabilities that we need in order to maintain our competitive position, achieve our targeted returns or meet existing or new regulatory requirements and expectations.

We depend on our risk management and control processes to avoid or limit potential losses in our businesses

Controlled risk-taking is a major part of the business of a financial services firm. Some losses from risk-taking activities are inevitable, but to be successful over time, we must balance the risks we take against the returns generated. Therefore, we must diligently identify, assess, manage and control our risks, not only in normal market conditions but also as they might develop under more extreme, stressed conditions, when concentrations of exposures can lead to severe losses.

We have not always been able to prevent serious losses arising from risk management failures and extreme or sudden market events. We recorded substantial losses on fixed-income trading positions in the 2008 financial crisis, in the unauthorized trading incident in 2011 and, more recently, positions resulting from the default of a US prime brokerage client. We revise and strengthen our risk management and control frameworks to seek to address identified shortcomings. Nonetheless, we could suffer further losses in the future if, for example:

- we do not fully identify the risks in our portfolio, in particular risk concentrations and correlated risks;
- our assessment of the risks identified, or our response to negative trends, proves to be untimely, inadequate, insufficient or incorrect;
- our risk models prove insufficient to predict the scale of financial risks the bank faces;
- markets move in ways that we do not expect – in terms of their speed, direction, severity or correlation – and our ability to manage risks in the resulting environment is, therefore, affected;
- third parties to whom we have credit exposure or whose securities we hold are severely affected by events and we suffer defaults and impairments beyond the level implied by our risk assessment; or
- collateral or other security provided by our counterparties and clients proves inadequate to cover their obligations at the time of default.

We also hold legacy risk positions, primarily in Group Functions, that, in many cases, are illiquid and may again deteriorate in value.

We also manage risk on behalf of our clients. The performance of assets we hold for our clients may be adversely affected by the same aforementioned factors. If clients suffer losses or the performance of their assets held with us is not in line with relevant benchmarks against which clients assess investment performance, we may suffer reduced fee income and a decline in assets under management, or withdrawal of mandates.

Investment positions, such as equity investments made as part of strategic initiatives and seed investments made at the inception of funds that we manage, may also be affected by market risk factors. These investments are often not liquid and generally are intended or required to be held beyond a normal trading horizon. Deteriorations in the fair value of these positions would have a negative effect on our earnings.

We may not be successful in implementing changes in our wealth management businesses to meet changing market, regulatory and other conditions

We are exposed to possible outflows of client assets in our asset-gathering businesses and to changes affecting the profitability of Global Wealth Management, in particular. Initiatives that we may implement to overcome the effects of changes in the business environment on our profitability, balance sheet and capital positions may not succeed in counteracting those effects and may cause net new money outflows and reductions in client deposits, as happened with our balance sheet and capital optimization program in 2015. There is no assurance that we will be successful in our efforts to offset the adverse effect of these or similar trends and developments.

We may be unable to identify or capture revenue or competitive opportunities, or retain and attract qualified employees

The financial services industry is characterized by intense competition, continuous innovation, restrictive, detailed, and sometimes fragmented regulation and ongoing consolidation. We face competition at the level of local markets and individual business lines, and from global financial institutions that are comparable to us in their size and breadth, as well as competition from new technology-based market entrants, which may not be subject to the same level of regulation. Barriers to entry in individual markets and pricing levels are being eroded by new technology. We expect these trends to continue and competition to increase. Our competitive strength and market position could be eroded if we are unable to identify market trends and developments, do not respond to such trends and developments by devising and implementing adequate business strategies, do not adequately develop or update our technology, including our digital channels and tools, or are unable to attract or retain the qualified people needed.

The amount and structure of our employee compensation is affected not only by our business results, but also by competitive factors and regulatory considerations.

In response to the demands of various stakeholders, including regulatory authorities and shareholders, and in order to better align the interests of our staff with other stakeholders, we have increased average deferral periods for stock awards, expanded forfeiture provisions and, to a more limited extent, introduced clawback provisions for certain awards linked to business performance. We have also introduced individual caps on the proportion of fixed to variable pay for the Group Executive Board (GEB) members, as well as certain other employees.

Constraints on the amount or structure of employee compensation, higher levels of deferral, performance conditions and other circumstances triggering the forfeiture of unvested awards may adversely affect our ability to retain and attract key employees, particularly where we compete with companies that are not subject to these constraints. The loss of key staff and the inability to attract qualified replacements could seriously compromise our ability to execute our strategy and to successfully improve our operating and control environment, and could affect our business performance. Swiss law requires that shareholders approve the compensation of the Board of Directors (the BoD) and the GEB each year. If our shareholders fail to approve the compensation for the GEB or the BoD, this could have an adverse effect on our ability to retain experienced directors and our senior management.

Our reputation is critical to our success

Our reputation is critical to the success of our strategic plans, business and prospects. Reputational damage is difficult to reverse, and improvements tend to be slow and difficult to measure. In the past, our reputation has been adversely affected by our losses during the financial crisis, investigations into our cross-border private banking services, criminal resolutions of LIBOR-related and foreign exchange matters, as well as other matters. We believe that reputational damage as a result of these events was an important factor in our loss of clients and client assets across our asset-gathering businesses. New events that cause reputational damage could have a material adverse effect on our results of operation and financial condition, as well as our ability to achieve our strategic goals and financial targets.

As UBS Group AG is a holding company, its operating results, financial condition and ability to pay dividends and other distributions and / or to pay its obligations in the future depend on funding, dividends and other distributions received directly or indirectly from its subsidiaries, which may be subject to restrictions

UBS Group AG's ability to pay dividends and other distributions and to pay its obligations in the future will depend on the level of funding, dividends and other distributions, if any, received from UBS AG and other subsidiaries. The ability of such subsidiaries to make loans or distributions, directly or indirectly, to UBS Group AG may be restricted as a result of several factors, including restrictions in financing agreements and the requirements of applicable law and regulatory, fiscal or other restrictions. In particular, UBS Group AG's direct and indirect subsidiaries, including UBS AG, UBS Switzerland AG, UBS Americas Holding LLC and UBS Europe SE, are subject to laws and regulations that restrict dividend payments, authorize regulatory bodies to block or reduce the flow of funds from those subsidiaries to UBS Group AG, or could affect their ability to repay any loans made to, or other investments in, such subsidiary by UBS Group AG or another member of the Group. For example, in the early stages of the COVID-19 pandemic, the European Central Bank ordered all banks under its supervision to cease dividend distributions and the Federal Reserve Board has limited capital distributions by bank holding companies and intermediate holding companies. Restrictions and regulatory actions of this kind could impede access to funds that UBS Group AG may need to meet its obligations or to pay dividends to shareholders. In addition, UBS Group AG's right to participate in a distribution of assets upon a subsidiary's liquidation or reorganization is subject to all prior claims of the subsidiary's creditors.

Our capital instruments may contractually prevent UBS Group AG from proposing the distribution of dividends to shareholders, other than in the form of shares, and from engaging in repurchases of shares, if we do not pay interest on these instruments.

Furthermore, UBS Group AG may guarantee some of the payment obligations of certain of the Group's subsidiaries from time to time. These guarantees may require UBS Group AG to provide substantial funds or assets to subsidiaries or their creditors or counterparties at a time when UBS Group AG is in need of liquidity to fund its own obligations.

The credit ratings of UBS Group AG or its subsidiaries used for funding purposes could be lower than the ratings of the Group's operating subsidiaries, which may adversely affect the market value of the securities and other obligations of UBS Group AG or those subsidiaries on a standalone basis.

Liquidity and funding risk

Liquidity and funding management are critical to UBS's ongoing performance

The viability of our business depends on the availability of funding sources, and our success depends on our ability to obtain funding at times, in amounts, for tenors and at rates that enable us to efficiently support our asset base in all market conditions. Our funding sources have generally been stable, but could change in the future because of, among other things, general market disruptions or widening credit spreads, which could also influence the cost of funding. A substantial part of our liquidity and funding requirements are met using short-term unsecured funding sources, including retail and wholesale deposits and the regular issuance of money market securities. A change in the availability of short-term funding could occur quickly.

The addition of loss-absorbing debt as a component of capital requirements, the regulatory requirements to maintain minimum TLAC at UBS's holding company and at subsidiaries, as well as the power of resolution authorities to bail in TLAC instruments and other debt obligations, and uncertainty as to how such powers will be exercised, caused and may still cause further increase of our cost of funding, and could potentially increase the total amount of funding required, in the absence of other changes in our business.

Reductions in our credit ratings may adversely affect the market value of the securities and other obligations and increase our funding costs, in particular with regard to funding from wholesale unsecured sources, and could affect the availability of certain kinds of funding. In addition, as experienced in connection with Moody's downgrade of UBS AG's long-term debt rating in June 2012, rating downgrades can require us to post additional collateral or make additional cash payments under trading agreements. Our credit ratings, together with our capital strength and reputation, also contribute to maintaining client and counterparty confidence, and it is possible that rating changes could influence the performance of some of our businesses.

The requirement to maintain a liquidity coverage ratio of high-quality liquid assets to estimated stressed short-term net cash outflows, and other similar liquidity and funding requirements, oblige us to maintain high levels of overall liquidity, limit our ability to optimize interest income and expense, make certain lines of business less attractive and reduce our overall ability to generate profits. In particular, UBS AG is subjected to increased liquidity coverage requirements under the direction of FINMA. The liquidity coverage ratio and net stable funding ratio requirements are intended to ensure that we are not overly reliant on short-term funding and that we have sufficient long-term funding for illiquid assets. The relevant calculations make assumptions about the relative likelihood and amount of outflows of funding and available sources of additional funding in market-wide and firm-specific stress situations. In an actual stress situation, however, our funding outflows could exceed the assumed amounts.

Financial and operating performance

Management report

Accounting and financial reporting

Critical accounting estimates and judgments

In preparing our financial statements in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (the IASB), we apply judgment and make estimates and assumptions that may involve significant uncertainty at the time they are made. We regularly reassess those estimates and assumptions, which encompass historical experience, expectations of the future and other pertinent factors, to determine their continuing relevance based on current conditions, and update them as necessary. Changes in estimates and assumptions may have significant effects on the financial statements. Furthermore, actual results may differ significantly from our estimates, which could result in significant losses to the Group, beyond what we expected or provided for.

Key areas involving a high degree of judgment and areas where estimates and assumptions are significant to the consolidated financial statements include:

- expected credit loss measurement;
- fair value measurement;
- income taxes;
- provisions and contingent liabilities;
- post-employment benefit plans;
- goodwill; and
- consolidation of structured entities.
 - **Refer to “Note 1a Material accounting policies” in the “Consolidated financial statements” section of this report for more information**
 - **Refer to the “Risk factors” section of this report for more information**

Group performance

Income statement

<i>USD m</i>	For the year ended			% change from 31.12.21
	31.12.22	31.12.21	31.12.20	
Net interest income	6,621	6,705	5,862	(1)
Other net income from financial instruments measured at fair value through profit or loss	7,517	5,850	6,960	28
Net fee and commission income	18,966	22,387	19,186	(15)
Other income	1,459	452	1,076	223
Total revenues	34,563	35,393	33,084	(2)
Credit loss expense / (release)	29	(148)	694	
Personnel expenses	17,680	18,387	17,224	(4)
General and administrative expenses	5,189	5,553	4,885	(7)
Depreciation, amortization and impairment of non-financial assets	2,061	2,118	2,126	(3)
Operating expenses	24,930	26,058	24,235	(4)
Operating profit / (loss) before tax	9,604	9,484	8,155	1
Tax expense / (benefit)	1,942	1,998	1,583	(3)
Net profit / (loss)	7,661	7,486	6,572	2
Net profit / (loss) attributable to non-controlling interests	32	29	15	11
Net profit / (loss) attributable to shareholders	7,630	7,457	6,557	2
Comprehensive income				
Total comprehensive income	3,167	5,119	8,312	(38)
Total comprehensive income attributable to non-controlling interests	18	13	36	39
Total comprehensive income attributable to shareholders	3,149	5,106	8,276	(38)

2022 compared with 2021

Results

In 2022, net profit attributable to shareholders increased by USD 173m, or 2%, to USD 7,630m, which included a net tax expense of USD 1,942m.

Operating profit before tax increased by USD 120m, or 1%, to USD 9,604m, reflecting lower operating expenses, partly offset by lower total revenues. Operating expenses decreased by USD 1,128m, or 4%, to USD 24,930m, which included positive foreign currency effects. This decrease was mainly driven by USD 707m lower personnel expenses and USD 364m lower general and administrative expenses. Net credit loss expenses were USD 29m, compared with net credit loss releases of USD 148m in the prior year. Total revenues decreased by USD 830m, or 2%, to USD 34,563m, which included negative foreign currency effects. Net fee and commission income decreased by USD 3,421m, partly offset by a USD 1,582m increase in total combined net interest income and other net income from financial instruments measured at fair value through profit or loss, as well as USD 1,007m higher other income.

Total revenues

Net interest income and other net income from financial instruments measured at fair value through profit or loss

Total combined net interest income and other net income from financial instruments measured at fair value through profit or loss increased by USD 1,582m to USD 14,137m.

Global Wealth Management increased by USD 1,014m to USD 6,355m, predominantly due to higher net interest income, mainly driven by an increase in deposit revenues, as rising interest rates led to higher deposit margins. This increase was partly offset by the effects of shifts to lower-margin products and higher interest rates paid to clients. In addition, loan revenues decreased, driven by lower loan margins.

The Investment Bank increased by USD 702m to USD 5,769m, mainly reflecting USD 803m higher net income in Financing, largely due to a loss of USD 861m incurred in the first half of 2021 on the default of a US-based client of our prime brokerage business. In addition, Derivatives & Solutions increased by USD 320m, driven by Rates and Foreign Exchange, which benefited from elevated volatility due to inflationary concerns and the actions of central banks, partly offset by decreases in Equity Derivatives and Credit revenues due to lower levels of client activity. The increases in Financing and Derivatives & Solutions were partly offset by a USD 409m decrease in Global Banking, mainly due to lower revenues in Leveraged Capital Markets.

Personal & Corporate Banking increased by USD 128m, predominantly driven by an increase in net interest income, mainly reflecting higher deposit revenues, as a result of rising interest rates. This increase was partly offset by a lower benefit from the Swiss National Bank deposit exemption and a decrease in deposit fees.

Group Functions recognized negative income of USD 649m, compared with negative income of USD 397m, mainly driven by higher funding costs related to deferred tax assets (DTAs) and capitalized software in Group Services and negative net effects of accounting asymmetries, including hedge accounting ineffectiveness, within Group Treasury. These changes were partly offset by higher valuation gains on auction rate and other securities in Non-core and Legacy Portfolio.

- Refer to “Note 3 Net interest income and other net income from financial instruments measured at fair value through profit or loss” in the “Consolidated financial statements” section of this report for more information

Net interest income and other net income from financial instruments measured at fair value through profit or loss

USD m	For the year ended			% change from 31.12.21
	31.12.22	31.12.21	31.12.20	
Net interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	5,218	5,274	4,563	(1)
Net interest income from financial instruments measured at fair value through profit or loss and other	1,403	1,431	1,299	(2)
Other net income from financial instruments measured at fair value through profit or loss	7,517	5,850	6,960	28
Total	14,137	12,555	12,822	13
Global Wealth Management	6,355	5,341	5,039	19
<i>of which: net interest income</i>	5,273	4,244	4,027	24
<i>of which: transaction-based income from foreign exchange and other intermediary activity¹</i>	1,082	1,097	1,012	(1)
Personal & Corporate Banking	2,685	2,557	2,459	5
<i>of which: net interest income</i>	2,191	2,120	2,049	3
<i>of which: transaction-based income from foreign exchange and other intermediary activity¹</i>	494	437	409	13
Asset Management	(23)	(13)	(16)	75
Investment Bank ²	5,769	5,067	5,643	14
Global Banking	187	596	585	(69)
Global Markets	5,582	4,471	5,057	25
Group Functions	(649)	(397)	(302)	64

- 1 Mainly includes spread-related income in connection with client-driven transactions, foreign currency translation effects and income and expenses from precious metals, which are included in the income statement line Other net income from financial instruments measured at fair value through profit or loss. The amounts reported on this line are one component of Transaction-based income in the management discussion and analysis of Global Wealth Management and Personal & Corporate Banking in the “Global Wealth Management” and “Personal & Corporate Banking” sections of this report, respectively.
- 2 Investment Bank information is provided at the business line level rather than by financial statement reporting line in order to reflect the underlying business activities, which is consistent with the structure of the management discussion and analysis in the “Investment Bank” section of this report.

Net fee and commission income

Net fee and commission income decreased by USD 3,421m to USD 18,966m.

Underwriting fees decreased by USD 884m to USD 579m, mainly driven by lower equity underwriting revenues from public offerings in the Investment Bank, reflecting lower levels of client activity.

Net brokerage fees decreased by USD 841m to USD 3,282m, driven by Global Wealth Management, reflecting lower levels of client activity, and by the Investment Bank, mainly in relation to Cash Equities, partly offset by higher net income from foreign exchange products.

Investment fund fees decreased by USD 848m, driven by Asset Management and Global Wealth Management, mainly reflecting negative market performance. In addition, performance-based fee income in Asset Management decreased, mainly in Hedge Fund Businesses and Equities. Fees for portfolio management and related services decreased by USD 703m, predominantly driven by Global Wealth Management, also reflecting negative market performance, partly offset by incremental revenues from net new fee-generating assets.

M&A and corporate finance fees decreased by USD 298m to USD 804m, primarily reflecting lower revenues from merger and acquisition transactions in our Global Banking business in the Investment Bank, due to a decrease in the number of transactions that closed in 2022.

- Refer to “Note 4 Net fee and commission income” in the “Consolidated financial statements” section of this report for more information

Other income

Other income increased by USD 1,007m to USD 1,459m, mainly driven by higher gains from disposals of associates and subsidiaries, largely reflecting a gain of USD 848m in Asset Management on the sale of our shareholding in our Japanese real estate joint venture, Mitsubishi Corp.-UBS Realty Inc. In addition, there were gains in Global Wealth Management of USD 133m on the sale of our domestic wealth management business in Spain, USD 86m on the sale of UBS Swiss Financial Advisers AG and USD 41m on the sale of our US alternative investments administration business. These gains compared with a gain of USD 100m in 2021 in Global Wealth Management from the sale of our domestic wealth management business in Austria. In addition, we recognized USD 98m of gains related to the repurchase of UBS's own debt instruments, compared with losses of USD 60m in the prior year. These gains were partly offset by USD 76m lower net gains from properties held for sale.

- **Refer to “Note 5 Other income” in the “Consolidated financial statements” section of this report for more information**
- **Refer to “Note 29 Changes in organization and acquisitions and disposals of subsidiaries and businesses” in the “Consolidated financial statements” section of this report for more information about the gains from disposals of associates and subsidiaries**

Credit loss expense / release

Total net credit loss expenses were USD 29m, compared with net credit loss releases of USD 148m in the prior year, reflecting net expenses of USD 29m related to stage 1 and 2 positions.

- Refer to “Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement” and “Note 19 Expected credit loss measurement” in the “Consolidated financial statements” section of this report for more information about credit loss expenses / releases
- Refer to the “Risk factors” section of this report for more information

Credit loss expense / (release)

<i>USD m</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
For the year ended 31.12.22						
Stages 1 and 2	(5)	27	0	6	1	29
Stage 3	5	12	0	(18)	2	0
Total credit loss expense / (release)	0	39	0	(12)	3	29
For the year ended 31.12.21						
Stages 1 and 2	(28)	(62)	0	(34)	0	(123)
Stage 3	(1)	(24)	1	0	0	(25)
Total credit loss expense / (release)	(29)	(86)	1	(34)	0	(148)
For the year ended 31.12.20						
Stages 1 and 2	48	129	0	88	0	266
Stage 3	40	128	2	217	42	429
Total credit loss expense / (release)	88	257	2	305	42	694

Operating expenses

Personnel expenses

Personnel expenses decreased by USD 707m to USD 17,680m, mainly driven by USD 352m lower variable compensation related to financial advisors, following a decrease in compensable revenues. Furthermore, salary costs decreased by USD 294m, as an underlying increase from higher salaries and an increase in the number of employees were more than offset by foreign currency translation effects. Other personnel expenses were USD 87m lower, primarily reflecting a decrease in the number of contractors.

- Refer to the “Compensation” section of this report for more information
- Refer to “Note 6 Personnel expenses,” “Note 26 Post-employment benefit plans” and “Note 27 Employee benefits: variable compensation” in the “Consolidated financial statements” section of this report for more information

General and administrative expenses

General and administrative expenses decreased by USD 364m to USD 5,189m, mainly reflecting USD 563m lower net expenses for litigation, regulatory and similar matters, as 2021 included expenses of USD 740m related to litigation provisions for the French cross-border matter. This was partly offset by higher expenses for travel and entertainment, technology, and consulting fees.

We believe that the industry continues to operate in an environment in which expenses associated with litigation, regulatory and similar matters will remain elevated for the foreseeable future, and we continue to be exposed to a number of significant claims and regulatory matters. The outcome of many of these matters, the timing of a resolution, and the potential effects of resolutions on our future business, financial results or financial condition are extremely difficult to predict.

- Refer to “Note 7 General and administrative expenses” and “Note 17 Provisions and contingent liabilities” in the “Consolidated financial statements” section of this report for more information

Operating expenses

USD m	For the year ended			% change from 31.12.21
	31.12.22	31.12.21	31.12.20	
Personnel expenses	17,680	18,387	17,224	(4)
of which: salaries	7,045	7,339	7,023	(4)
of which: variable compensation	7,954	8,280	7,520 ³	(4)
of which: performance awards	3,205	3,190	3,209	0
of which: financial advisors ¹	4,508	4,860	4,091	(7)
of which: other	241	229	220	5
of which: other personnel expenses ²	2,681	2,768	2,680 ³	(3)
General and administrative expenses	5,189	5,553	4,885	(7)
of which: net expenses for litigation, regulatory and similar matters	348	911	197	(62)
of which: other general and administrative expenses	4,841	4,642	4,688	4
Depreciation, amortization and impairment of non-financial assets	2,061	2,118	2,126	(3)
Total operating expenses	24,930	26,058	24,235	(4)

- 1 Consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.
- 2 Consists of expenses related to contractors, social security, post-employment benefit plans, and other personnel expenses. Refer to “Note 6 Personnel expenses” in the “Consolidated financial statements” section of this report for more information.
- 3 During 2020, UBS modified the conditions for continued vesting of certain outstanding deferred compensation awards for qualifying employees, resulting in an expense of approximately USD 280m, of which USD 240m is disclosed within Variable compensation and USD 40m within Other personnel expenses in this table.

Tax

Income tax expenses of USD 1,942m were recognized for the Group in 2022, representing an effective tax rate of 20.2%, compared with USD 1,998m for 2021, which represented an effective tax rate of 21.1%. The income tax expenses for 2022 included Swiss tax expenses of USD 715m and non-Swiss tax expenses of USD 1,227m.

The Swiss tax expenses included current tax expenses of USD 730m related to taxable profits of UBS Switzerland AG and other Swiss entities. They also included a deferred tax benefit of USD 15m.

The non-Swiss tax expenses included current tax expenses of USD 718m related to taxable profits earned by non-Swiss subsidiaries and branches and net deferred tax expenses of USD 509m. Expenses of USD 678m, which primarily related to the amortization of DTAs previously recognized in relation to tax losses carried forward and deductible temporary differences of UBS Americas Inc., were partly offset by a benefit of USD 169m in respect of net upward revaluations of DTAs for certain entities, primarily in connection with our business planning process.

The effective tax rate for the year of 20.2% is lower than our projected rate for the year of 24%, primarily as a result of the aforementioned deferred tax benefit of USD 169m in respect of net upward revaluations of DTAs and because no tax expenses were recognized in respect of pre-tax gains from dispositions of UBS subsidiaries in 2022.

Excluding any potential effects from the remeasurement of DTAs in connection with the business planning process and any material jurisdictional statutory tax rate changes that could be enacted, we expect a tax rate for 2023 of around 23%.

- Refer to “Note 8 Income taxes” in the “Consolidated financial statements” section of this report for more information
- Refer to the “Risk factors” section of this report for more information

Total comprehensive income attributable to shareholders

In 2022, total comprehensive income attributable to shareholders was USD 3,149m, reflecting net profit of USD 7,630m and negative other comprehensive income (OCI), net of tax, of USD 4,481m.

OCI related to cash flow hedges was negative USD 4,793m, mainly reflecting net unrealized losses on US dollar hedging derivatives resulting from significant increases in the relevant US dollar long-term interest rates.

Foreign currency translation OCI was negative USD 525m, mainly due to the weakening of the Swiss franc (1%) and the euro (6%) against the US dollar.

Defined benefit plan OCI, net of tax, was negative USD 10m. Total net pre-tax OCI related to the Swiss pension plan was negative USD 285m. This was predominantly driven by an extraordinary employer contribution of USD 209m that increased the gross plan assets and resulted in an offsetting OCI loss

as no net pension asset could be recognized on the balance sheet as of 31 December 2022 due to the asset ceiling. As announced in 2018, UBS agreed to mitigate the effects from changes to the Swiss pension plan implemented in 2019 and contributed CHF 646m (USD 698m) in three installments in 2020, 2021 and 2022. The extraordinary contribution of USD 209m in the first quarter of 2022 reflected the third and final installment paid.

Total pre-tax OCI related to our non-Swiss pension plans was positive USD 212m, mostly driven by the UK pension plan, which recorded positive net pre-tax OCI of USD 162m. The positive OCI in the UK plan reflected gains of USD 1,474m from the remeasurement of the defined benefit obligation (DBO), partly offset by a negative return on plan assets of USD 1,312m. The DBO remeasurement effect was mainly driven by a gain of USD 1,451m due to an increase in the applicable discount rate.

OCI related to own credit on financial liabilities designated at fair value was positive USD 796m, primarily due to a widening of our own credit spreads.

- **Refer to “Statement of comprehensive income” in the “Consolidated financial statements” section of this report for more information**
- **Refer to “Note 1b Changes in accounting policies, comparability and other adjustments” in the “Consolidated financial statements” section of this report for more information about the reclassification of a portfolio of assets from Financial assets measured at fair value through OCI to Other financial assets measured at amortized cost in 2022**
- **Refer to “Note 20 Fair value measurement” in the “Consolidated financial statements” section of this report for more information about own credit on financial liabilities designated at fair value**
- **Refer to “Note 25 Hedge accounting” in the “Consolidated financial statements” section of this report for more information about cash flow hedges of forecast transactions**
- **Refer to “Note 26 Post-employment benefit plans” in the “Consolidated financial statements” section of this report for more information about OCI related to defined benefit plans**

Sensitivity to interest rate movements

As of 31 December 2022, we estimate that a parallel shift in yield curves by +100 basis points could lead to a combined increase in annual net interest income of approximately USD 1.5bn in Global Wealth Management and Personal & Corporate Banking in the first year after such a shift. Of this increase, approximately USD 0.8bn, USD 0.4bn and USD 0.2bn would result from changes in Swiss franc, US dollar and euro interest rates, respectively. A parallel shift in yield curves by -100 basis points could lead to a combined decrease in annual net interest income of approximately USD 1.5bn in Global Wealth Management and Personal & Corporate Banking in the first year after such a shift, showing similar currency contributions as for the aforementioned increase in rates.

These estimates are based on a hypothetical scenario of an immediate change in interest rates, equal across all currencies and relative to implied forward rates as of 31 December 2022 applied to our banking book. These estimates further assume no change to balance sheet size and structure, constant foreign exchange rates, and no specific management action. The benefit of the negative rates exemption threshold provided by the Swiss National Bank is not in scope of this net interest income sensitivity disclosure. As average implied forward rates were above 100 basis points across all tenors as of 31 December 2022, the impact would have been negligible. These estimates do not represent a forecast of our net interest income and actual changes in net interest income could differ significantly from the amounts referred to above.

Seasonal characteristics

Our revenues may show seasonal patterns, notably in the Investment Bank and transaction-based revenues for Global Wealth Management, and typically reflect the highest client activity levels in the first quarter, with lower levels throughout the rest of the year, especially during the summer months and the end-of-year holiday season.

Key figures

Below we provide an overview of selected key figures of the Group. For further information about key figures related to capital management, refer to the “Capital, liquidity and funding, and balance sheet” section of this report.

Cost / income ratio

The cost / income ratio was 72.1%, compared with 73.6%, mainly reflecting a decrease in operating expenses, partly offset by a decrease in total revenues.

Return on common equity tier 1 capital

The annualized return on our common equity tier 1 (CET1) capital was 17.0%, compared with 17.5%, reflecting a USD 2.2bn increase in average CET1 capital, with a partly offsetting effect driven by a USD 173m increase in net profit attributable to shareholders.

CET1 capital

CET1 capital increased by USD 0.2bn to USD 45.5bn as of 31 December 2022, mainly as a result of operating profit before tax of USD 9.6bn with associated current tax expenses of USD 1.4bn, partly offset by share repurchases of USD 5.6bn under our share repurchase programs, dividend accruals of USD 1.7bn, negative foreign currency effects of USD 0.5bn and compensation- and own share-related capital components of USD 0.3bn.

Risk-weighted assets

Risk-weighted assets (RWA) increased by USD 17.4bn to USD 319.6bn, primarily driven by increases of USD 10.4bn in credit and counterparty credit risk RWA, USD 4.7bn in operational risk RWA, and USD 2.4bn in market risk RWA.

CET1 capital ratio

Our CET1 capital ratio decreased to 14.2% from 15.0%, mainly reflecting a USD 17.4bn increase in RWA.

Leverage ratio denominator

The leverage ratio denominator (the LRD) decreased by USD 40.4bn to USD 1,028.5bn, driven by currency effects of USD 24.5bn and a USD 15.9bn decrease due to asset size and other movements.

CET1 leverage ratio

Our CET1 leverage ratio increased to 4.42% from 4.24%, predominantly due to the aforementioned decrease in the LRD.

Going concern leverage ratio

Our going concern leverage ratio was unchanged at 5.7%, as the aforementioned decrease in the LRD was offset by a USD 2.2bn decrease in the going concern capital.

Personnel

The number of personnel employed as of 31 December 2022 increased by 1,212 to 72,597 (full-time equivalents) compared with 31 December 2021.

Equity, CET1 capital and returns

<i>USD m, except where indicated</i>	As of or for the year ended		
	31.12.22	31.12.21	31.12.20
Net profit			
Net profit attributable to shareholders	7,630	7,457	6,557
Equity			
Equity attributable to shareholders	56,876	60,662	59,445
Less: goodwill and intangible assets	6,267	6,378	6,480
Tangible equity attributable to shareholders	50,609	54,283	52,965
Less: other CET1 deductions	5,152	9,003	13,075
CET1 capital	45,457	45,281	39,890
Return on equity			
Return on equity (%)	13.3	12.6	11.3
Return on tangible equity (%)	14.9	14.1	12.8
Return on CET1 capital (%)	17.0	17.5	17.4

Global Wealth Management¹

<i>USD m, except where indicated</i>	As of or for the year ended		% change from 31.12.21
	31.12.22	31.12.21	
Results			
Net interest income	5,273	4,244	24
Recurring net fee income ²	10,282	11,170	(8)
Transaction-based income ²	3,137	3,836	(18)
Other income	275	168	63
Total revenues	18,967	19,419	(2)
Credit loss expense / (release)	0	(29)	
Operating expenses	13,989	14,665	(5)
Business division operating profit / (loss) before tax	4,977	4,783	4
Performance measures and other information			
Pre-tax profit growth (year-on-year, %) ²	4.1	19.0	
Cost / income ratio (%) ²	73.8	75.5	
Average attributed equity (USD bn) ³	20.0	18.8	6
Return on attributed equity (%) ^{2,3}	24.9	25.4	
Financial advisor compensation ⁴	4,508	4,860	(7)
Net new fee-generating assets (USD bn) ²	60.1	106.9	
Fee-generating assets (USD bn) ²	1,271	1,482	(14)
Fee-generating asset margin (bps) ²	79.5	82.6	
Net new money (USD bn) ²	40.5	111.1	
Invested assets (USD bn) ²	2,815	3,303	(15)
Loans, gross (USD bn) ⁵	225.0	234.1	(4)
Customer deposits (USD bn) ⁵	348.2	369.8	(6)
Impaired loan portfolio as a percentage of total loan portfolio, gross (%) ^{2,6}	0.3	0.2	
Advisors (full-time equivalents)	9,215	9,329	(1)

- Comparatives may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period.
- Refer to “Alternative performance measures” in the appendix to this report for the definition and calculation method. Since the second quarter of 2022, assets related to our Global Financial Intermediaries business have been excluded from fee-generating assets, given that fee-generating investment management products, such as mandates, are not central to this business. Furthermore, client commitments into closed-ended private-market investment funds are included as fee-generating assets once recurring fees are charged, rather than when commitments are funded. These changes have been applied prospectively.
- Refer to “Capital management” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information.
- Relates to licensed professionals with the ability to provide investment advice to clients in the Americas. Consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. Recruitment loans to financial advisors were USD 1,751m as of 31 December 2022.
- Loans and Customer deposits in this table include customer brokerage receivables and payables, respectively, which are presented in a separate reporting line on the balance sheet.
- Refer to the “Risk management and control” section of this report for more information about (credit-)impaired exposures. Excludes loans to financial advisors.

2022 compared with 2021

Results

Profit before tax increased by USD 194m, or 4%, to USD 4,977m, mainly driven by lower operating expenses, as 2021 included expenses of USD 657m related to litigation provisions for the French cross-border matter, partly offset by lower total revenues.

Total revenues

Total revenues decreased by USD 452m, or 2%, to USD 18,967m, due to decreases across recurring net fee and transaction-based income, partly offset by increases in net interest and other income.

Net interest income increased by USD 1,029m, or 24%, to USD 5,273m, mainly due to an increase in deposit revenues, as rising interest rates led to higher deposit margins. This increase was partly offset by the effects of shifts to lower-margin products and higher interest rates paid to clients. Loan revenues decreased, driven by lower loan margins.

Recurring net fee income decreased by USD 888m, or 8%, to USD 10,282m, primarily driven by negative market performance and foreign currency effects, partly offset by incremental revenues from net new fee-generating assets.

Transaction-based income decreased by USD 699m, or 18%, to USD 3,137m, mainly reflecting lower levels of client activity in Asia Pacific, Americas and EMEA.

Other income increased by USD 107m to USD 275m, including a USD 133m gain from the sale of our domestic wealth management business in Spain, an USD 86m gain from the sale of UBS Swiss Financial Advisers AG and a USD 41m gain from the sale of our US alternative investments administration business in 2022. 2021 included a gain of USD 100m related to the sale of our domestic wealth management business in Austria. Additionally, 2022 included lower gains on our equity ownership of SIX Group and lower gains from sales of securities positions.

Credit loss expense / release

Net credit loss expenses were zero, as net expenses related to credit-impaired (stage 3) positions were entirely offset by net releases from stage 1 and 2 positions, compared with net releases of USD 29m.

Operating expenses

Operating expenses decreased by USD 676m, or 5%, to USD 13,989m, primarily due to 2021 including the aforementioned expenses of USD 657m related to litigation provisions for the French cross-border matter. Operating expenses in 2022 included lower personnel expenses, primarily as a result of lower financial advisor variable compensation following a decrease in compensable revenues, and benefited from positive foreign currency effects. These effects were partly offset by higher technology expenses and higher expenses for professional fees, travel and entertainment, outsourcing, and marketing in 2022.

Pre-tax profit growth

Pre-tax profit growth in 2022 was 4.1%, compared with 19.0% in 2021. Our target range is 10–15% over the cycle. Cost / income ratio The cost / income ratio decreased to 73.8% from 75.5%, reflecting positive operating leverage.

Fee-generating assets

Fee-generating assets decreased by USD 211bn, or 14%, to USD 1,271bn, mainly driven by net negative market performance and foreign currency effects. Net new fee-generating asset inflows were USD 60.1bn, with inflows in all regions, and resulted in an annualized net new fee-generating asset growth rate of 4.1%.

Loans

Loans decreased by USD 9.1bn, or 4%, to USD 225.0bn, primarily driven by negative foreign exchange effects and net new loan outflows of USD 2.5bn.

- **Refer to the “Risk management and control” section of this report for more information**

Customer deposits

Customer deposits decreased by USD 21.6bn to USD 348.2bn, mainly driven by US dollar deposit shifts into other products, as well as negative foreign currency effects.

Regional breakdown of performance measures

As of or for the year ended 31.12.22
USD bn, except where indicated

	Americas ¹	Switzerland	EMEA ²	Asia Pacific	Global Wealth Management ³
Total revenues (USD m)	10,634	1,859	3,913	2,556	18,967
Operating profit / (loss) before tax (USD m)	1,748	817	1,490	943	4,977
Cost / income ratio (%) ⁴	83.7	55.2	61.9	63.2	73.8
Loans, gross	101.2 ⁵	45.1	43.4	34.5	225.0
Net new loans	9.0	2.5	(1.4)	(13.2)	(2.5)
Fee-generating assets ⁴	779	119	259	114	1,271
Net new fee-generating assets ⁴	17.2	9.1	20.3	13.7	60.1
Net new fee-generating asset growth rate (%) ⁴	1.9	7.0	6.1	11.8	4.1
Invested assets ⁴	1,581	253	541	437	2,815
Net new money ⁴	7.0	12.3	21.9	(0.6)	40.5
Advisors (full-time equivalents)	6,245	676	1,372	847	9,215

1 Including the following business units: United States and Canada; and Latin America.

2 Including the following business units: Europe; Central & Eastern Europe, Greece and Israel; and Middle East and Africa.

3 Including minor functions, which are not included in the four regions individually presented in this table, with USD 5m of total revenues, USD 21m of operating loss before tax, USD 0.7bn of loans, USD 0.6bn of net new loan inflows, USD 0.8bn of fee-generating assets, USD 0.1bn of net new fee-generating asset outflows, USD 3bn of invested assets, USD 0.1bn of net new money outflows and 74 advisors in 2022.

4 Refer to “Alternative performance measures” in the appendix to this report for the definition and calculation method.

5 Loans include customer brokerage receivables, which are presented in a separate reporting line on the balance sheet.

Regional comments: 2022 compared with 2021

Americas

Profit before tax decreased by USD 253m to USD 1,748m, mainly driven by higher operating expenses, including an increase in net expenses for litigation, regulatory and similar matters. Total revenues decreased by USD 22m to USD 10,634m, mainly driven by lower recurring net fee and transaction-based income, partly offset by higher net interest income. The cost / income ratio increased to 83.7% from 81.4%. Loans increased 10% to USD 101.2bn, reflecting USD 9.0bn of net new loan inflows. Net new fee-generating assets were USD 17.2bn.

Switzerland

Profit before tax increased by USD 67m to USD 817m, mostly driven by lower operating expenses, as 2021 included expenses of USD 85m related to litigation provisions for the French cross-border matter. Total revenues decreased by USD 41m to USD 1,859m, mainly driven by lower recurring net fee income, partly offset by higher net interest and transaction-based income. The cost / income ratio decreased to 55.2% from 60.8%. Loans increased 4% to USD 45.1bn, driven by net new loan inflows of USD 2.5bn, partly offset by negative foreign currency effects. Net new fee-generating assets were USD 9.1bn.

EMEA

Profit before tax increased by USD 678m to USD 1,490m, primarily driven by lower operating expenses, as 2021 included expenses of USD 572m related to litigation provisions for the French cross-border matter. Total revenues decreased by USD 35m to USD 3,913m, due to lower recurring net fee and transaction-based income, partly offset by an increase in net interest income, as well as an increase in other income, which was driven by the aforementioned gains from sales. The cost / income ratio decreased to 61.9% from 79.6%. Loans decreased 12% to USD 43.4bn, mainly reflecting negative foreign currency effects and net new loan outflows of USD 1.4bn. Net new fee-generating assets were USD 20.3bn.

Asia Pacific

Profit before tax decreased by USD 294m to USD 943m. Total revenues decreased by USD 343m to USD 2,556m, mostly driven by lower transaction-based and recurring net fee income, partly offset by an increase in net interest income. The cost / income ratio increased to 63.2% from 57.4%. Loans decreased 29% to USD 34.5bn, driven by net new loan outflows of USD 13.2bn, as clients reduced their debts in light of market uncertainty, as well as negative foreign currency effects. Net new fee-generating assets were USD 13.7bn.

Personal & Corporate Banking

Personal & Corporate Banking – in Swiss francs¹

<i>CHF m, except where indicated</i>	As of or for the year ended		% change from
	31.12.22	31.12.21	31.12.21
Results			
Net interest income	2,087	1,941	8
Recurring net fee income ²	812	774	5
Transaction-based income ²	1,154	1,079	7
Other income	46	110	(58)
Total revenues	4,099	3,904	5
Credit loss expense / (release)	36	(79)	
Operating expenses	2,337	2,397	(2)
Business division operating profit / (loss) before tax	1,726	1,587	9
Performance measures and other information			
Pre-tax profit growth (year-on-year, %) ²	8.8	35.1	
Cost / income ratio (%) ²	57.0	61.4	
Average attributed equity (CHF bn) ³	8.8	8.4	6
Return on attributed equity (%) ^{2,3}	19.5	19.0	
Net interest margin (bps) ²	147	140	
Fee and trading income for Corporate & Institutional Clients ²	810	791	2
Investment products for Personal Banking (CHF bn) ²	21.6	23.5	(8)
Net new investment products for Personal Banking (CHF bn) ²	1.99	2.66	
Active Digital Banking clients in Personal Banking (%) ^{2,4}	74.3	70.3	
Active Mobile Banking clients in Personal Banking (%) ²	56.5	46.7	
Active Digital Banking clients in Corporate & Institutional Clients (%) ²	80.0	79.3	
Loans, gross (CHF bn)	142.9	139.3	3
Customer deposits (CHF bn)	167.2	162.1	3
Impaired loan portfolio as a percentage of total loan portfolio, gross (%) ^{2,5}	0.8	0.9	

- Comparatives may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period.
- Refer to “Alternative performance measures” in the appendix to this report for the definition and calculation method.
- Refer to “Capital management” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information.
- In 2022, 86.0% of clients of Personal Banking were “activated users” of Digital Banking (i.e., clients who had logged into Digital Banking at least once in the course of their relationship with UBS).
- Refer to the “Risk management and control” section of this report for more information about (credit-)impaired exposures.

2022 compared with 2021

Results

Profit before tax increased by CHF 139m, or 9%, to CHF 1,726m, reflecting higher total revenues and lower operating expenses, partly offset by net credit loss expenses, compared with net credit loss releases in 2021.

Total revenues

Total revenues increased by CHF 195m, or 5%, to CHF 4,099m, reflecting increases across all income lines except other income.

Net interest income increased by CHF 146m to CHF 2,087m, mainly driven by higher deposit revenues, as a result of rising interest rates. This increase was partly offset by a lower benefit from the Swiss National Bank deposit exemption and lower deposit fees.

Recurring net fee income increased by CHF 38m to CHF 812m, primarily driven by higher revenues from account fees.

Transaction-based income increased by CHF 75m to CHF 1,154m, largely driven by higher revenues from credit card and foreign exchange transactions, reflecting a continued increase in spending on travel and leisure by clients following the easing of COVID-19-related restrictions in certain countries compared with 2021.

Other income decreased by CHF 64m to CHF 46m, mostly due to lower gains on our equity ownership of SIX Group. The prior year also included a gain of CHF 26m from the sale of several small properties in that year.

Credit loss expense / release

Net credit loss expenses were CHF 36m, compared with net releases of CHF 79m. Stage 1 and 2 net credit loss expenses were CHF 25m. Prior-year stage 1 and 2 net credit loss releases were CHF 57m, largely resulting from a partial release of a post-model adjustment during the year, as well as model updates. Stage 3 net credit loss expenses were CHF 11m, compared with net releases of CHF 23m in 2021.

Operating expenses

Operating expenses decreased by CHF 60m, or 2%, to CHF 2,337m, mostly due to 2021 including expenses of CHF 76m (USD 83m) related to litigation provisions for the French cross-border matter.

Cost / income ratio

The cost / income ratio was 57.0%, compared with 61.4% in 2021, reflecting both higher total revenues and lower operating expenses.

Personal & Corporate Banking – in US dollars¹

<i>USD m, except where indicated</i>	As of or for the year ended		% change from 31.12.21
	31.12.22	31.12.21	
Results			
Net interest income	2,191	2,120	3
Recurring net fee income ²	852	846	1
Transaction-based income ²	1,212	1,178	3
Other income	48	119	(60)
Total revenues	4,302	4,263	1
Credit loss expense / (release)	39	(86)	
Operating expenses	2,452	2,618	(6)
Business division operating profit / (loss) before tax	1,812	1,731	5
Performance measures and other information			
Pre-tax profit growth (year-on-year, %) ²	4.7	37.5	
Cost / income ratio (%) ²	57.0	61.4	
Average attributed equity (USD bn) ³	9.3	9.2	1
Return on attributed equity (%) ^{2,3}	19.5	18.9	
Net interest margin (bps) ²	146	142	
Fee and trading income for Corporate & Institutional Clients ²	851	864	(1)
Investment products for Personal Banking (USD bn) ²	23.4	25.8	(9)
Net new investment products for Personal Banking (USD bn) ²	2.11	2.90	
Active Digital Banking clients in Personal Banking (%) ^{2,4}	74.3	70.3	
Active Mobile Banking clients in Personal Banking (%) ²	56.5	46.7	
Active Digital Banking clients in Corporate & Institutional Clients (%) ²	80.0	79.3	

Loans, gross (USD bn)	154.6	152.8	1
Customer deposits (USD bn)	180.8	177.8	2
Impaired loan portfolio as a percentage of total loan portfolio, gross (%) ^{2,5}	0.8	0.9	

- 1 Comparatives may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period.
- 2 Refer to “Alternative performance measures” in the appendix to this report for the definition and calculation method.
- 3 Refer to “Capital management” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information.
- 4 In 2022, 86.0% of clients of Personal Banking were “activated users” of Digital Banking (i.e., clients who had logged into Digital Banking at least once in the course of their relationship with UBS).
- 5 Refer to the “Risk management and control” section of this report for more information about (credit-) impaired exposures.

Asset Management

Asset Management¹

<i>USD m, except where indicated</i>	As of or for the year ended		% change from
	31.12.22	31.12.21	31.12.21
Results			
Net management fees ²	2,050	2,320	(12)
Performance fees	64	260	(75)
Net gain from disposal of a joint venture / an associate	848	37	
Total revenues	2,961	2,617	13
Credit loss expense / (release)	0	1	
Operating expenses	1,564	1,586	(1)
Business division operating profit / (loss) before tax	1,397	1,030	36
Performance measures and other information			
Pre-tax profit growth (year-on-year, %) ³	35.7	(29.2)	
Cost / income ratio (%) ³	52.8	60.6	
Average attributed equity (USD bn) ⁴	1.7	2.0	(13)
Return on attributed equity (%) ^{3,4}	81.2	51.8	
Gross margin on invested assets (bps) ³	28	23	
Information by business line / asset class			
Net new money (USD bn)³			
Equities	(12.8)	10.3	
Fixed Income	36.5	22.7	
<i>of which: money market</i>	26.3	(3.1)	
Multi-asset & Solutions	(1.3)	6.8	
Hedge Fund Businesses	2.3	5.7	
Real Estate & Private Markets	0.2	(0.6)	
Total net new money⁵	24.8	44.9	
<i>of which: net new money excluding money market</i>	(1.6)	48.0	
Invested assets (USD bn)³			
Equities	456	580	(21)
Fixed Income	296	285	4
<i>of which: money market</i>	119	92	29
Multi-asset & Solutions	155	193	(19)
Hedge Fund Businesses	55	55	1
Real Estate & Private Markets	102	98	4
Total invested assets	1,064	1,211	(12)
<i>of which: passive strategies</i>	443	540	(18)
Information by region			
Invested assets (USD bn)³			
Americas	298	287	4
Asia Pacific	150	190	(21)
Europe, Middle East and Africa (excluding Switzerland)	263	334	(21)
Switzerland	354	399	(11)
Total invested assets	1,064	1,211	(12)
Information by channel			
Invested assets (USD bn)³			
Third-party institutional	606	707	(14)
Third-party wholesale	116	145	(20)
UBS's wealth management businesses	342	359	(5)
Total invested assets	1,064	1,211	(12)

- 1 Comparatives may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period.
- 2 Net management fees include transaction fees, fund administration revenues (including net interest and trading income from lending activities and foreign exchange hedging as part of the fund services offering), distribution fees, incremental fund-related expenses, gains or losses from seed money and co-investments, funding costs, the negative pass-through impact of third-party performance fees, and other items that are not Asset Management's performance fees.

- 3 Refer to “Alternative performance measures” in the appendix to this report for the definition and calculation method.
- 4 Refer to “Capital management” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information.
- 5 A net new money inflow of USD 4.1bn was recognized in the fourth quarter of 2022 for the provision of hedge fund services to Global Wealth Management Americas.

2022 compared with 2021

Results

Profit before tax increased by USD 367m, or 36%, to USD 1,397m. This increase reflected a gain of USD 848m from the sale of our shareholding in the Mitsubishi Corp.-UBS Realty Inc. joint venture in the second quarter of 2022. Profit before tax in 2021 included a post-tax gain of USD 37m related to the sale of our minority interest in Clearstream Fund Centre AG. Excluding these gains, profit before tax decreased by USD 443m, or 45%, to USD 550m, reflecting lower net management and performance fees.

- Refer to “**Note 29 Changes in organization and acquisitions and disposals of subsidiaries and businesses**” in the “**Consolidated financial statements**” section of this report for more information about the aforementioned sales

Total revenues

Total revenues increased by USD 344m, or 13%, to USD 2,961m. Excluding the aforementioned gains from sales, total revenues decreased by USD 466m, or 18%.

Net management fees decreased by USD 270m, or 12%, to USD 2,050m, on a lower average invested asset base, reflecting negative market performance and foreign currency effects.

Performance fees decreased by USD 196m to USD 64m, mainly in Hedge Fund Businesses and Equities.

Operating expenses

Operating expenses decreased by USD 22m, or 1%, to USD 1,564m, mainly reflecting positive foreign currency effects, lower personnel expenses and lower net expenses for litigation, regulatory and similar matters, as well as lower consulting expenses. These decreases were almost entirely offset by higher expenses for technology, market data services, travel, regulatory, and risk management.

Cost / income ratio

The cost / income ratio was 52.8%, compared with 60.6% in 2021. Excluding the aforementioned gains from sales, the cost / income ratio was 74.0%, compared with 61.5% in 2021.

Invested assets

Invested assets decreased to USD 1,064bn from USD 1,211bn, reflecting negative market performance of USD 137bn and negative foreign currency effects of USD 32bn, partly offset by net new money inflows of USD 25bn. Excluding money market flows, net new money was negative USD 2bn.

Investment performance

As of year-end 2022, Morningstar assigned a four- or five-star rating to 62% of our retail and institutional funds assets under management (AuM) (both actively managed and passive), on an AuM-weighted basis. Furthermore, 47% of our actively managed open-ended retail and institutional funds AuM are ranked, on an AuM-weighted basis over a three-year investment period, above their respective peer median.

Investment performance as of 31 December 2022

<i>In %</i>	Total traditional investments	Equities	Fixed Income	Multi-asset
% of UBS Asset Management fund assets rated as 4- or 5-star ^{1,2}	62	71	55	41
% of UBS Asset Management fund assets above peer median over a 3-year investment period ^{1,3}	47	46	52	44

1 Morningstar® Essentials Quantitative Star Rating & Rankings; © Morningstar 2023, extract date 12 January 2023. All rights reserved. The information contained herein: (1) is proprietary to Morningstar and / or its content providers; (2) may not be copied or distributed; (3) is not warranted to be accurate, complete or timely; and (4) does not constitute advice of any kind, whether investment, tax, legal or otherwise. User is solely responsible for ensuring that it complies with all laws, regulations and restrictions applicable to it. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information, except where such damages or losses cannot be limited or excluded by law in your jurisdiction. Past performance is no guarantee of future results. For more detailed information about the Morningstar Rating, including its methodology, please go to: https://s21.q4cdn.com/198919461/files/doc_downloads/othe_disclosure_materials/MorningstarRatingforFunds.pdf.

2 Percentage of AuM to which Morningstar has assigned a four- or five-star rating. AuM reflect the AuM of Asset Management's retail and institutional funds (both actively managed and passive) across all domiciles for which Asset Management owns the investment performance, i.e., Asset Management is either the sole portfolio manager or co-portfolio manager. Universe is approximately 31% of all active and passive traditional assets of Asset Management (Equities, Fixed Income excluding money market, and Multi-asset) as of 31 December 2022.

- 3 Percentage of AuM above peer median over a three-year investment period. AuM reflect the AuM of Asset Management’s actively managed open-ended retail and institutional funds across all domiciles for which Asset Management owns the investment performance, i.e., Asset Management is either the sole portfolio manager or co-portfolio manager. Universe is approximately 29% of all active traditional assets of Asset Management (Equities, Fixed Income excluding money market, and Multi-asset) as of 31 December 2022.

Investment Bank

Investment Bank¹

<i>USD m, except where indicated</i>	As of or for the year ended		% change from
	31.12.22	31.12.21	31.12.21
Results			
Advisory	733	988	(26)
Capital Markets	854	2,170	(61)
Global Banking	1,587	3,158	(50)
Execution Services	1,643	1,894	(13)
Derivatives & Solutions	3,665	3,422	7
Financing	1,822	979	86
Global Markets	7,129	6,296	13
<i>of which: Equities</i>	<i>4,970</i>	<i>4,581</i>	<i>8</i>
<i>of which: Foreign Exchange, Rates and Credit</i>	<i>2,160</i>	<i>1,715</i>	<i>26</i>
Total revenues	8,717	9,454	(8)
Credit loss expense / (release)	(12)	(34)	(65)
Operating expenses	6,832	6,858	0
Business division operating profit / (loss) before tax	1,897	2,630	(28)
Performance measures and other information			
Pre-tax profit growth (year-on-year, %) ²	(27.9)	5.9	
Cost / income ratio (%) ²	78.4	72.5	
Average attributed equity (USD bn) ³	13.0	13.0	0
Return on attributed equity (%) ^{2,3}	14.6	20.3	
Average VaR (1-day, 95% confidence, 5 years of historical data)	10	11	(5)

1 Comparative figures in this table may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period.

2 Refer to “Alternative performance measures” in the appendix to this report for the definition and calculation method.

3 Refer to “Capital management” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information.

2022 compared with 2021

Results

Profit before tax decreased by USD 733m, or 28%, to USD 1,897m, driven by lower total revenues and lower net credit loss releases, partly offset by lower operating expenses.

Total revenues

Total revenues decreased by USD 737m, or 8%, to USD 8,717m, reflecting lower revenues in Global Banking, partly offset by higher revenues in Global Markets.

Global Banking

Global Banking revenues decreased by USD 1,571m, or 50%, to USD 1,587m, driven by Capital Markets and Advisory revenues, compared with a 43% decrease in the overall global fee pool.

Advisory revenues decreased by USD 255m, or 26%, to USD 733m, mostly due to lower merger and acquisition (M&A) transaction revenues, which decreased by USD 217m, or 25%, compared with a 21% decrease in the global M&A fee pool.

Capital Markets revenues decreased by USD 1,316m, or 61%, to USD 854m, primarily due to lower Equity Capital Markets (ECM) revenues, which decreased by USD 738m, or 71%, compared with a 67% decrease in the global ECM fee pool. Leveraged Capital Markets (LCM) fee revenues decreased by USD 297m, or 58%, compared with a 54% decrease in the global LCM fee pool.

Global Markets

Global Markets revenues increased by USD 833m, or 13%, to USD 7,129m, driven by higher revenues in our Financing and Derivatives & Solutions businesses, partly offset by lower revenues in Execution Services.

Execution Services revenues decreased by USD 251m, or 13%, to USD 1,643m, mainly driven by lower Cash Equities revenues.

Derivatives & Solutions revenues increased by USD 243m, or 7%, to USD 3,665m, mostly driven by an increase in Foreign Exchange and Rates, which benefited from elevated volatility due to inflationary concerns and the actions of central banks, partly offset by a decrease in Equity Derivatives revenues due to lower levels of client activity.

Financing revenues increased by USD 843m, or 86%, to USD 1,822m, predominantly due to 2021 including an USD 861m loss on the default of a US-based client of our prime brokerage business.

Global Markets Equities revenues increased by USD 389m, or 8%, to USD 4,970m, mainly driven by Equity Financing, due to the aforementioned loss in our prime brokerage business in 2021, partly offset by lower revenues in Cash Equities and Equity Derivatives.

Global Markets Foreign Exchange, Rates and Credit revenues increased by USD 445m, or 26%, to USD 2,160m, mostly driven by an increase in Foreign Exchange and Rates products, which benefited from elevated volatility due to inflationary concerns and the actions of central banks.

Credit loss expense / release

Net credit loss releases were USD 12m, primarily related to credit-impaired (stage 3) positions, compared with net releases of USD 34m in 2021.

Operating expenses

Operating expenses decreased by USD 26m, to USD 6,832m, with positive foreign currency effects being almost entirely offset by increases across a number of expense lines.

Cost / income ratio

The cost / income ratio increased to 78.4% from 72.5%, as total revenues decreased by 8% and operating expenses were in line with 2021.

Group Functions

Group Functions¹

<i>USD m</i>	As of or for the year ended		% change from 31.12.21
	31.12.22	31.12.21	
Results			
Total revenues	(385)	(359)	7
Credit loss expense / (release)	3	0	801
Operating expenses	92	330	(72)
Operating profit / (loss) before tax	(480)	(689)	(30)
<i>of which: Group Treasury</i>	<i>(404)</i>	<i>(446)</i>	<i>(9)</i>
<i>of which: Non-core and Legacy Portfolio</i>	<i>131</i>	<i>(79)</i>	
<i>of which: Group Services</i>	<i>(206)</i>	<i>(165)</i>	<i>25</i>

1 Comparatives may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period.

2022 compared with 2021

Results

Group Functions recorded a loss before tax of USD 480m, compared with a loss of USD 689m.

Group Treasury

The Group Treasury result was negative USD 404m, compared with negative USD 446m.

The net effects of accounting asymmetries, including hedge accounting ineffectiveness, were negative USD 375m, compared with negative USD 341m. Accounting asymmetries are generally expected to mean revert to zero over time, though the length of time needed for full reversion can vary significantly, depending on market conditions.

Income related to centralized Group Treasury risk management was negative USD 2m, compared with negative USD 63m.

Non-core and Legacy Portfolio

The Non-core and Legacy Portfolio result was positive USD 131m, compared with negative USD 79m. This was mainly due to income of USD 114m related to a legacy litigation settlement and a legacy bankruptcy claim, and valuation gains of USD 81m on our USD 1.3bn portfolio of auction rate securities (ARS). Our remaining exposures to ARS were all rated investment grade as of 31 December 2022.

Group Services

The Group Services result was negative USD 206m, compared with negative USD 165m, mainly driven by higher funding costs related to deferred tax assets, partly offset by lower expenses relating to our legal entity transformation program.

Risk, capital, liquidity and funding, and balance sheet

Management report

Audited information according to IFRS 7 and IAS 1

Risk and capital disclosures provided in line with the requirements of International Financial Reporting Standard 7 (IFRS 7), *Financial Instruments: Disclosures*, and International Accounting Standard 1 (IAS 1), *Presentation of Financial Statements*, form part of the financial statements included in the “Consolidated financial statements” section of this report and are audited by the independent registered public accounting firm Ernst & Young Ltd, Basel. This information is marked as “Audited” within this section of the report. The risk profile of UBS AG consolidated does not differ materially from that of UBS Group AG consolidated. Audited information provided in the “Risk management and control” and “Capital, liquidity and funding, and balance sheet” sections applies to both UBS Group AG consolidated and UBS AG consolidated.

Signposts

The **Audited** | signpost that is displayed at the beginning of a section, table or chart indicates that those items have been audited. A triangle symbol – ▲ – indicates the end of the audited section, table or chart.

Risk management and control

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Risk management and control

Overview of risks arising from our business activities

Key risks by business division and Group Functions

Business divisions and Group Functions

Key financial risks arising from business activities

Global Wealth Management

Credit risk from lending against securities collateral, including derivative trading activity, and lending against residential and commercial real estate collateral, as well as corporate and other lending.

Market risk from municipal securities and taxable fixed-income securities. Interest rate risk in the banking book related to Global Wealth Management is transferred to and managed by Group Treasury.

Personal & Corporate Banking

Credit risk from retail business, mortgages, secured and unsecured corporate lending, commodity trade finance, lending to banks and other regulated clients, as well as a small amount of derivatives trading activity.

Minimal contribution to **market risk**. Interest rate risk in the banking book related to Personal & Corporate Banking is transferred to and managed by Group Treasury.

Asset Management

Credit risk and **market risk** on client assets invested in Asset Management funds can impact management and performance fees and cause heightened fund outflows, liquidity risk and losses on our seed capital and co-investments.

Small amounts of credit and market risk for on-balance sheet items.

Investment Bank

Credit risk from lending (take-and-hold, as well as temporary loan underwriting activities), derivatives trading and securities financing.

Market risk from primary underwriting activities and secondary trading.

Group Functions

Credit and **market risk** arising from management of the Group's balance sheet, capital, profit or loss and liquidity portfolios.

Structural risk arising from asset and liability management and liquidity and funding risk (managed by Group Treasury).

Non-financial risks, which include operational, financial crime, compliance, conduct, model and reputational risks, are an inevitable consequence of being in business and can arise as a result of our past and current business activities across all business divisions and Group Functions.

- Refer to “Risk categories” in this section for more information about other financial and non-financial risks relevant to UBS

Key risk developments

Although 2022 was a challenging year for the global economy and most markets, our lending portfolio performed well, with low credit loss expenses and a USD 0.2bn reduction in credit-impaired exposure to USD 2.5bn. Overall, we saw a USD 6bn decrease in banking product exposure driven by lower balances at central banks and lower loans and advances to Global Wealth Management customers. Traded product exposures saw a decrease of USD 3bn across our business divisions.

Market risk remained stable and at low levels, as a result of our continued focus on managing tail risks.

Risk categories

We categorize the risk exposures of our business divisions and Group Functions as outlined in the table below. Our risk appetite framework is designed to capture all risk categories.

- **Refer to “Risk appetite framework” in this section for more information**

	<u>Risk managed by</u>	<u>Independent oversight by</u>
Financial risks		
<p>Audited Credit risk: the risk of loss resulting from the failure of a client or counterparty to meet its contractual obligations toward UBS. This includes settlement risk, loan underwriting risk and step-in risk.</p> <p><i>Settlement risk:</i> the risk of loss resulting from transactions that involve exchange of value (e.g., security versus cash) where we must deliver without first being able to determine with certainty that we will receive the consideration.</p> <p><i>Loan underwriting risk:</i> the risk of loss arising during the holding period of financing transactions that are intended for further distribution.</p> <p><i>Step-in risk:</i> the risk that UBS may decide to provide financial support to an unconsolidated entity that is facing stress in the absence of, or in excess of, any contractual obligations to provide such support. ▲</p>	Business divisions	Risk Control
<p>Audited Market risk (traded and non-traded): the risk of loss resulting from adverse movements in market variables. Market variables include observable variables, such as interest rates, foreign exchange rates, equity prices, credit spreads and commodity (including precious metal) prices, as well as variables that may be unobservable or only indirectly observable, such as volatilities and correlations. Market risk includes issuer risk and investment risk.</p> <p><i>Issuer risk:</i> the risk of loss from changes in fair value resulting from credit-related events affecting an issuer to which we are exposed through tradable securities or derivatives referencing the issuer.</p> <p><i>Investment risk:</i> issuer risk associated with positions held as financial investments. ▲</p>	Business divisions and Group Treasury	Risk Control
<p>Country risk: the risk of loss resulting from country-specific events. Includes transfer risk, which involves a country’s authorities preventing or restricting the payment of an obligation, as well as systemic risk events arising from country-specific political or macroeconomic developments.</p>	Business divisions	Risk Control
<p>Sustainability and climate risk: the risk that UBS negatively impacts, or is impacted by, climate change, natural capital, human rights, and other environmental, social, governance (ESG) matters. Climate risks can arise from either changing climate conditions (physical risks) or from efforts to mitigate climate change (transition risks). Sustainability and climate risk may manifest as credit, market, liquidity, and / or non-financial risks for UBS, resulting in potential adverse financial, liability and / or reputation impacts. These risks extend to the value of investments and may also affect the value of collateral (e.g., real estate).</p>	Business divisions	Risk Control
<p>Treasury risk: the risks associated with asset and liability management and our liquidity and funding positions, as well as structural exposures including pension risks.</p>	Group Treasury	Risk Control

Audited | Liquidity risk: the risk that the firm will not be able to efficiently meet both expected and unexpected current and forecast cash flows and collateral needs without affecting either daily operations or the financial condition of the firm. ▲

Audited | Funding risk: the risk that the firm will be unable, on an ongoing basis, to borrow funds in the market on an unsecured (or even secured) basis at an acceptable price to fund actual or proposed commitments, i.e., the risk that UBS’s funding capacity is not sufficient to support the firm’s current business and desired strategy. ▲

Interest rate risk in the banking book: the risk to the bank’s capital and earnings arising from the adverse effects of interest rate movements on the bank’s banking book positions. The risk is transferred from the originating business units GWM and P&C to Group Treasury to risk manage this centrally and benefit from Group-wide netting while leaving the business units with margin management.

Structural foreign exchange risk: the risk of decreases in our capital due to changes in foreign exchange rates with an adverse translation effect on capital held in currencies other than the US dollar.

Pension risk: the risk of a negative impact on our capital as a result of deteriorating funded status from decreases in the fair value of assets held in defined benefit pension funds and / or changes in the value of defined benefit pension obligations due to changes in actuarial assumptions (e.g., discount rate, life expectancy, rate of pension increase) and / or changes to plan designs.

Group Treasury and
Human Resources

Risk Control and
Finance

Business risk: the potential negative impact on earnings from lower-than-expected business volumes and / or margins, to the extent they are not offset by a decrease in expenses. For example, changes in the competitive landscape, client behavior or market conditions can potentially have a negative impact.

Business divisions

Risk Control and
Finance

	Risk managed by	Independent oversight by
Non-financial risks		
Compliance risk: the risk of failure to comply with laws, rules and regulations, and internal policies and procedures.	Business divisions	Group Compliance, Regulatory & Governance (GCRG)
Employment risk: the risk of not adhering to the applicable employment law, regulatory requirements and human resources practices, as well as our own internal standards.		Human Resources
Conduct risk: the risk that the conduct of the firm or its individuals unfairly impacts clients or counterparties, undermines the integrity of the financial system or impairs effective competition to the detriment of consumers.		GCRG
Financial crime risk: the risk of failure to prevent financial crime (including money laundering, terrorist financing, sanctions violations, fraud, bribery and corruption).	Business divisions and Financial Crime Prevention (FCP)	GCRG
Operational risk: the risk resulting from inadequate or failed internal processes, people or systems, or from external causes (deliberate, accidental or natural).	Business divisions	GCRG
Cybersecurity and information security risk: the risk of a malicious internal or external act, or a failure of IT hardware or software, or human error, leading to a material impact on confidentiality, integrity or availability of UBS's data or information systems.	Business divisions and the Chief Digital and Information Office (the CDIO)	GCRG
Model risk: the risk of adverse consequences (e.g., financial loss, due to legal matters, operational loss, biased business decisions, or reputational damage) resulting from decisions based on incorrect / inadequate or misused model outputs and reports.	Model owner	Risk Control
Legal risk: the financial or reputational implications resulting from the risk of: (i) being held liable for a breach of applicable laws, rules or regulations; (ii) being held liable for a breach of contractual or other legal obligations; (iii) an inability or failure to enforce or protect contractual rights or non-contractual rights sufficiently to protect UBS's interests, including the risk of being party to a claim in respect of any of the above (and the risk of loss of attorney–client privilege in the context of any such claim); (iv) a failure to adequately develop, supervise and resource legal teams or adequately supervise external legal counsel advising on business legal risk and other matters; and (v) a failure to adequately manage any potential, threatened and commenced litigation and legal proceedings, including civil, criminal, arbitration and regulatory proceedings, and / or litigation risk or any dispute or investigation that may lead to litigation or threat of any litigation.	Business divisions	Legal
Reputational risk: the risk of loss of and damage to reputation, loss of clients and investor confidence within the financial system.	All businesses and functions	All control functions

Top and emerging risks

The top and emerging risks disclosed below reflect those that we currently think have the potential to materialize within one year and which could significantly affect the Group. Investors should also carefully review all information set out in the “Risk factors” section of this report, where we discuss these and other material risks that we consider could have an effect on our ability to execute our strategy and may affect our business activities, financial condition, results of operations and business prospects.

- We remain watchful of a range of geopolitical developments across the world, including the Russia–Ukraine war, US–China and US–Iran tensions, and political changes in a number of countries. Geopolitical tensions will continue to create uncertainty, while the Russia–Ukraine war complicates the energy price outlook.
- Inflation appears to be moderating in the US and Europe, but there continue to be concerns regarding a potential resurgence and regarding the timing and extent of central bank policy responses (i.e., interest rate hikes and the tapering of quantitative easing).
- We are exposed to a number of macroeconomic issues, as well as general market conditions. As noted in “Market, credit and macroeconomic risks” in the “Risk factors” section of this report, these external pressures may have a significant adverse effect on our business activities and related financial results, primarily through reduced margins and revenues, asset impairments and other valuation adjustments. Accordingly, these macroeconomic factors are considered in the development of stress-testing scenarios for our ongoing risk management activities.
- We are exposed to substantial changes in the regulation of our businesses that could have a material adverse effect on our business, as discussed in the “Regulatory and legal developments” section of this report and in “Regulatory and legal risks” in the “Risk factors” section of this report.

- As a global financial services firm, we are subject to many different legal, tax and regulatory regimes and extensive regulatory oversight. We are exposed to significant liability risk, and we are subject to various claims, disputes, legal proceedings and government investigations, as noted in “Regulatory and legal risks” in the “Risk factors” section of this report. Information about litigation, regulatory and similar matters we consider significant is disclosed in “Note 17 Provisions and contingent liabilities” in the “Consolidated financial statements” section of this report.
- The geopolitical situation increases the likelihood of external state-driven cyber activity, and attacks are becoming increasingly sophisticated, which may result in business disruption or the corruption or loss of data. Additionally, as a result of the dynamic and material nature of recent geopolitical, environmental and health threats and the operational complexity of all our businesses, we are continually exposed to operational resilience scenarios such as process error, failed execution, system failures and fraud.
- Conduct risks are inherent in our businesses. Achieving fair outcomes for our clients, upholding market integrity and cultivating the highest standards of employee conduct are of critical importance to us. Management of conduct risks is an integral part of our risk management framework.
- Financial crime (including money laundering, terrorist financing, sanctions violations, fraud, bribery and corruption) presents significant risk. Heightened regulatory expectations and attention require investment in people and systems, while emerging technologies and changing geopolitical risks further increase the complexity of identifying and preventing financial crime. Refer to “Non-financial risk” in this section and “Strategy, management and operational risks” in the “Risk factors” section of this report for more information.
- ESG / sustainability and climate risks are in the focus of regulators and other stakeholders, in particular climate risks, nature-related risk and concerns about greenwashing, where UBS may be subject to reputational risk if not fully aligned with sustainability-related criteria. New standards and rules are developing in several jurisdictions, with the risk of divergent rules increasing and leading to an increased risk that UBS may not comply with all relevant regulations. Refer to “Sustainability and climate risk” and “Non-financial risk” in this section.
- New risks continue to emerge. For example, client demand for distributed ledger technology, blockchain-based assets and virtual currencies creates new risks, to which we currently have limited exposure and for which relevant control frameworks are being implemented.

Risk governance

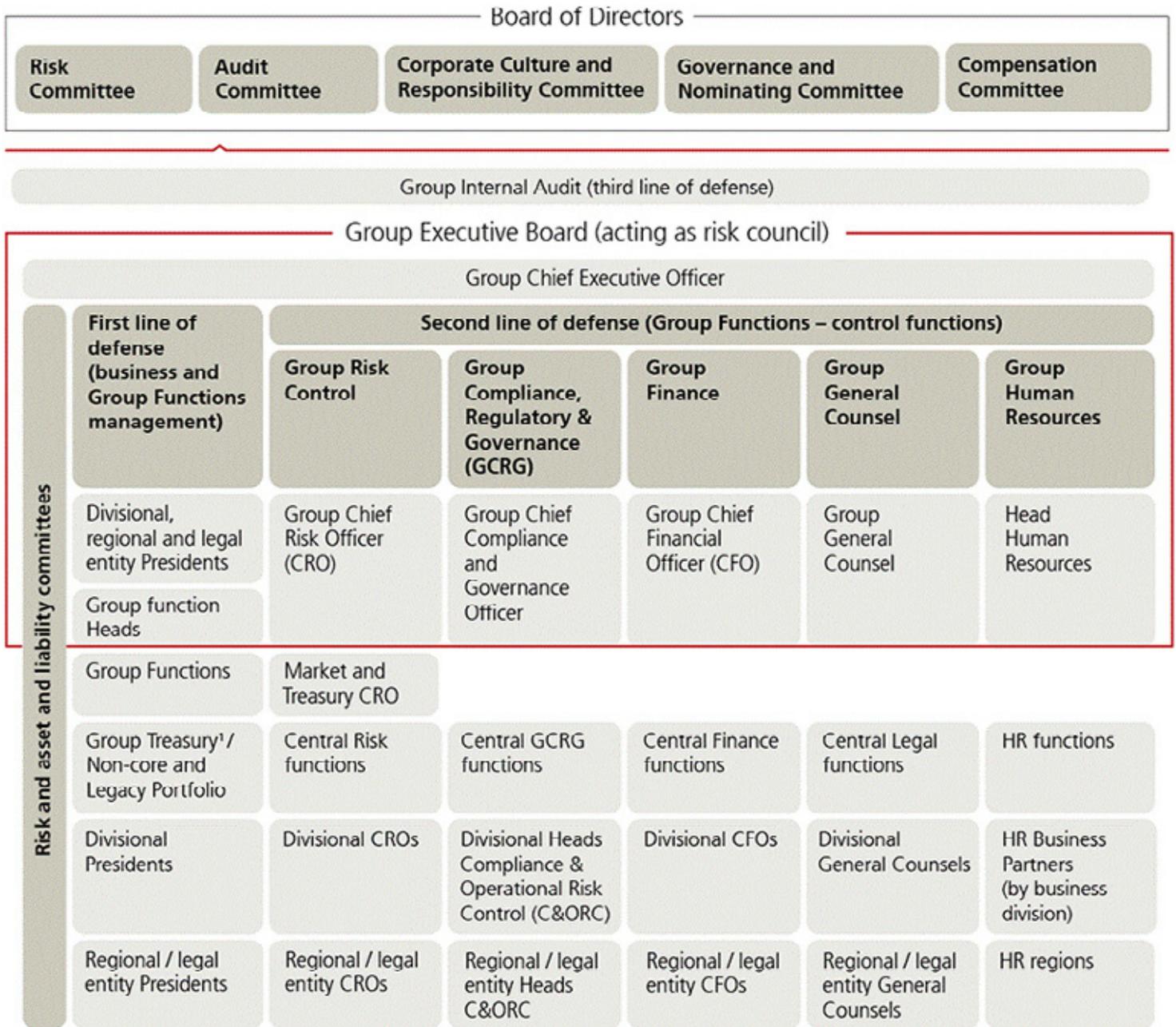
Our risk governance framework operates along three lines of defense.

Our first line of defense, business management, owns its risks and is accountable for maintaining effective processes and systems to manage them in compliance with applicable laws, rules and regulations, as well as internal standards, including identifying control weaknesses and inadequate processes.

Our second line of defense, control functions, is separate from the business and reports directly to the Group CEO. Control functions provide independent oversight, challenge financial and non-financial risks arising from the firm’s business activities, and establish independent frameworks for risk assessment, measurement, aggregation, control and reporting, protecting against non-compliance with applicable laws, rules and regulations.

Our third line of defense, Group Internal Audit (GIA), reports to the Chairman and to the Audit Committee. This function assesses the design and operating effectiveness and sustainability of processes to define risk appetite, governance, risk management, internal controls, remediation activities and processes to comply with legal and regulatory requirements and internal governance standards.

The key roles and responsibilities for risk management and control are shown in the chart below and described further below.



1 Part of Group Finance.

Audited | *The Board of Directors* (the BoD) approves the risk management and control framework of the Group, including the Group and business division overall risk appetite. The BoD is supported by its Risk Committee, which monitors and oversees the Group’s risk profile and the implementation of the risk framework approved by the BoD, and approves the Group’s risk appetite methodology. The Corporate Culture and Responsibility Committee (the CCRC) helps the BoD meet its duty to safeguard and advance UBS’s reputation for responsible and sustainable conduct, reviewing stakeholder concerns and expectations pertaining to UBS’s societal contribution and corporate culture. The Audit Committee assists the BoD with its oversight duty relating to financial reporting and internal controls over financial reporting, and the effectiveness of whistleblowing procedures and the external and internal audit functions.

The *Group Executive Board* (the GEB) has overall responsibility for establishing and implementing a risk management and control framework in the Group, managing the risk profile of the Group as a whole.

The *Group Chief Executive Officer* has responsibility and accountability for the management and performance of the Group, has risk authority over transactions, positions and exposures, and allocates business divisions and Group Functions risk limits approved by the BoD.

The *business division Presidents and Group functional heads* are responsible for the operation and management of their business divisions / Group Functions, including controlling the dedicated financial resources and risk appetite of the business divisions.

The *regional Presidents* ensure cross-divisional collaboration in their regions and are mandated to inform the GEB about any regional activities and issues that may give rise to actual or potentially material regulatory or reputational concerns.

The *Group Chief Risk Officer* (the Group CRO) is responsible for developing the Group’s risk management and control framework (including risk principles and risk appetite) for credit, market, country, treasury, model and sustainability and climate risks. This includes risk measurement and aggregation, portfolio controls and risk reporting. The Group CRO sets risk limits and approves credit and market risk transactions and exposures. Risk Control is also the central function for model risk management and control for all models used in UBS. A framework of policies and authorities support the risk control process.

The *Group Chief Compliance and Governance Officer* is responsible for developing the Group’s non-financial risk framework, which sets the general requirements for identification, management, assessment and mitigation of non-financial risk, and for ensuring that all non-financial risks are identified, owned and managed according to the non-financial risk appetite objectives, supported by an effective control framework.

The *Group Chief Financial Officer* is responsible for transparency in assessing the financial performance of the Group and the business divisions, and for managing the Group’s financial accounting, controlling, forecasting, planning and reporting. Additional responsibilities include managing UBS’s tax affairs, as well as treasury and capital management, including liquidity and funding risk and UBS’s regulatory ratios, Finance Artificial Intelligence & Data Analytics strategy and Group M&A.

The *Group General Counsel* manages the Group’s legal affairs (including litigation involving UBS), ensuring effective and timely assessment of legal matters impacting the Group or its businesses, and managing and reporting all litigation matters.

The *Head Human Resources* is responsible for independent oversight and challenge of employment-related risks.

Group Internal Audit (GIA) independently assesses the effectiveness of processes to define strategy and risk appetite and overall adherence to the approved strategy. It also assesses the effectiveness of governance processes and risk management, including compliance with legal and regulatory requirements and internal governance documents. The Head GIA reports to the Chairman of the BoD. GIA also has a functional reporting line to the BoD Audit Committee.

Some of these roles and responsibilities are replicated for significant legal entities of the Group. Designated *legal entity risk officers* oversee and control financial and non-financial risks for significant legal entities of UBS as part of the legal entity control framework, which complements the Group’s risk management and control framework. ▲

Risk appetite framework

We have a defined Group-level risk appetite, covering all financial and non-financial risk types, via a complementary set of qualitative and quantitative risk appetite statements. This is reviewed and recalibrated annually and presented to the BoD for approval.

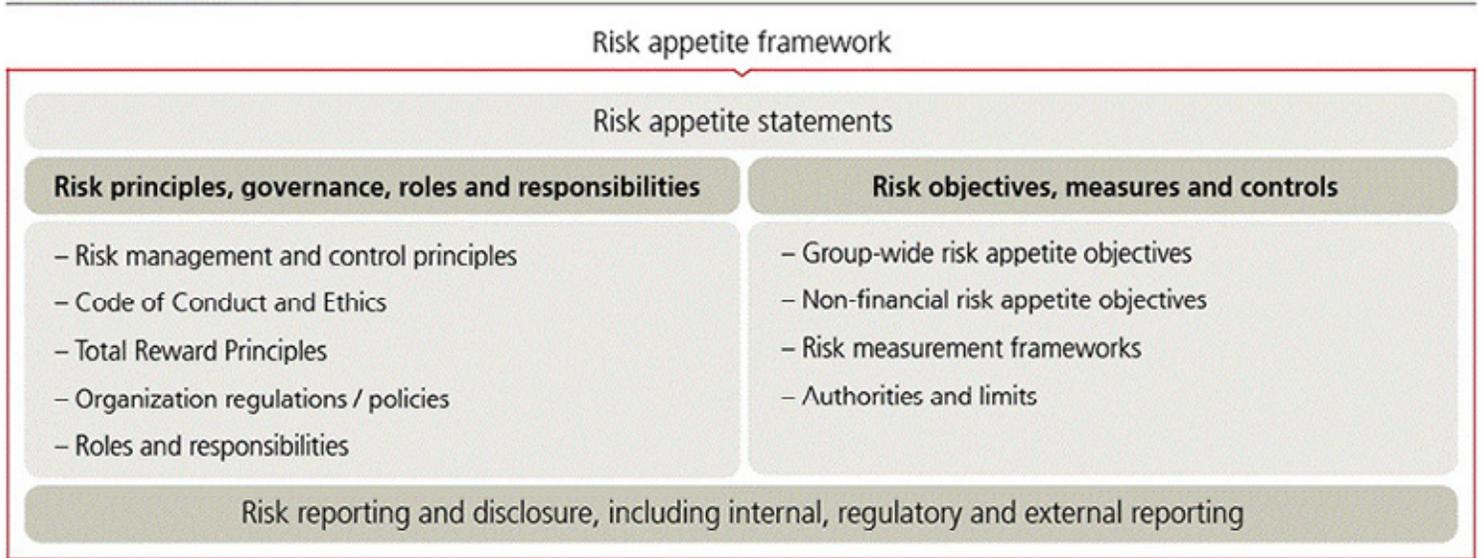
Our risk appetite is defined at the aggregate Group level and reflects the types of risk that we are willing to accept or wish to avoid. It is set via complementary qualitative and quantitative risk appetite statements defined at a firm-wide level and is embedded throughout our business divisions and legal entities by Group, business division and legal entity policies, limits and authorities. Our risk appetite is reviewed and recalibrated annually, with the aim of ensuring that risk-taking at every level of the organization is in line with our strategic priorities, our capital and liquidity plans, our *Pillars, Principles and Behaviors*, and minimum regulatory requirements. The “Risk appetite framework” chart below shows the key elements of the framework, which is described in detail in this section.

Qualitative risk appetite statements aim to ensure we maintain the desired risk culture. Quantitative risk appetite objectives are designed to enhance UBS’s resilience against the effects of potential severe adverse economic or geopolitical events. These risk appetite objectives cover UBS’s minimum capital and leverage ratios, solvency, earnings, liquidity and funding, and are subject to periodic review, including the yearly business planning process. These objectives are complemented by non-financial risk appetite objectives, which are set for each of our non-financial risk categories. A standardized quantitative firm-wide non-financial risk appetite has been established at the Group and business division levels. Non-financial risk events exceeding predetermined risk tolerances, expressed as percentages of UBS’s total revenue, must be escalated as per the firm-wide escalation framework to the respective business division President or higher, as appropriate.

The quantitative risk appetite objectives are supported by a comprehensive suite of risk limits set at a portfolio level to monitor specific portfolios and to control potential risk concentrations.

The status of risk appetite objectives is evaluated each month and reported to the BoD and the GEB. As our risk appetite may change over time, portfolio limits and associated approval authorities are subject to periodic reviews and changes, particularly in the context of our annual business planning process.

Our risk appetite framework is governed by a single overarching policy and conforms to the Financial Stability Board’s Principles for an Effective Risk Appetite Framework.



Risk principles and risk culture

Maintaining a strong risk culture is a prerequisite for success in today’s highly complex operating environment and a source of sustainable competitive advantage.

Our risk appetite framework combines all the important elements of our risk culture, expressed in our *Pillars, Principles and Behaviors*, our risk management and control principles, our Code of Conduct and Ethics, and our Total Reward Principles. Together these aim to align our decisions with the Group’s strategy, principles and risk appetite. They help create a solid foundation for promoting risk awareness, leading to appropriate risk-taking and the establishing of robust risk management and control processes. These principles are supported by a range of initiatives covering employees at all levels, for example the *UBS House View on Leadership*, which is a set of explicit expectations that establishes consistent leadership standards across UBS, and our Principles of Good Supervision, which establish clear expectations of managers and employees regarding supervisory responsibilities, specifically: to take responsibility; to know and organize their business; to know their employees and what they do; to create a good risk culture; and to respond to and resolve issues.

- **Refer to “Employees” in the “How we create value for our stakeholders” section of this report for more information about our Pillars, Principles and Behaviors**
- **Refer to the Code of Conduct and Ethics of UBS at ubs.com/code for more information**

Risk management and control principles

Protection of financial strength	Protecting UBS’s financial strength by controlling our risk exposure and avoiding potential risk concentrations at individual exposure levels, at specific portfolio levels and at an aggregate firm-wide level across all risk types.
Protection of reputation	Protecting our reputation through a sound risk culture characterized by a holistic and integrated view of risk, performance and reward, and through full compliance with our standards and principles, particularly our Code of Conduct and Ethics.
Business management accountability	Maintaining management accountability, whereby business management owns all risks assumed throughout the Group and is responsible for the continuous and active management of all risk exposures to provide for balanced risk and return.
Independent controls	Independent control functions that monitor the effectiveness of the businesses’ risk management and oversee risk-taking activities.
Risk disclosure	Disclosure of risks to senior management, the BoD, investors, regulators, credit rating agencies and other stakeholders with an appropriate level of comprehensiveness and transparency.

Whistleblowing policies and procedures exist to encourage an environment where staff are comfortable raising concerns. There are multiple channels via which individuals may, either openly or anonymously, escalate suspected breaches of laws, regulations, rules and other legal requirements, our Code of Conduct and Ethics, policies or relevant professional standards. We are committed to ensuring there is appropriate training and communication to staff and legal entity representatives, including information about new regulatory requirements.

Mandatory training programs cover various compliance-related and risk-related topics, including operational risk and anti-money laundering. Additional specialized training is provided depending on employees' specific roles and responsibilities; e.g., credit risk and market risk training for those working in trading areas. Our non-financial risk framework aims to identify and manage financial, regulatory and reputational risks, as well as risks to clients and markets.

Quantitative risk appetite objectives

Our quantitative risk appetite objectives aim to ensure that our aggregate risk exposure remains within desired risk capacity, based on capital and business plans. The specific definition of risk capacity for each objective is aimed at ensuring we have sufficient capital, earnings, funding and liquidity to protect our businesses and exceed minimum regulatory requirements under a severe stress event. The risk appetite objectives are evaluated during the annual business planning process and approved by the BoD. The comparison of risk exposure with risk capacity is a key consideration in decisions on potential adjustments to the business strategy, risk profile, and the level of capital returns to shareholders.

In the annual business planning process, UBS's business strategy is reviewed, the risk profile that our operations and activities result in is assessed, and that risk profile stressed. We use both scenario-based stress tests and statistical risk measurement techniques to assess the effects of severe stress events at a firm-wide level. These complementary frameworks capture exposures to material risks across our business divisions and Group Functions.

- Refer to “Risk measurement” in this section for more information about our stress testing and statistical stress frameworks

2022 quantitative risk appetite objectives

Group-wide quantitative risk appetite objectives

Minimum capital objectives

CET1 capital is sufficient to meet minimum RWA-based capital requirements even if a severe stress event were to occur.

Minimum leverage ratio objectives

CET1 capital is sufficient to meet minimum leverage-ratio-based capital requirements even if a severe stress event were to occur.

Solvency objectives

CET1 capital plus contingent capital is sufficient to ensure that the probability of loss for the firm's debt holders is consistent with the firm's target credit rating.

Earnings objectives

Losses do not exceed average historic earnings even if a severe stress event were to occur.

Liquidity objectives

Ensure that the firm has sufficient liquidity to survive a severe three-month idiosyncratic and market-wide liquidity stress event without government support, allowing for discrete management actions.

Funding objectives

Ensure that the firm has sufficient long-term funding to maintain franchise assets at a constant level under stressed market conditions for up to one year without government support, allowing for discrete management actions.

Risk capacity

Projected earnings
adjusted to reflect business risk

Capital
adjusted to reflect stress impact on capital-relevant elements

Risk exposure

Statistical measures
earnings-at-risk, capital-at-risk, risk-based capital

Stress measures
combined stress test

Credit risk

Country risk

Liquidity and funding risk

Pension risk

Market risk¹

Non-financial risk

Structural foreign-exchange risk

Granular limit framework

¹ Includes interest rate risk. Refer to “Risk categories” in this section for more information.

Our risk capacity is underpinned by performance targets and capital guidance as per our business plan. When determining our risk capacity in case of a severe stress event, we estimate projected earnings under stress, factoring in lower expected income and expenses. We also consider capital impacts under stress from deferred tax assets, pension plan assets and liabilities, and accruals for capital returns to shareholders.

Risk appetite objectives define the aggregate risk exposure acceptable at the firm-wide level, given our risk capacity. The maximum acceptable risk

exposure is supported by a full set of risk limits, which are cascaded to businesses and portfolios. These limits aim to ensure that our risks remain in line with risk appetite.

Risk appetite statements at the business division level are derived from the firm-wide risk appetite. They may also include division-specific strategic goals related to that division's activities and risks. Risk appetite statements are also set for certain legal entities, which must be consistent with the firm-wide risk appetite framework and approved in accordance with Group and legal entity regulations. Differences may exist that reflect the specific nature, size, complexity and regulations applicable to the relevant legal entity.

Internal risk reporting

Comprehensive and transparent reporting of risks is central to our risk governance framework's control and oversight responsibilities and required by our risk management and control principles. Accordingly, risks are reported at a frequency and level of detail commensurate with the extent and variability of the risk and the needs of the various governance bodies, regulators and risk authority holders.

The Group Risk Report provides a detailed qualitative and quantitative monthly overview of developments in financial and non-financial risks at the firm-wide level, including the status of our risk appetite objectives and the results of firm-wide stress testing. The Group Risk Report is distributed internally to the BoD and the GEB, and senior members of Risk Control, GIA, Finance and Legal. Risk reports are also produced for significant Group entities (entities subject to enhanced standards of corporate governance) and significant branches.

Granular divisional risk reports are provided to the respective business division CROs and business division Presidents. This monthly reporting is supplemented with daily or weekly reports, at various levels of granularity, covering market and credit risks for the business divisions to enable risk officers and senior management to monitor and control the Group's risk profile.

Our internal risk reporting covers financial and non-financial risks and is supported by risk data and measurement systems that are also used for external disclosure and regulatory reporting. Dedicated units within Risk Control assume responsibility for measurement, analysis and reporting of risk and for overseeing the quality and integrity of risk-related data. Our risk data and measurement systems are subject to periodic review by GIA, following a risk-based audit approach.

Model risk management

Introduction

We rely on models to inform risk management and control decisions, to measure risks or exposures, value instruments or positions, conduct stress testing, assess adequacy of capital, and manage clients' assets and our own assets. Models may also be used to measure and monitor compliance with rules and regulations, for surveillance activities, or to meet financial or regulatory reporting requirements.

Model risk is defined as the risk of adverse consequences (e.g., financial losses or reputational damage) resulting from incorrect or misused models.

Model governance framework

Our model governance framework establishes requirements for identifying, measuring, monitoring, reporting, controlling and mitigating model risk. All the models that we use are subject to governance and controls throughout their life cycles, with rigor, depth and frequency determined by the model's materiality and complexity. This is designed to ensure that risks arising from model use are identified, understood, managed, monitored, controlled and reported on both a model-specific and an aggregated level. Before they can be granted approval for use from the model sponsor, all our models are independently validated.

Once validated and approved for use, a model is subject to ongoing model monitoring and annual model confirmation, ensuring that the model is only used if it continues to be found fit for purpose. All models are subject to periodic model re-validation.

Our model risk governance framework follows our overarching risk governance framework, with the three lines of defense (LoD) assigned as follows.

- First LoD: model sponsors, model owners, model developers, and model users
- Second LoD: Chief Model Risk Officer, Model Risk Management & Control
- Third LoD: Group Internal Audit

An important difference as compared with how LoD are usually defined in financial and non-financial risk is that some models are owned by traditionally second LoD functions, such as Risk Control, Finance or Compliance.

Model risk appetite framework and statement

The model risk appetite framework sets out the model risk appetite statement, defines the relevant metrics and lays out how appropriate adherence is assessed.

Model oversight

Model oversight committees and forums ensure that model risk is overseen at different levels of the organization, appropriate model risk management and control actions are taken and, where necessary, escalated to the next level.

The Group Model Governance Committee is our most senior oversight and escalation body for all models in scope of our model governance framework. It is co-chaired by the Group CRO and the Group CFO and is responsible for: (i) reviewing and approving changes to the framework; (ii) approving the model risk appetite statement; (iii) overseeing adherence to the UBS model risk governance framework; and (iv) monitoring model risk at a firm-wide level.

Risk measurement

Audited | We apply a variety of methodologies and measurements to quantify the risks of our portfolios and potential risk concentrations. Risks that are not fully reflected within standard measures are subject to additional controls, which may include preapproval of specific transactions and the application of specific restrictions. Models to quantify risk are generally developed by dedicated units within control functions and are subject to independent validation. ▲

- **Refer to “Credit risk,” “Market risk” and “Non-financial risk” in this section for more information about model confirmation procedures**

Stress testing

We perform stress testing to estimate losses that could result from extreme yet plausible macroeconomic and geopolitical stress events to identify, better understand and manage our potential vulnerabilities and risk concentrations. Stress testing has a key role in our limits framework at the firm-wide, business division, legal entity and portfolio levels. Stress test results are regularly reported to the BoD and the GEB. As described in “Risk appetite framework,” stress testing, along with statistical loss measures, has a central role in our risk appetite and business planning processes.

Our stress testing framework has three pillars: (i) combined stress tests; (ii) an extensive set of portfolio- and risk-type-specific stress tests; and (iii) reverse stress testing.

Our *combined stress testing (CST)* framework is scenario-based and aims to quantify overall firm-wide losses that could result from various potential global systemic events. The framework captures all material risks, as covered in “Risk categories.” Scenarios are forward-looking and encompass macroeconomic and geopolitical stress events calibrated to different levels of severity. We implement each scenario through the expected evolution of market indicators and economic variables under that scenario and then estimate the overall loss and capital implications were the scenario to occur. At least once a year, the Risk Committee approves the most relevant scenario, known as the binding scenario, for use as the main scenario for regular CST reporting and for monitoring risk exposure against our minimum capital, earnings and leverage ratio objectives in our risk appetite framework.

We provide detailed stress loss analyses to the Swiss Financial Market Supervisory Authority (FINMA) and regulators of our legal entities in accordance with their requirements.

Our Enterprise-wide Stress Forum (the ESF) aims to ensure the consistency and adequacy of the assumptions and scenarios used for firm-wide stress measures. As part of its responsibilities, the ESF, with input from the Think Tank, a panel of senior representatives from the business divisions, Risk Control and Economic Research, seeks to ensure that the set of stress scenarios adequately reflects current and potential developments in the macroeconomic and geopolitical environment, current and planned business activities, and actual or potential risk concentrations and vulnerabilities in our portfolios.

Each scenario captures a wide range of macroeconomic variables, including GDP, equity prices, interest rates, foreign exchange rates, commodity prices, property prices and unemployment. We use assumed changes in these macroeconomic and market variables in each scenario to stress the key risk drivers of our portfolios. We also capture the business risk resulting from lower fee, interest and trading income net of lower expenses. These effects are measured for all businesses and material risk types to calculate the aggregate estimated effect of the scenario on profit or loss, other comprehensive income, risk-weighted assets, the leverage ratio denominator and, ultimately, capital and leverage ratios. The assumed changes in macroeconomic variables are updated periodically to account for changes in the current and possible future market environment.

In 2022, the binding scenario for CST was the internal *global crisis* scenario. In this scenario, weaker fiscal conditions resulting from the COVID-19 pandemic, combined with concerns around inflation, geopolitical tensions and accelerating policy actions toward a carbon-neutral economy, lead to sovereign defaults in several emerging markets. This then spills over into a Eurozone crisis, a hard landing in China and a global downturn. The macroeconomic impact is severe, as is the immediate market impact. Volatility in the bond markets spreads to other asset classes. Greece, Portugal and Cyprus lose market access and require substantial debt restructurings, while Greece leaves the Eurozone. Weak consumer and business confidence and a fall in global markets lead to a global recession. The fiscal response in many countries is limited due to the lack of fiscal headroom, while central banks resume expansionary monetary policy. China is hit severely by the slowdown in global demand and volatility in financial markets, which further weakens emerging market economies. The scenario was updated over the course of 2022 to incorporate evolving economic conditions, including rising interest rates across the globe.

As part of the CST framework, we routinely monitored three additional stress scenarios throughout 2022:

- The *global depression* scenario explores a resurgence of COVID-19 occurring in the midst of a global market downturn. A combination of political, solvency and liquidity concerns cause several large emerging markets to default, which triggers a broader sovereign crisis. Several European economies default, and some leave the Eurozone. A negative feedback loop between collapsing demand in developed and emerging markets, declining asset values and commodity prices, and disruption in the banking system leads to a deep and prolonged recession across the globe.
- The *severe Russia–Ukraine conflict* scenario was created in early 2022 in response to developments in Ukraine and explores a sharp and persistent rise in inflation due to an escalation of geopolitical tensions, leading to a significant rise in long-term interest rates and a period of market turbulence. Economic activity slows across the globe as both business and household sentiment collapse, while credit conditions deteriorate. Despite weakness in activity, inflation remains stubbornly high, forcing central banks to begin raising their policy rates and thereby prolonging the weakness in economic activity and asset prices.
- The *US monetary crisis* scenario explores a loss of confidence in the US, which leads to a sell-off of US dollar-denominated assets, sparking an abrupt and substantial depreciation of the US dollar. The US economy is hit hard, financial markets enter a period of high volatility and other industrialized countries replicate the cyclical pattern of the US. Regional inflation trends diverge as the US experiences significant inflationary pressures while other developed markets experience deflation.

We have updated the binding stress scenario in our CST framework for 2023. The new *stagflationary geopolitical crisis* scenario assumes that a geopolitical event leads to economic regionalization and fears of prolonged stagflation. Central banks signal a firm commitment to price stability and continue to tighten monetary policy, triggering a broad rise in interest rates and impacting economic activity and asset values. The *global crisis* scenario will continue to be maintained and run for monitoring purposes.

Portfolio-specific stress tests are measures tailored to the risks of specific portfolios. Our portfolio stress loss measures are derived from data on past events, but also include forward-looking elements (e.g., we derive the expected market movements in our liquidity-adjusted stress metric using a combination of historical market behavior, based on an analysis of historical events, and forward-looking analysis, including consideration of defined scenarios not modeled on any historical events). Results of portfolio-specific stress tests may be subject to limits to explicitly control risk-taking or may be monitored without limits to identify vulnerabilities.

Reverse stress testing starts from a defined stress outcome (e.g., a specified loss amount, reputational damage, a liquidity shortfall or a breach of regulatory capital ratios) and works backward to identify economic or financial scenarios that could result in such an outcome. As such, reverse stress testing is intended to complement scenario-based stress tests by assuming “what if” outcomes that could extend beyond the range normally considered, and thereby potentially challenge assumptions regarding severity and plausibility.

We also routinely analyze the effect of increases or decreases in interest rates and changes in the structure of yield curves.

Within Group Treasury, we also perform stress testing to determine the optimal asset and liability structure, enabling us to maintain an appropriately balanced liquidity and funding position under various scenarios. These scenarios differ from those outlined above, because they focus on specific situations that could generate liquidity and funding stress, as opposed to the scenarios used in the CST framework, which focus on the effect on profit or loss and capital.

- **Refer to “Credit risk” and “Market risk” in this section for more information about stress loss measures**
- **Refer to the “Capital, liquidity and funding, and balance sheet” section of this report for more information about stress testing**
- **Refer to “Note 19 Expected credit loss measurement” in the “Consolidated financial statements” section of this report for more information about scenarios used for expected credit loss measurement**

Statistical measures

We complement the scenario-based CST measures with our statistical stress measures to calculate and aggregate risks using statistical techniques to derive stress events at chosen confidence levels.

This framework is used to derive a loss distribution, considering effects on both income and expenses, based on the simulation of historically observed financial and economic risk factors in combination with the firm's actual earnings and relevant risk exposures. From that, we determine earnings-at-risk (EaR), measuring the potential shortfall in earnings (i.e., the deviation from forecast earnings) at a 95% confidence level and evaluated over a one-year horizon. EaR is used for the assessment of the earnings objectives in our risk appetite framework.

We extend the EaR measure, incorporating the effects of gains and losses recognized through other comprehensive income, to derive a distribution of potential effects of stress events on common equity tier 1 capital. From this distribution, we derive our capital-at-risk (CaR) buffer measure at a 95% confidence level to assess our capital and leverage ratio risk appetite objectives, and derive our CaR solvency measure at a 99.9% confidence level to assess our solvency risk appetite objective.

We use the CaR solvency measure as a basis for deriving the contributions of the business divisions to risk-based capital (RBC), which is a component of our equity attribution framework. RBC measures the potential capital impairment from an extreme stress event at a 99.9% confidence level.

- **Refer to the “Capital, liquidity and funding, and balance sheet” section of this report for more information about the equity attribution framework**

Portfolio and position limits

UBS maintains a comprehensive set of risk limits across its major risk portfolios. These portfolio limits are set based on our risk appetite and periodically reviewed and adjusted as part of the business planning process.

Firm-wide stress and statistical metrics are complemented by more granular portfolio and position limits, triggers and targets. Combining these measures provides a comprehensive framework for control of the key risks of our business divisions, as well as significant legal entities.

We apply limits to a variety of exposures at portfolio level, using statistical and stress-based measures, such as value-at-risk, liquidity-adjusted stress, loan underwriting limits, economic value sensitivity and portfolio default simulations for loan books. These are complemented with a set of controls for net interest income sensitivity, mark-to-market losses on available-for-sale portfolios, and the effect of foreign exchange movements on capital and capital ratios.

Portfolio measures are supplemented with counterparty- and position-level controls. Risk measures for position controls are based on market risk sensitivities and counterparty-level credit risk exposures. Market risk sensitivities include sensitivities to changes in general market risk factors (e.g., equity indices, foreign exchange rates and interest rates) and sensitivities to issuer-specific factors (e.g., changes in an issuer's credit spread or default risk). We monitor numerous market and treasury risk controls on a daily basis. Counterparty measures capture the current and potential future exposure to an individual counterparty, considering collateral and legally enforceable netting agreements.

- **Refer to “Credit risk” in this section for more information about counterparty limits**
- **Refer to “Risk appetite framework” in this section for more information about the risk appetite framework**

Risk concentrations

Audited | Risk concentrations may exist where one or several positions within or across different risk categories could result in significant losses relative to UBS's financial strength. Identifying such risk concentrations and assessing their potential impact is a critical component of our risk management and control process.

For financial risks, we consider a number of elements, such as shared characteristics of positions, the size of the portfolio and the sensitivity of positions to changes in the underlying risk factors. Also important in our assessment is the liquidity of the markets where the positions are traded, as well as the availability and effectiveness of hedges or other potential risk-mitigating factors. This includes an assessment of, for example, the provider of the hedge and market liquidity where the hedge might be traded. Particular attention is given to identification of wrong-way risk and risk on risk. Wrong-way risk is defined as a positive correlation between the size of the exposure and the likelihood of a loss. Risk on risk is when a position and its risk mitigation can be impacted by the same event.

For non-financial risks, risk concentrations may result from, for example, a single operational risk issue that is large on its own (i.e., it has the potential to produce a single high-impact loss or a number of losses that together are high impact) or related risk issues that may link together to create a high impact.

Risk concentrations are subject to increased oversight by Group Risk Control and Group Compliance, Regulatory & Governance, and assessed to determine whether they should be reduced or mitigated, depending on the available means to do so. It is possible that material losses could occur on financial or non-financial risks, particularly if the correlations that emerge in a stressed environment differ markedly from those envisaged by risk models. ▲

- **Refer to “Credit risk” and “Market risk” in this section for more information about the composition of our portfolios**
- **Refer to the “Risk factors” section of this report for more information**

Credit risk

Audited | Main sources of credit risk

- Global Wealth Management credit risk arises from lending against securities collateral, including derivative trading activity, and lending against residential and commercial real estate collateral, as well as corporate and other lending.
- A substantial portion of lending exposure arises from Personal & Corporate Banking, which offers mortgage loans, secured mainly by owner-occupied properties and income-producing real estate, as well as corporate loans, and therefore depends on the performance of the Swiss economy and real estate market.
- The Investment Bank's credit exposure arises mainly from lending, derivatives trading and securities financing. Derivatives trading and securities financing are mainly investment grade. Loan underwriting activity can be lower rated and give rise to temporary concentrated exposure.
- Credit risk within Non-core and Legacy portfolio relates to derivative transactions and securitized positions. ▲

Credit loss expense / release

Total net credit loss expenses were USD 29m in 2022, compared with net credit loss releases of USD 148m in the prior year, reflecting net expenses of USD 29m related to stage 1 and 2 positions.

Stage 1 and 2 expected credit loss expenses of USD 29m relate to lending to corporate clients not secured by mortgages (USD 21m), mainly driven by scenario effects related to downward revision of GDP and higher interest rate assumptions, and lending secured by mortgages (USD 16m), mainly driven by scenario effects related to higher interest rate assumptions, especially in the newly introduced stagflationary geopolitical crisis scenario, and adverse house price assumptions, partly offset by releases from other lending (USD 9m).

- Refer to “Note 1 Summary of material accounting policies,” “Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement” and “Note 19 Expected credit loss measurement” in the “Consolidated financial statements” section of this report for more information about IFRS 9 and expected credit losses

Credit loss expense / (release)

<i>USD m</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
For the year ended 31.12.22						
Stages 1 and 2	(5)	27	0	6	1	29
Stage 3	5	12	0	(18)	2	0
Total credit loss expense / (release)	0	39	0	(12)	3	29
For the year ended 31.12.21						
Stages 1 and 2	(28)	(62)	0	(34)	0	(123)
Stage 3	(1)	(24)	1	0	0	(25)
Total credit loss expense / (release)	(29)	(86)	1	(34)	0	(148)
For the year ended 31.12.20						
Stages 1 and 2	48	129	0	88	0	266
Stage 3	40	128	2	217	42	429
Total credit loss expense / (release)	88	257	2	305	42	694

Audited | Overview of measurement, monitoring and management techniques

- Credit risk from transactions with individual counterparties is based on our estimates of probability of default (PD), exposure at default (EAD) and loss given default (LGD). Limits are established for individual counterparties and groups of related counterparties covering banking and traded products, and for settlement amounts. Risk authorities are approved by the Board of Directors and are delegated to the Group CEO, the Group CRO and divisional CROs, based on risk exposure amounts, internal credit rating and potential for losses.
- Limits apply not only to the current outstanding amount but also to contingent commitments and the potential future exposure of traded products.
- The Investment Bank monitoring, measurement and limit framework distinguishes between exposures intended to be held to maturity (take-and-hold exposures) and those intended for distribution or risk transfer (temporary exposures).
- We use models to derive portfolio credit risk measures of expected loss, statistical loss and stress loss at Group-wide and business division levels, and to establish portfolio limits.

- Credit risk concentrations can arise if clients are engaged in similar activities, located in the same geographical region or have comparable economic characteristics, e.g., if their ability to meet contractual obligations would be similarly affected by changes in economic, political or other conditions. To avoid credit risk concentrations, we establish limits / operational controls that constrain risk concentrations at portfolio, sub-portfolio or counterparty levels for sector exposure, country risk and specific product exposures. ▲

Credit risk profile of the Group

The exposures detailed in this section are based on management's view of credit risk, which differs in certain respects from the expected credit loss (ECL) measurement requirements of International Financial Reporting Standards (IFRS). Internally, we put credit risk exposures into two broad categories: banking products and traded products. Banking products include drawn loans, guarantees and loan commitments, amounts due from banks, balances at central banks, and other financial assets at amortized cost. Traded products include over-the-counter (OTC) derivatives, exchange-traded derivatives (ETDs) and securities financing transactions (SFTs), consisting of securities borrowing and lending, and repurchase and reverse repurchase agreements.

Banking and traded products exposure in our business divisions and Group Functions

USD m	31.12.22					
	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
Banking products^{1,2}						
Gross exposure	334,621	236,508	1,454	76,585	37,986	687,152
of which: loans and advances to customers (on-balance sheet)	219,385	154,643	(1)	12,754	1,221	388,003
of which: guarantees and loan commitments (off-balance sheet)	13,147	28,610	0	12,920	7,486	62,163
Traded products^{2,3}						
Gross exposure	8,328	320	0	34,370		43,018
of which: over-the-counter derivatives	6,416	304	0	11,218		17,938
of which: securities financing transactions	0	0	0	17,055		17,055
of which: exchange-traded derivatives	1,912	15	0	6,097		8,024
Other credit lines, gross⁴	12,084	23,092	0	6,105	109	41,390
Total credit-impaired exposure, gross (stage 3) ¹	757	1,380	0	312	6	2,455
Total allowances and provisions for expected credit losses (stages 1 to 3)	215	701	0	168	7	1,091
of which: stage 1	68	138	0	49	4	259
of which: stage 2	57	156	0	54	0	267
of which: stage 3	90	406	0	64	3	564

USD m	31.12.21					
	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
Banking products^{1,2}						
Gross exposure	337,266	229,334	1,520	59,352	65,514	692,985
of which: loans and advances to customers (on-balance sheet)	228,598	152,847	0	13,720	3,445	398,611
of which: guarantees and loan commitments (off-balance sheet)	10,772	29,737	0	14,994	4,947	60,450
Traded products^{2,3}						
Gross exposure	9,582	783	0	35,950		46,314
of which: over-the-counter derivatives	7,186	766	0	9,767		17,719
of which: securities financing transactions	0	0	0	18,566		18,566
of which: exchange-traded derivatives	2,396	17	0	7,617		10,030
Other credit lines, gross⁴	12,947	24,174	0	3,629	28	40,778
Total credit-impaired exposure, gross (stage 3) ¹	729	1,617	0	264	0	2,610
Total allowances and provisions for expected credit losses (stages 1 to 3)	264	709	0	188	4	1,165
of which: stage 1	89	126	0	64	4	282
of which: stage 2	41	146	0	34	0	220
of which: stage 3	135	438	0	90	0	662

- 1 ECL gross exposure including other financial assets at amortized cost, but excluding cash, receivables from securities financing transactions, cash collateral receivables on derivative instruments, financial assets at FVOCI, irrevocable committed prolongation of existing loans and unconditionally revocable committed credit lines and forward starting reverse repurchase and securities borrowing agreements.
- 2 Internal management view of credit risk, which differs in certain respects from IFRS.
- 3 As counterparty risk for traded products is managed at counterparty level, no further split between exposures in the Investment Bank and Group Functions is provided.
- 4 Unconditionally revocable committed credit lines.

Banking products

- Refer to “Note 1 Summary of material accounting policies” in the “Consolidated financial statements” section of this report for more information about our accounting policy for allowances and provisions for ECL
- Refer to “Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement” and “Note 19 Expected credit loss measurement” in the “Consolidated financial statements” section of this report for more information about ECL measurement requirements under IFRS
- Refer to “Note 13a Other financial assets measured at amortized cost” in the “Consolidated financial statements” section of this report for more details

Global Wealth Management

Gross banking products exposure within Global Wealth Management decreased slightly to USD 335bn from USD 337bn.

Our Global Wealth Management loan portfolio is mainly secured by securities (Lombard loans) and by residential real estate. Most of our USD 154bn of Lombard loans, including traded products collateralized by securities, were of high quality, with 89% rated as investment grade based on our internal ratings and an average loan-to-value (LTV) of 49%. Moreover, Lombard loans are typically uncommitted, short term in nature and can be canceled immediately if the collateral quality deteriorates and margin calls are not met. In 2022, the Lombard book, including traded products, decreased by approximately 11%, while keeping a stable risk profile with regard to collateral concentrations with no material losses. The decrease was primarily driven by clients in Asia Pacific deleveraging on the back of ongoing market volatility. The share of non-standard Lombard loans, for example those with less liquid or concentrated collateral, slightly increased to 5% of the total Lombard book from 4%.

The mortgage book increased by approximately 8%, driven by higher volumes of mortgage loans in the US residential real estate portfolios (average LTV 48%) and by further expansion of the commercial real estate business to USD 5bn.

Other financings represent approximately 6% of the total banking products exposures and are consolidated in a corporate and other portfolio that increased by approximately 68% in 2022, mainly driven by private equity subscription facilities in the US, which are mostly investment grade rated.

Collateralization of Loans and advances to customers¹

<i>USD m, except where indicated</i>	UBS		<i>of which:</i> Global Wealth Management		<i>of which: Personal &</i> Corporate Banking		<i>of which:</i> Investment Bank	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Secured by collateral	367,159	377,857	216,993	225,591	138,851	138,344	10,724	11,200
<i>Residential real estate</i>	172,700	168,696	62,200	58,655	110,500	110,041	0	0
<i>Commercial / industrial real estate</i>	25,271	22,682	4,955	3,338	19,795	18,878	520	466
<i>Cash</i>	33,550	37,504	30,514	34,175	3,036	3,114	0	215
<i>Securities</i>	115,941	128,665	107,253	115,901	2,228	2,214	5,869	7,829
<i>Other collateral</i>	19,698	20,310	12,071	13,523	3,293	4,098	4,334	2,690
Subject to guarantees	2,957	3,954	144	616	2,758	3,338	55	0
Uncollateralized and not subject to guarantees	17,887	16,801	2,247	2,391	13,034	11,166	1,976	2,519
Total loans and advances to customers, gross	388,003	398,611	219,385	228,598	154,643	152,847	12,754	13,720
Allowances	(783)	(850)	(138)	(168)	(559)	(574)	(83)	(108)
Total loans and advances to customers, net of allowances	387,220	397,761	219,247	228,431	154,084	152,273	12,672	13,612
Collateralized loans and advances to customers in % of total loans and advances to customers, gross (%)	94.6	94.8	98.9	98.7	89.8	90.5	84.1	81.6

1 Collateral arrangements generally incorporate a range of collateral, including cash, securities, real estate and other collateral. UBS applies a risk-based approach that generally prioritizes collateral according to its liquidity profile.

Personal & Corporate Banking

Gross banking products exposure within Personal & Corporate Banking increased to USD 237bn, compared with USD 229bn in 2021. Net banking products exposure (excluding exposure reallocated from Group Treasury) was largely unchanged at USD 186bn (CHF 172bn), of which approximately 66% was classified as investment grade, broadly unchanged from 2021. Around 48% of the exposure is categorized in the lowest LGD bucket, i.e., 0–25%, compared with 50% in 2021. Personal & Corporate Banking’s gross loan portfolio was USD 155bn (CHF 143bn) compared with USD 153bn (CHF 139bn) in 2021. This portfolio is predominantly denominated in Swiss francs and the increase in Swiss franc terms was largely offset by the effect of the US dollar appreciating. As of 31 December 2022, 90% of this portfolio was secured by collateral, mainly residential and commercial property. Of the total unsecured amount, 86% related to cash flow-based lending to corporate counterparties and 3% related to lending to public authorities. Based on our internal ratings, 53% of the unsecured loan portfolio was rated as investment grade, compared with 50% in 2021.

Our Swiss corporate banking products take-and-hold portfolio, which was USD 36bn (CHF 33bn) and unchanged compared with 2021, consists of loans, guarantees and loan commitments to multi-national and domestic counterparties. The small and medium-sized entity (SME) portfolio, in particular, is well diversified across industries. However, such companies are reliant on the domestic economy and the economies to which they export, in particular the EU and the US.

Our commodity trade finance portfolio focuses on energy and base-metal trading companies, where the related commodity price risk is hedged to a large extent by the commodity trader. The majority of limits in this business are uncommitted, transactional and short-term in nature. Our portfolio size was USD 7bn (CHF 7bn) as of 31 December 2022, compared with USD 8bn (CHF 7bn) in 2021, with a considerable part of the exposure correlating with commodity prices.

Our exposure to banks consists primarily of contingent claims and was USD 5bn (CHF 5bn), compared with USD 6bn (CHF 5bn) in 2021.

Despite the Russia–Ukraine war, higher energy prices and supply chain bottlenecks, as well as the onset of monetary policy tightening, credit losses were at a low level in 2022. The delinquency ratio was 0.2% for the corporate portfolio, compared with 0.3% at the end of 2021.

- **Refer to “Credit risk models” in this section for more information about loss given default, rating grades and rating agency mappings**

Swiss mortgage loan portfolio

Our Swiss mortgage loan portfolio secured by residential and commercial real estate in Switzerland continues to be our largest loan portfolio. These mortgage loans, totaling USD 170bn (CHF 157bn), mainly originate from Personal & Corporate Banking, but also from Global Wealth Management Region Switzerland. Of these mortgage loans, USD 154bn (CHF 142bn) related to residential properties that the borrower was either occupying or renting out, with full recourse to the borrower. Of this USD 154bn (CHF 142bn), USD 111bn (CHF 103bn) is related to properties occupied by the borrower, with an average LTV ratio of 51%, compared with 52% as of 31 December 2021. The average LTV for newly originated loans for this portfolio was 63%, compared with 64% in 2021. The remaining USD 43bn (CHF 39bn) of the Swiss residential mortgage loan portfolio related to properties rented out by the borrower and the average LTV of that portfolio was 51%, compared with 52% as of 31 December 2021. The average LTV for newly originated Swiss residential mortgage loans for properties rented out by the borrower was 54%, compared with 55% in 2021.

As illustrated in the “Swiss mortgages: distribution of net exposure at default (EAD) across exposure segments and loan-to-value (LTV) buckets” table below, 99.9% of the aggregate amount of Swiss residential mortgage loans would continue to be covered by the real estate collateral even if the value assigned to that collateral were to decrease 20%, and more than 99% would remain covered by the real estate collateral even if the value assigned to that collateral were to decrease 30%.

Personal & Corporate Banking: distribution of banking products exposure across internal UBS ratings and loss given default (LGD) buckets¹

USD m, except where indicated

Internal UBS rating ²	31.12.22					Weighted average LGD (%)	31.12.21	
	Exposure	LGD buckets					Exposure	Weighted average LGD (%)
		0–25%	26–50%	51–75%	76–100%			
Investment grade	123,358	67,254	44,236	9,162	2,706	28	121,520	27
Sub-investment grade	62,219	22,924	25,168	11,790	2,336	35	63,141	34
<i>of which: 6–9</i>	56,774	21,053	22,976	10,592	2,153	35	57,955	34
<i>of which: 10–13</i>	5,445	1,871	2,193	1,199	182	36	5,185	36
Defaulted / Credit-impaired	1,380	24	1,151	205		42	1,617	42
Total exposure before deduction of allowances and provisions	186,957	90,202	70,555	21,158	5,042	30	186,278	29
Less: allowances and provisions	(664)						(674)	
Net banking products exposure¹	186,293						185,604	

1 Excluding balances at central banks and Group Treasury reallocations.

2 The ratings of the major credit rating agencies, and their mapping to our internal rating scale, are shown in the “Internal UBS rating scale and mapping of external ratings” table in this section.

Personal & Corporate Banking: loans uncollateralized and not subject to guarantees by industry sector

	31.12.22		31.12.21	
	USD m	%	USD m	%
Construction	172	1.3	166	1.5
Financial institutions	3,878	29.8	2,786	25.0
Hotels and restaurants	135	1.0	119	1.1
Manufacturing	1,715	13.2	1,555	13.9
Private households	1,473	11.3	1,488	13.3
Public authorities	416	3.2	419	3.8
Real estate and rentals	547	4.2	574	5.1
Retail and wholesale	2,230	17.1	1,971	17.7
Services	2,242	17.2	1,908	17.1
Other	226	1.7	180	1.6
Exposure, gross	13,034	100.0	11,166	100.0

Swiss mortgages: distribution of net exposure at default (EAD) across exposure segments and loan-to-value (LTV) buckets¹

USD bn, except where indicated

Exposure segment		31.12.22							31.12.21	
		LTV buckets							Total	Total
		≤30%	31–50%	51–60%	61–70%	71–80%	81–100%	>100%		
Residential mortgages	Net EAD	91.5	38.4	9.6	3.9	1.0	0.1	0.0	144.5	143.9
	as a % of row total	63	27	7	3	1	0	0	100	
Income-producing real estate	Net EAD	15.6	6.1	1.3	0.5	0.1	0.0	0.0	23.7	22.2
	as a % of row total	66	26	6	2	1	0	0	100	
Corporates	Net EAD	7.2	2.7	0.7	0.4	0.2	0.1	0.0	11.2	10.9
	as a % of row total	64	24	6	3	1	1	0	100	
Other segments	Net EAD	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.9	0.9
	as a % of row total	67	22	5	3	2	1	0	100	
Mortgage-covered exposure	Net EAD	114.8	47.4	11.6	4.9	1.2	0.3	0.1	180.3	177.9
	as a % of total	64	26	6	3	1	0	0	100	
Mortgage-covered exposure 31.12.21	Net EAD	111.2	47.0	12.2	5.5	1.5	0.3	0.1	177.9	
	as a % of total	63	26	7	3	1	0	0		

1 The amount of each mortgage loan is allocated across the LTV buckets to indicate the portion at risk at the various value levels shown; for example, a loan of 75 with an LTV ratio of 75% (i.e., a collateral value of 100) would result in allocations of 30 in the less-than-30% LTV bucket, 20 in the 31–50% bucket, 10 in the 51–60% bucket, 10 in the 61–70% bucket and 5 in the 71–80% bucket.

Investment Bank

The Investment Bank's lending activities are largely associated with corporate and non-bank financial institutions. The business is broadly diversified across industry sectors, but concentrated in North America.

The gross banking products exposure increased to USD 77bn as of 31 December 2022, compared with USD 59bn as of 31 December 2021, mostly driven by balances at central banks allocated to the business division. Excluding balances at central banks and Group Treasury reallocations, gross banking products exposure decreased to USD 32bn from USD 35bn in 2021, mostly driven by a decrease in irrevocable loan commitments. Based on our internal ratings, 50% of this gross banking products exposure was classified as investment grade. The vast majority of the gross banking products exposure had an estimated LGD below 50%.

Total mandated temporary loan underwriting exposure ended 2022 at USD 2.6bn, compared with USD 6.6bn at the end of the prior year. USD 2.3bn of commitments had not yet been distributed as originally planned as of 31 December 2022. Loan underwriting exposures are classified as held for trading, with fair values reflecting market conditions at the end of 2022.

- Refer to “Credit risk models” in this section for more information about LGD, rating grades and rating agency mappings

Investment Bank: distribution of banking products exposure across internal UBS ratings and loss given default (LGD) buckets¹

USD m, except where indicated

Internal UBS rating ²	31.12.22						31.12.21	
	Exposure	LGD buckets				Weighted average LGD (%)	Exposure	Weighted average LGD (%)
		0–25%	26–50%	51–75%	76–100%			
Investment grade	15,878	4,182	7,867	2,127	1,702	37	18,302	36
Sub-investment grade	15,522	4,872	6,324	4,128	198	23	16,250	20
of which: 6–9	9,174	2,746	2,380	3,879	169	17	10,467	14
of which: 10–13	6,348	2,127	3,944	249	29	32	5,783	31
Defaulted / Credit-impaired	312	273	27	9	3	21	264	33
Banking products exposure¹	31,712	9,327	14,218	6,264	1,904	30	34,815	28

1 Excluding balances at central banks and Group Treasury reallocations.

2 The ratings of the major credit rating agencies, and their mapping to our internal rating scale, are shown in the “Internal UBS rating scale and mapping of external ratings” table in this section.

Investment Bank: banking products exposure by geographical region¹

	31.12.22		31.12.21	
	USD m	%	USD m	%
Asia Pacific	4,766	15.0	5,154	14.8
Latin America	1,209	3.8	1,327	3.8
Middle East and Africa	183	0.6	212	0.6

North America	15,409	48.6	16,282	46.8
Switzerland	461	1.5	453	1.3
Rest of Europe	9,684	30.5	11,387	32.7
Exposure¹	<u>31,712</u>	<u>100.0</u>	<u>34,815</u>	<u>100.0</u>

1 Excluding balances at central banks and Group Treasury reallocations.

Investment Bank: banking products exposure by industry sector¹

	31.12.22		31.12.21	
	USD m	%	USD m	%
Banks	4,409	13.9	4,908	14.1
Chemicals	583	1.8	645	1.9
Electricity, gas, water supply	363	1.1	359	1.0
Financial institutions, excluding banks	14,587	46.0	13,353	38.4
Manufacturing	1,361	4.3	1,692	4.9
Mining	878	2.8	1,024	2.9
Public authorities	259	0.8	619	1.8
Real estate and construction	1,685	5.3	1,581	4.5
Retail and wholesale	1,654	5.2	2,793	8.0
Technology and communications	2,324	7.3	3,736	10.7
Transport and storage	499	1.6	414	1.2
Other	3,110	9.8	3,691	10.6
Exposure¹	31,712	100.0	34,815	100.0

¹ Excluding balances at central banks and Group Treasury reallocations.

Group Functions

Gross banking products exposure within Group Functions, which arises primarily in connection with treasury activities, decreased by USD 28bn to USD 38bn from balances at central banks. The decrease was mainly due to shifts within the high-quality liquid asset portfolio from cash into securities, a reduction in short-term debt, decreases in customer deposits, and outflows related to the share repurchase programs.

- Refer to “Balance sheet assets” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information
- Refer to the “Group Functions” section of this report for more information

Traded products

Audited | Counterparty credit risk (CCR) arising from traded products, which include OTC derivatives, ETD exposures and SFTs, originating in the Investment Bank, Non-core and Legacy Portfolio, and Group Treasury, is generally managed on a close-out basis. This takes into account possible effects of market movements on the exposure and any associated collateral over the time it would take to close out our positions. In the Investment Bank, limits are applied to the potential future exposure per counterparty, with the size of the limit dependent on the counterparty’s creditworthiness (as determined by Risk Control). Limit frameworks are also used to control overall exposure to specific classes or categories of collateral on a portfolio level. Such portfolio limits are monitored and reported to senior management.

Trading in OTC derivatives is conducted through central counterparties where practicable. Where central counterparties are not used, we have clearly defined policies and processes for trading on a bilateral basis. Trading is typically conducted under bilateral International Swaps and Derivatives Association or similar master netting agreements, which generally allow for close-out and netting of transactions in case of default, subject to applicable law. For most major market participant counterparties, we use two-way collateral agreements under which either party can be required to provide collateral in the form of cash or marketable securities when the exposure exceeds specified levels. This collateral typically consists of well-rated government debt or other collateral permitted by applicable regulations. For certain counterparties, an initial margin is taken to cover some or all of the calculated close-out exposure. This is in addition to the variation margin taken to settle changes in market value of transactions. Regulations on margining uncleared OTC derivatives continue to evolve. These generally expand the scope of bilateral derivatives activity subject to margining. They will also result in greater amounts of initial margin received from, and posted to, certain bilateral trading counterparties than had been required in the past. These changes should result in lower close-out risk over time. ▲

In the tables below, OTC derivatives exposures are generally presented as net positive replacement values after the application of legally enforceable netting agreements and the deduction of cash and marketable securities held as collateral. SFT exposures are reported taking into account collateral received, and ETD exposures take into account collateral margin calls.

- Refer to “Note 10 Derivative instruments” in the “Consolidated financial statements” section of this report for more information about OTC derivatives settled through central counterparties
- Refer to “Note 21 Offsetting financial assets and financial liabilities” in the “Consolidated financial statements” section of this report for more information about the effect of netting and collateral arrangements on derivative exposures

Investment Bank, Non-core and Legacy Portfolio and Group Treasury: traded products exposure

<i>USD m</i>	OTC derivatives	SFTs	ETDs	Total	Total
		<u>31.12.22</u>			<u>31.12.21</u>
Total exposure, before deduction of credit valuation adjustments and hedges	11,218	17,055	6,097	34,370	35,950
Less: credit valuation adjustments and allowances	(34)	(1)	0	(35)	(34)
Less: credit protection bought (credit default swaps, notional)	(109)			(109)	(119)
Net exposure after credit valuation adjustments, allowances and hedges	<u>11,075</u>	<u>17,055</u>	<u>6,097</u>	<u>34,226</u>	<u>35,797</u>

Investment Bank, Non-core and Legacy Portfolio and Group Treasury: distribution of net OTC derivatives and SFT exposure across internal UBS ratings and loss given default (LGD) buckets

USD m, except where indicated

Internal UBS rating ¹	31.12.22						31.12.21	
	Exposure	LGD buckets				Weighted average LGD (%)	Exposure	Weighted average LGD (%)
		0–25%	26–50%	51–75%	76–100%			
Net OTC derivatives exposure								
Investment grade	10,757	310	8,791	444	1,212	48	9,297	47
Sub-investment grade	318	13	114	14	177	72	317	59
<i>of which: 6–9</i>	285	9	89	13	174	76	249	62
<i>of which: 10–12</i>	28	0	25	0	2	41	46	64
<i>of which: 13 and defaulted</i>	5	3	0	2	0	23	22	14
Total net OTC derivatives exposure, after credit valuation adjustments and hedges	11,075	322	8,905	458	1,389	49	9,615	48
Net SFT exposure								
Investment grade	16,682	279	14,414	999	990	40	17,937	40
Sub-investment grade	373	0	151	45	177	71	629	69
Total net SFT exposure	17,055	279	14,565	1,044	1,166	41	18,566	41

1 The ratings of the major credit rating agencies, and their mapping to our internal rating scale, are shown in the “Internal UBS rating scale and mapping of external ratings” table in this section.

Investment Bank, Non-core and Legacy Portfolio and Group Treasury: net OTC derivatives and SFT exposure by geographical region

	Net OTC derivatives exposure				Net SFT exposure			
	31.12.22		31.12.21		31.12.22		31.12.21	
	USD m	%	USD m	%	USD m	%	USD m	%
Asia Pacific	1,249	11.3	1,586	16.5	4,906	28.8	5,380	29.0
Latin America	117	1.1	111	1.2	34	0.2	20	0.1
Middle East and Africa	615	5.6	112	1.2	483	2.8	360	1.9
North America	2,200	19.9	1,830	19.0	3,177	18.6	4,473	24.1
Switzerland	1,055	9.5	688	7.2	466	2.7	559	3.0
Rest of Europe	5,839	52.7	5,288	55.0	7,988	46.8	7,774	41.9
Exposure	11,075	100.0	9,615	100.0	17,055	100.0	18,566	100.0

Investment Bank, Non-core and Legacy Portfolio and Group Treasury: net OTC derivatives and SFT exposure by industry sector

	Net OTC derivatives exposure				Net SFT exposure			
	31.12.22		31.12.21		31.12.22		31.12.21	
	USD m	%	USD m	%	USD m	%	USD m	%
Banks	1,288	11.6	986	10.3	869	5.1	1,654	8.9
Chemicals	71	0.6	14	0.1	0	0.0	0	0.0
Electricity, gas, water supply	118	1.1	103	1.1	0	0.0	0	0.0
Financial institutions, excluding banks	8,614	77.8	7,174	74.6	14,865	87.2	15,866	85.5
Manufacturing	97	0.9	50	0.5	0	0.0	0	0.0
Mining	20	0.2	51	0.5	0	0.0	0	0.0
Public authorities	655	5.9	810	8.4	1,320	7.7	926	5.0
Retail and wholesale	29	0.3	22	0.2	0	0.0	0	0.0
Transport, storage and communication	115	1.0	255	2.6	0	0.0	0	0.0
Other	69	0.6	150	1.6	0	0.0	120	0.6
Exposure	11,075	100.0	9,615	100.0	17,055	100.0	18,566	100.0

Credit risk mitigation

Audited | We actively manage credit risk in our portfolios by taking collateral against exposures and by utilizing credit hedging. ▲

Lending secured by real estate

Audited | We use a scoring model as part of a standardized front-to-back process for credit decisions on originating or modifying Swiss mortgage loans. The model’s two key factors are the LTV ratio and an affordability calculation. ▲

The calculation of affordability takes into account interest payments, minimum amortization requirements and potential property maintenance costs in relation to gross income or rental income for rental properties. Interest payments are estimated using a predefined framework, which considers the potential for significant interest rate increases over the lifetime of the loan. The interest rate is set at 5% per annum in the context of the current environment.

For residential properties occupied by the borrower, the maximum LTV for the standard approval process is 80% and 60% for holiday homes and luxury real estate. For other properties, the maximum LTV allowed within the standard approval process ranges from 30% to 80%, depending on the type and age of the property, and the amount of renovation work needed.

Audited | The value we assign to each property is based on the lowest value determined from model-derived valuations, the purchase price, an asset value for income-producing real estate (IPRE), and, in some cases, an additional external valuation. ▲

Two separate models provided by a market-leading external vendor are used to derive property valuations for owner-occupied residential properties (ORPs) and IPRE. We estimate the current value of an ORP using a regression model (a hedonic model) based on statistical comparison against current transaction data. We derive the value of a property from the characteristics of the real estate itself, as well as those of its location. In addition to the initial valuation, values for ORPs are updated quarterly over the lifetime of the loan using region-specific real estate price indices. The price indices are sourced from an external vendor and subject to internal validation and benchmarking. We use these valuations quarterly to compute indexed LTV for all ORPs. A portfolio-specific monitoring system considers these along with other risk measures (e.g., rating and behavioral information) to identify higher-risk loans and triggers an assessment and reappraisal by client advisors and credit officers as needed.

For IPRE, the capitalization rate model is used to determine the property valuation by discounting estimated sustainable future income using a capitalization rate based on various attributes. These attributes consider regional and specific property characteristics, such as market and location data (e.g., vacancy rates), benchmarks (e.g., for running costs), and certain other standardized input parameters (e.g., property condition). Updated information regarding rental income from IPRE is requested from the client at least once every three years. Our portfolio-specific monitoring system alerts us to changes in rental income and other risk measures (e.g., LTV, rating, behavioral information), and triggers an assessment and reappraisal by client advisors and credit officers as needed.

To take market developments into account for these models, the external vendor regularly updates the parameters and / or refines the architecture for each model. Model changes and parameter updates are subject to the same validation procedures as our internally developed models.

Audited | We similarly apply underwriting guidelines for our Global Wealth Management Region Americas mortgage loan portfolio, taking into account loan affordability and collateral sufficiency. LTV standards are defined for the various mortgage types, such as residential mortgages or investment properties, based on associated risk factors, such as property type, loan size, and purpose. The maximum LTV allowed within the standard approval process ranges from 45% to 80%. In addition to LTV, other credit risk metrics, such as debt-to-income ratios, credit scores and required client reserves, are also part of our underwriting guidelines.

A risk limit framework is applied to the Global Wealth Management Region Americas mortgage loan portfolio. Limits are set to govern exposures within LTV categories, geographic concentrations, portfolio growth and high-risk mortgage segments, such as interest-only loans. These limits are monitored by a specialized credit risk monitoring team and reported to senior management. Supplementing this limit framework is a real estate lending policy and procedures framework, set up to govern real estate lending activities. Quality assurance and quality control programs monitor compliance with mortgage underwriting and documentation requirements.

For our mortgage loan portfolio in the Global Wealth Management regions of EMEA and Asia Pacific, we apply global underwriting guidelines with regional variations to allow for regulatory and market differentials. As in other regions, the underwriting guidelines take into account affordability and collateral sufficiency. Affordability is assessed at a stressed interest rate using, for residential real estate, the borrowers' sustainable income and declared liabilities, and for commercial real estate the quality and sustainability of rental income. For interest-only loans, a declared and evidenced repayment strategy must be in place. The applicable LTV for each mortgage is based on the quality and liquidity of the property and assessed against valuations from bank-appointed third-party valuers. Maximum LTV varies from 30% to 70%, depending on the type and location of the property, as well as other factors. Collateral sufficiency is often further supported by personal guarantees from related third parties. The overall portfolio is centrally assessed against a number of stress scenarios to ensure that exposures remain within predefined stress limits. ▲

- **Refer to “Swiss mortgage loan portfolio” in this section for more information about LTV in our Swiss mortgage portfolio**

Lombard lending

Audited | Lombard loans are secured by pledges of marketable securities, guarantees and other forms of collateral. Eligible financial securities are primarily liquid and actively traded transferable securities (such as bonds and equities), and other transferable securities, such as approved structured products for which regular prices are available and the issuer of the security provides a market. To a lesser degree, less liquid collateral is also used.

We derive lending values by applying discounts (haircuts) to the pledged collateral's market value. Haircuts for marketable securities are calculated to cover a possible change in value over a given close-out period and confidence level. Less liquid or more volatile collateral will typically have larger haircuts.

We assess concentration and correlation risks across collateral posted at a counterparty level, and at a divisional level across counterparties. We also perform targeted Group-wide reviews of concentration. Concentration of collateral in single securities, issuers or issuer groups, industry sectors, countries, regions or currencies may result in higher risk and reduced liquidity. In such cases, the lending value of the collateral, margin call and close-out levels are adjusted accordingly. ▲

Exposures and collateral values are monitored daily, with the aim of ensuring that the credit exposure is always within the established risk tolerance. A shortfall occurs when the lending value drops below the exposure; if it exceeds a defined trigger level, a margin call is initiated, requiring the client to provide additional collateral, reduce the exposure or take other action to bring exposure in line with the agreed lending value of the collateral. If a shortfall is not corrected within the required period, a close-out is initiated, through which collateral is liquidated, open derivative positions are closed and guarantees are called.

We conduct stress testing of collateralized exposures to simulate market events that reduce collateral value, increase exposure of traded products, or do both. For certain classes of counterparties, limits on such calculated stress exposures are applied and controlled at a counterparty level. Also, portfolio limits are applied across certain businesses or collateral types.

- **Refer to “Stress loss” in this section for more information about our stress testing**

Credit hedging

Audited | We use single-name credit default swaps (CDSs), credit-index CDSs, bespoke protection and other instruments to actively manage credit risk in the Investment Bank and Non-core and Legacy Portfolio. The aim is to reduce concentrations of risk from specific counterparties, sectors or portfolios and, for CCR, the profit or loss effect arising from changes in credit valuation adjustments (CVAs).

We have strict guidelines with regard to taking credit hedges into account for credit risk mitigation purposes. For example, when monitoring exposures against counterparty limits, we do not usually apply certain credit risk mitigants, such as proxy hedges (credit protection on a correlated but different name) or credit-index CDSs, to reduce counterparty exposures. Buying credit protection also creates credit exposure with regard to the protection provider. We monitor and limit exposures to credit protection providers, and also monitor the effectiveness of credit hedges as part of our overall credit exposures to the relevant counterparties. Trading with such counterparties is typically collateralized. For credit protection purchased to hedge the lending portfolio, this includes monitoring mismatches between the maturity of credit protection purchased and the maturity of the associated loan. Such mismatches result in basis risk and may reduce the effectiveness of the credit protection. Mismatches are routinely reported to credit officers and mitigating actions are taken when necessary. ▲

- **Refer to “Note 10 Derivative instruments” in the “Consolidated financial statements” section of this report for more information**

Mitigation of settlement risk

To mitigate settlement risk, we reduce actual settlement volumes by using multi-lateral and bi-lateral agreements with counterparties, including payment netting.

Foreign exchange transactions are our most significant source of settlement risk. We are a member of Continuous Linked Settlement (CLS), an industry utility that provides a multi-lateral framework to settle transactions on a delivery-versus-payment basis, thus reducing foreign-exchange-related settlement risk relative to the volume of business. However, mitigation of settlement risk through CLS and other means does not fully eliminate credit risk in foreign exchange transactions resulting from changes in exchange rates prior to settlement, which is managed as part of our overall credit risk management of OTC derivatives.

Credit risk models

Basel III – A-IRB credit risk models

Audited | We have developed tools and models to estimate future credit losses that may be implicit in our current portfolio. Exposures to individual counterparties are measured using three generally accepted parameters: PD, EAD and LGD. For a given credit facility, the product of these three parameters results in the expected loss (the EL). These parameters are the basis for the majority of our internal measures of credit risk, and key inputs for regulatory capital calculation under the advanced internal ratings-based (A-IRB) approach of the Basel III framework. We also use models to derive the portfolio credit risk measures of EL, statistical loss and stress loss. ▲

- **Refer to the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more information about the regulatory capital calculation under the advanced internal ratings-based approach**

Key features of our main credit risk models

	Portfolio in scope	Asset class	Model approach	Number of main models	Main drivers	Number of years of loss data ¹	
Probability of default	Sovereigns and central banks	Central governments and central banks	Scorecard	1	Political, institutional and economic indicators	>10	
	Owner-occupied mortgages in Switzerland and the US	Retail: residential mortgages	Scorecard	2	Behavioral data, affordability relative to income, property type, loan-to-value. Separate models for mortgages in Switzerland and the US	28	
	Income-producing real estate mortgages	Retail: residential mortgages, Corporates: specialized lending	Scorecard	1	Loan-to-value, debt service coverage, financial data (for large corporates only), behavioral data. Weights of risk drivers differ between corporate and private clients	28	
	Lombard lending	Retail: other retail, Corporates: other lending	Merton type	2	Separate models for structured margin lending and standard Lombard. Key risk drivers for both models: loan-to-value, historical asset returns, behavioral data	13–16	
	Small and medium-sized enterprises	Corporates: other lending	Scorecard	1	Financial data including balance sheet ratios and profit and loss, behavioral data. Weights of risk drivers differ depending on the corporate client sub-segment	28	
	Credit cards in Switzerland	Retail: qualifying revolving retail and other retail, Corporates: other lending	Scorecard	1	Client type and characteristics (revolver, transactor, new client, dormant client), and behavioral data	17	
	Banks	Banks and securities dealers	Scorecard	4	Financial data including balance sheet ratios and profit and loss. Separate models for banks – developed markets, banks – emerging markets, broker-dealers and investment banks, and private banks	15	
	Commodity traders	Corporates: specialized lending	Scorecard	1	Financial data including balance sheet ratios and profit and loss, as well as non-financial criteria	24	
	Aircraft financing	Corporates: other lending	Scorecard	1	Loan-to-value, AuM, strength of legal framework of source of wealth, and behavioral factors	16	
	Large corporates	Corporates: other lending	Scorecard / market data	3	Financial data including balance sheet ratios and profit and loss. Separate models for corporates with publicly traded and highly liquid stocks (market intelligence tool), private corporates, and leveraged corporates	15	
	Other portfolios	Corporates: other lending, Public-sector entities and multi-lateral development banks	Scorecard / pooled rating approach / rating template	10	Financial data and/or historical portfolio performance for pooled ratings. Separate models for hedge funds, managed funds, private equity funds, insurance companies, commercial real estate loans, debt REITs, mortgage originators, public-sector entities and multi-lateral development banks / supranationals	15	
	Loss given default	Owner-occupied mortgages in Switzerland and the US	Retail: residential mortgages	Statistical model	2	Loan-to-value, time since last valuation. Separate models for mortgages in Switzerland and the US	11–14
		Income-producing real estate mortgages	Retail: residential mortgages, Corporates: specialized lending	Statistical model	1	Loan-to-value, time since last valuation, property type, location indicator	11
Lombard lending		Retail: other retail, Corporates: other lending	Statistical model, simulation	2	Separate models for structured margin lending and standard Lombard. Key risk drivers for both models: historical observed loss rates, liquidity	13–14	
Small and medium-sized enterprises		Corporates: other lending	Statistical model	2	Separate models for mortgage and non-mortgage LGDs. Mortgage models: loan-to-value, time since last valuation, property type, location indicator. Non-mortgage models: historical observed loss rates	11–17	
Credit cards in Switzerland		Retail: qualifying revolving retail and other retail, Corporates: other lending	Statistical model	1	Collateral, accrued interests, client characteristics.	17	
Investment Bank – all counterparties		Across the asset classes	Statistical model	2	Counterparty and facility specific, including industry segment, collateral, seniority, legal environment and bankruptcy procedures. Specific model for sovereign LGDs based on econometric modeling of past default events using GDP per capita, government debt, and other quantitative and qualitative factors such as the share of multi-lateral debt service, the size of the banking sector and institutional quality	>10	
Exposure at default	Banking products	Across the asset classes	Statistical model	3	Separate models based on exposure type (committed credit lines, revocable credit lines, contingent products)	>10	

				Product-specific market drivers, e.g., interest rates. Separate models for OTC derivatives, ETDs and SFTs that generate the simulation of risk factors used for the credit exposure measure	
	Traded products	Across the asset classes	Statistical model	2	n/a

1 For sovereign and Investment Bank PD models, the length of internal portfolio history is shown in “Number of years of loss data.”

Internal UBS rating scale and mapping of external ratings

Internal UBS rating	1-year PD range in %	Description	Moody's Investors Service mapping	S&P mapping	Fitch mapping
0 and 1	0.00–0.02	Investment grade	Aaa	AAA	AAA
2	0.02–0.05		Aa1 to Aa3	AA+ to AA–	AA+ to AA–
3	0.05–0.12		A1 to A3	A+ to A–	A+ to A–
4	0.12–0.25		Baa1 to Baa2	BBB+ to BBB	BBB+ to BBB
5	0.25–0.50		Baa3	BBB–	BBB–
6	0.50–0.80	Sub-investment grade	Ba1	BB+	BB+
7	0.80–1.30		Ba2	BB	BB
8	1.30–2.10		Ba3	BB–	BB–
9	2.10–3.50		B1	B+	B+
10	3.50–6.00		B2	B	B
11	6.00–10.00		B3	B–	B–
12	10.00–17.00		Caa1 to Caa2	CCC+ to CCC	CCC+ to CCC
13	>17		Caa3 to C	CCC- to C	CCC- to C
Counterparty is in default	Default	Defaulted		D	D

Probability of default

PD estimates the likelihood of a counterparty defaulting on its contractual obligations over the next 12 months, and is assessed using rating tools tailored to the various categories of counterparties. The “Key features of our main credit risk models” table above gives an overview of the approaches used for our main asset classes and presents the main drivers of the PD. The rating tools for these asset classes are also calibrated to our internal credit rating scale (masterscale), designed to ensure a consistent assessment of default probabilities across counterparties.

The ratings of major credit rating agencies, and their mapping to our masterscale and internal PD bands, are shown in the “Internal UBS rating scale and mapping of external ratings” table above. For Moody’s and S&P, the mapping is based on the long-term average of one-year default rates available from these rating agencies, with Fitch ratings being mapped to the equivalent S&P ratings. For each external rating category, the average default rate is compared with our internal PD bands to derive a periodically reviewed mapping to our internal rating scale.

Exposure at default

EAD is the amount we expect to be owed by a counterparty at the time of possible default. We derive EAD from current exposure to the counterparty and possible future exposure development.

The EAD of an on-balance sheet loan is its notional amount, while for off-balance sheet commitments that are not drawn, credit conversion factors (CCFs) are used in order to obtain an expected on-balance sheet amount.

For traded products, we derive EAD by modeling the range of possible exposure outcomes at various points in time using scenario and statistical techniques. We assess the net amount that may be owed to us or that we may owe to others, taking into account the effect of market movements over the potential time it would take to close out positions.

We assess exposures where there is a material correlation between the factors driving the credit quality of the counterparty and those driving the potential future value of our traded products exposure (wrong-way risk), and we have established specific controls to mitigate such risks.

Loss given default

LGD is the magnitude of the likely loss if there is a default. Our LGD estimates, which consider downturn conditions, include loss of principal, interest and other amounts less recovered amounts. We determine LGD based on the likely recovery rate of claims against defaulted counterparties, which depends on the type of counterparty and any credit mitigation due to collateral or guarantees. Our estimates are supported by internal loss data and external information, where available. If we hold collateral, such as marketable securities or a mortgage on a property, LTV ratios are typically a key parameter in determining LGD. For risk-weighted asset (RWA) calculation, floors are applied to LGD in line with regulation.

Expected loss

We use the concept of expected loss to quantify future credit losses that may be implicit in our current portfolio. The expected loss for a given credit facility is a product of the three components described above, i.e., PD, EAD and LGD. We aggregate the expected loss for individual counterparties to derive expected portfolio credit losses.

IFRS 9 – ECL credit risk models

Expected credit loss

Expected credit loss (ECL) is defined as the difference between contractual cash flows and those UBS expects to receive, discounted at the effective interest rate (EIR). For loan commitments and other credit facilities in scope of ECL requirements, expected cash shortfalls are determined by considering expected future drawdowns. Rather than focusing on an average through-the-cycle (TTC) expected annual loss, the purpose of ECL is to estimate the amount of losses inherent in a portfolio based on current conditions and future outlook (a point-in-time (PIT) measure), whereby such a forecast has to include all information available without undue cost and effort, and address multiple scenarios where there is perceived non-linearity between changes in economic conditions and their effect on credit losses. From a credit risk modeling perspective, ECL parameters are generally derivations of the factors assessed for regulatory Basel III EL.

Comparison of Basel III EL and IFRS 9 ECL credit risk models

The IFRS 9 ECL concept has a number of key differences from our Basel III credit risk models, both in the loss estimation process and the result thereof. Most notably, regulatory Basel III EL parameters are TTC / downturn estimates, which might include a margin of conservatism, while IFRS 9 ECL parameters are typically PIT, reflecting current economic conditions and future outlook. The table below summarizes the main differences. Stage 1 and 2 ECL expenses in 2022 were USD 29m and respective allowances and provisions as of 31 December 2022 were USD 526m. This included ECL allowances and provisions of USD 485m related to positions under the Basel III advanced internal ratings-based (A-IRB) approach. Basel III EL for non-defaulted positions increased by USD 37m to USD 956m.

- **Refer to “Note 1 Summary of material accounting policies” in the “Consolidated financial statements” section of this report for more information about our accounting policy for allowances and provisions for ECL including key definitions relevant for the ECL calculation under IFRS 9**

The table below shows the main differences between the two expected loss measures.

Scope	<u>Basel III EL (advanced internal ratings-based approach)</u>	<u>IFRS 9 ECL</u>
	The Basel III A-IRB approach applies to most credit risk exposures. It includes transactions measured at amortized cost, at fair value through profit or loss and at fair value through OCI, including loan commitments and financial guarantees.	The IFRS 9 ECL calculation mainly applies to financial assets measured at amortized cost and debt instruments measured at fair value through OCI, as well as loan commitments and financial guarantees not at fair value through profit or loss.
12-month versus lifetime expected loss	The Basel III A-IRB approach takes into account expected losses resulting from expected default events occurring within the next 12 months.	In the absence of a significant increase in credit risk (SICR), a maximum 12-month ECL is recognized to reflect lifetime cash shortfalls that will result if a default event occurs in the 12 months after the reporting date (or a shorter period if the expected lifetime is less). Once an SICR event has occurred, a lifetime ECL is recognized considering expected default events over the life of the transaction.
Exposure at default (EAD)	EAD is the amount we expect a counterparty to owe us at the time of a possible default. For banking products, EAD equals book value as of the reporting date; for traded products, the vast majority of EAD is modeled. EAD is expected to remain constant over a 12-month period. For loan commitments, a credit conversion factor is applied to model expected future drawdowns over the 12-month period, irrespective of the actual maturity of a particular transaction. The credit conversion factor includes downturn adjustments.	EAD is generally calculated on the basis of the cash flows that are expected to be outstanding at the individual points in time during the life of the transaction, discounted to the reporting date using the effective interest rate. For loan commitments, a credit conversion factor is applied to model expected future drawdowns over the life of the transaction without including downturn assumptions. In both cases, the time period is capped at 12 months, unless an SICR has occurred.
Probability of default (PD)	PD estimates are determined on a through-the-cycle (TTC) basis. They represent historical average PDs, taking into account observed losses over a prolonged historical period, and therefore are less sensitive to movements in the underlying economy.	PD estimates will be determined on a point-in-time (PIT) basis, based on current conditions and incorporating forecasts for future economic conditions at the reporting date.
Loss given default (LGD)	LGD includes prudential adjustments, such as downturn LGD assumptions and floors. Similar to PD, LGD is determined on a TTC basis.	LGD should reflect the losses that are reasonably expected and prudential adjustments should therefore not be applied. Similar to PD, LGD is determined on the basis of a PIT approach.

Use of scenarios

n / a

Multiple forward-looking scenarios have to be taken into account to determine a probability-weighted ECL.

Further key aspects of credit risk models

Stress loss

We complement our statistical modeling approach with scenario-based stress loss measures. Stress tests are run regularly to monitor potential effects of extreme, but nevertheless plausible, events on our portfolios, under which key credit risk parameters are assumed to deteriorate substantially. Where we consider it appropriate, we apply limits on this basis. Stress scenarios and methodologies are tailored to portfolios' natures, ranging from regionally focused to global systemic events, and varying in time horizon.

- **Refer to “Stress testing” in this section for more information about our stress testing framework**

Credit risk model confirmation

Our approach to model confirmation involves both quantitative methods, such as monitoring compositional changes in portfolios and results of backtesting, and qualitative assessments, such as feedback from users on model output as a practical indicator of a model's performance and reliability.

Material changes in portfolio composition may invalidate the conceptual soundness of a model. We therefore perform regular analyses of the evolution of portfolios to identify such changes in the structure and credit quality of portfolios. This includes analyses of changes in key attributes, changes in portfolio concentration measures and changes in RWA.

- Refer to “Model risk management” in this section for more information

Backtesting

We monitor the performance of models by backtesting and benchmarking them, with model outcomes compared with actual results, based on our internal experience and externally observed results. To assess the predictive power of credit exposure models for traded products, such as OTC derivatives and ETD products, we statistically compare predicted future exposure distributions at different forecast horizons with realized values.

For PD, we derive a predicted distribution of the number of defaults. The observed number of defaults is compared with the upper tail of the predicted distribution. If the observed number of defaults is higher than a given upper tail quantile, we conclude there is evidence that the model may underpredict the number of defaults. Based on historical long-run average default rates and, if required, additional margin of conservatism, we also derive PD calibration targets and a lower boundary. As a general rule, if the portfolio average PD lies below the derived lower boundary, the rating tool is recalibrated.

For LGD, backtesting statistically tests whether the mean difference between the observed and predicted LGD is zero. If the test fails, there is evidence that our predicted LGD is too low. In such cases, and where these differences are outside expectations, models are recalibrated.

Main credit risk models backtesting by regulatory asset class

	Length of time series used for the calibration (in years)	Actual rates in %			Estimated average rates at the start of 2022 in %
		Average of last 5 years ¹	Min. of last 5 years ²	Max. of last 5 years ²	
Probability of default³					
Central governments and central banks	>10 ⁴	0.00	0.00	0.00	0.43
Banks and securities dealers	>10	0.03	0.00	0.13	0.65
Public-sector entities, multi-lateral development banks	>10	0.05	0.00	0.21	0.23
Corporates: specialized lending	>10	0.30	0.11	0.60	1.26
Corporates: other lending ⁵	>10	0.28	0.20	0.34	0.44
Retail: residential mortgages	>20	0.20	0.14	0.25	0.49
Retail: qualifying revolving retail exposure ⁵	>10	0.71	0.63	0.79	0.83
Retail: other retail ⁵	>10	0.09	0.05	0.19	0.20
Loss given default					
Central governments and central banks	>10				47.72
Banks and securities dealers	>10				53.38
Public-sector entities, multi-lateral development banks	>10				27.40
Corporates: specialized lending	>10	2.16	0.00	9.51	22.80
Corporates: other lending ⁵	>10	15.92	5.09	24.68	38.24
Retail: residential mortgages	>20	0.45	0.00	0.72	22.75
Retail: qualifying revolving retail exposure ⁵	>10	24.88	20.27	27.42	47.87
Retail: other retail ⁵	>10	8.20	4.80	13.54	24.37
Credit conversion factors					
Corporates	>10	21.65	6.93	38.08	38.10

1 Average of all observations over the last five years.

2 Minimum / maximum annual average of observations in any single year from the last five years. Yearly averages are only calculated where five or more observations occurred during that year.

3 Average PD estimation is based on all rated clients in the portfolio.

4 Sovereign PD model is calibrated to UBS masterscale, length of time series shows span of internal history for this portfolio.

5 During 2021, a new PD and LGD model for credit cards went live. Obligors subject to this model contribute to Corporates: other lending, Retail: qualifying revolving retail exposure, and Retail: other retail.

CCFs, used for the calculation of EAD for undrawn facilities with corporate counterparties, are dependent on several credit facility contractual dimensions. We compare the predicted amount drawn with observed historical use of such facilities by defaulted counterparties. If any statistically significant deviation is observed, the relevant CCFs are redefined.

The “Main credit risk models backtesting by regulatory asset class” table above compares the current model calibration for PD, LGD and CCFs with historical observed values over the last five years.

Changes to models and model parameters during the period

As part of our continuous efforts to enhance models to reflect market developments and newly available data, we updated several models in 2022.

In Personal & Corporate Banking and Global Wealth Management, we updated the PD model for owner-occupied residential properties in Switzerland and the LGD model for mortgages in Switzerland. In Global Wealth Management, we also recalibrated the PD model for aircraft financing and implemented some model updates for the standard Lombard model.

In the Investment Bank, a new PD model for private equity counterparties was introduced, and a redeveloped PD model for hedge funds went live. Additionally, we have implemented a new model for structured margin lending.

For CCR models, we recalibrated the market parameters in the SFT model, enhancing and automating the process, which is run on a daily basis. The transition from LIBOR required a number of model changes for CCR models, for traded products to be able to consume the new alternative reference rate curves.

Where required, changes to models and model parameters were approved by FINMA before being made.

- **Refer to “Risk-weighted assets” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information about the effect of the changes to models and model parameters on credit risk RWA**

Future credit risk-related regulatory capital developments

In December 2017, the Basel Committee on Banking Supervision (the BCBS) announced the finalization of the Basel III framework. In December 2022, the Swiss State Secretariat for International Finance changed the expected date on which the final Basel III guidelines are to enter into force, from 1 July 2024 to 1 January 2025. The updated framework makes a number of revisions to the internal ratings-based (IRB) approaches, namely: (i) removing the option of using the A-IRB approach for certain asset classes (including large and medium-sized corporate clients, and banks and other financial institutions); (ii) placing floors on certain model inputs under the IRB approach, e.g., PD and LGD; and (iii) introducing various requirements to reduce RWA variability (e.g., for LGD).

The published framework has a number of requirements that are subject to national discretion. Also, revisions to the credit valuation adjustment (CVA) framework were published, including the removal of the advanced CVA approach. UBS has a close dialogue with FINMA to discuss in detail the implementation objectives and prepare for a smooth transition of the capital regime for credit risk.

- **Refer to “Capital management objectives, planning and activities” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information about the development of RWA**
- **Refer to “Risk measurement” in this section for more information about our approach to model confirmation procedures**
- **Refer to the “Regulatory and legal developments” and “Risk factors” sections of this report for more information**

Credit policies for distressed assets

Non-performing

Audited | In line with the regulatory definition, we report a claim as non-performing when: (i) it is more than 90 days past due; (ii) it is subject to restructuring proceedings, where preferential conditions concerning interest rates, subordination, tenor, etc. have been granted in order to avoid default of the counterparty (forbearance); (iii) the counterparty is subject to bankruptcy / enforced liquidation proceedings in any form, even if there is sufficient collateral to cover the due payment; or (iv) there is other evidence that payment obligations will not be fully met without recourse to collateral.

Default and credit-impaired

UBS uses a single definition of default for classifying assets and determining the PD of its obligors for risk modeling purposes. The definition of default is based on quantitative and qualitative criteria. A counterparty is classified as defaulted when material payments of interest, principal or fees are overdue for more than 90 days, or more than 180 days for certain exposures in relation to loans to private and commercial clients in Personal & Corporate Banking and to private clients of Global Wealth Management Region Switzerland. UBS does not consider the general 90-day presumption for default recognition appropriate for those portfolios, given the cure rates, which show that strict application of the 90-day criterion would not accurately reflect the inherent credit risk. Counterparties are also classified as defaulted when: bankruptcy, insolvency proceedings or enforced liquidation have commenced; obligations have been restructured on preferential terms (forbearance); or there is other evidence that payment obligations will not be fully met without recourse to collateral. The latter may be the case even if, to date, all contractual payments have been made when due. If one claim against a counterparty is defaulted on, generally all claims against the counterparty are treated as defaulted.

An instrument is classified as credit-impaired if the counterparty is classified as defaulted and / or the instrument is identified as purchased or originated credit-impaired (POCI). An instrument is POCI if it has been purchased at a deep discount to its carrying amount following a risk event of the issuer or originated with a defaulted counterparty. Once a financial asset is classified as defaulted / credit-impaired (except POCI), it is reported as a stage 3 instrument and remains as such unless all past due amounts have been rectified, additional payments have been made on time, the position is not classified as credit-restructured, and there is general evidence of credit recovery. A three-month probation period is applied before a transfer back to

stages 1 or 2 can be triggered. However, most instruments remain in stage 3 for a longer period. As of 31 December 2022, we had no instruments classified as POCI on our books. ▲

Forbearance (credit restructuring)

Audited | If payment default is imminent or default has already occurred, we may grant concessions to borrowers in financial difficulties that we would otherwise not consider in the normal course of business, such as offering preferential interest rates, extending maturity, modifying the schedule of repayments, debt / equity swap, subordination, etc. When a forbearance measure takes place, each case is considered individually and the exposure is generally classified as defaulted. Forbearance classification remains until the loan is repaid or written off, non-preferential conditions are granted that supersede the preferential conditions, or the counterparty has recovered and the preferential conditions no longer exceed our risk tolerance.

Contractual adjustments when there is no evidence of imminent payment default, or where changes to terms and conditions are within our usual risk tolerance, are not considered to be forbore. ▲

Loss history statistics

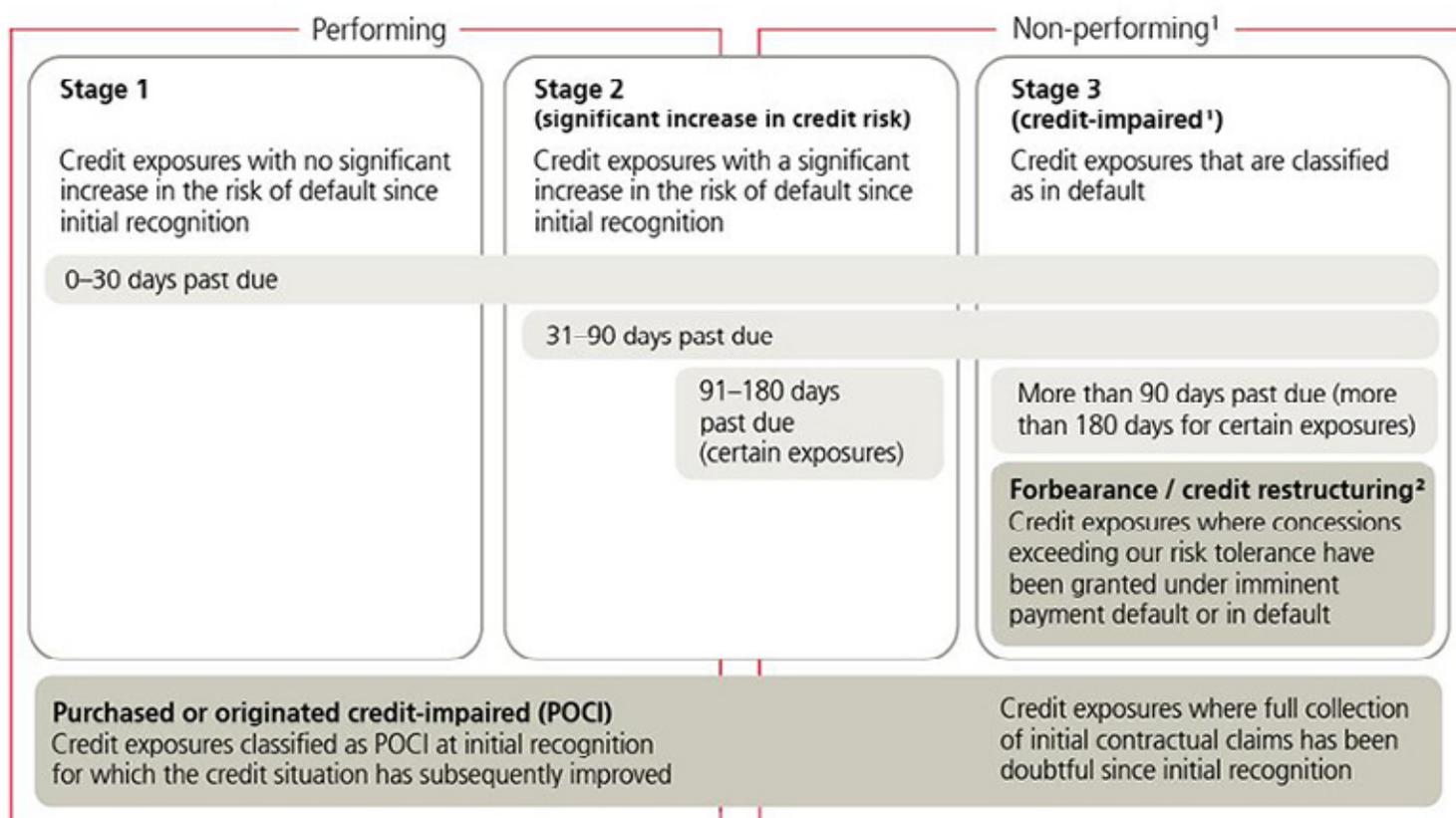
An instrument is classified as credit-impaired if the counterparty has defaulted. This also includes credit-impaired exposures for which no loss has occurred or for which no allowance has been recognized (e.g., we expect to fully recover the exposures via collateral held).

Coverage ratios are calculated for the core loan portfolio by taking ECL allowances and provisions divided by the gross carrying amount of the exposures. Core loan exposure is defined as the sum of Loans and advances to customers and Loans to financial advisors.

The total combined on- and off-balance sheet coverage ratio was at 21 basis points as of 31 December 2022, 1 basis point lower than on 31 December 2021. The combined stage 1 and 2 ratio of 10 basis points was unchanged compared with 31 December 2021; the stage 3 ratio was 22%, 2 percentage points lower than as of 31 December 2021.

- **The majority of the credit-impaired exposure relates to loans and advances in our Swiss domestic business. Refer to “Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement” and “Note 19 Expected credit loss measurement” in the “Consolidated financial statements” section of this report for more information about ECL measurement and the calculation of the coverage ratio**
- **Refer to “Note 13a Other financial assets measured at amortized cost” in the “Consolidated financial statements” section of this report for more details**

Exposure categorization



¹ Excluding purchased or originated credit-impaired instruments. ² May include purchased or originated credit-impaired instruments.

Loss history statistics

<i>USD m, except where indicated</i>	31.12.22	31.12.21	31.12.20	31.12.19	31.12.18
Banking products, core exposure on- and off-balance sheet, gross ¹	491,556	499,839	479,176	408,331	410,117
<i>of which: loans and advances to banks and customers (gross)</i>	402,801	414,099	396,049	340,003	338,000
Credit-impaired exposure, gross (stage 3)	2,455	2,610	3,778	3,113	3,154
<i>of which: credit-impaired loans and advances to banks and customers (stage 3)</i>	2,012	2,150	2,945	2,309	2,300
Non-performing loans and advances to banks and customers	2,333	2,387	3,176	2,466	2,419
ECL allowances and provisions for credit losses ²	1,091	1,165	1,468	1,029	1,054
<i>of which: core loan exposure (all stages)</i>	1,043	1,132	1,426	987	1,003
<i>of which: loans and advances to banks and customers (all stages)</i>	789	857	1,076	770	780
<i>of which: loans and advances to banks and customers (stage 3)</i>	474	572	703	559	549
Write-offs (stage 3)	95	137	356	142	210
<i>of which: write-offs for loans and advances to banks and customers</i>	74	118	348	122	192
Credit loss expense / (release) ³	29	(148)	694	78	118
Ratios					
Credit-impaired loans and advances to banks and customers as a percentage of loans and advances to banks and customers (gross)	0.5	0.5	0.7	0.7	0.7
Non-performing loans and advances to banks and customers as a percentage of loans and advances to banks and customers (gross)	0.6	0.6	0.8	0.7	0.7
ECL allowances for loans and advances to banks and customers as a percentage of loans and advances to banks and customers (gross)	0.2	0.2	0.3	0.2	0.2
Write-offs as a percentage of average loans and advances to banks and customers (gross) outstanding during the period	0.0	0.0	0.1	0.0	0.1

1 Core loan exposure is defined as the sum of Loans and advances to customers and Loans to financial advisors.

2 Includes provisions for ECL of guarantees and loan commitments and allowances for securities financing transactions.

3 Includes credit loss expense / (release) for other financial assets at amortized cost, guarantees, loan commitments, and securities financing transactions.

Market risk

Audited | Main sources of market risk

Market risks arise from both trading and non-trading business activities.

- Trading market risks are mainly connected with primary debt and equity underwriting and securities and derivatives trading for market-making and client facilitation in our Investment Bank, as well as the remaining positions in Non-core and Legacy Portfolio in Group Functions and our municipal securities trading business in Global Wealth Management.
- Non-trading market risks arise predominantly in the form of interest rate and foreign exchange risks connected with personal banking and lending in our wealth management business, our Swiss personal and corporate banking business, the Investment Bank's lending business, and treasury activities.
- Group Treasury assumes market risks in the process of managing interest rate risk, structural foreign exchange risk and the Group's liquidity and funding profile, including high-quality liquid assets (HQLA).
- Equity and debt investments can also give rise to market risks, as can some aspects of employee benefits, such as defined benefit pension schemes.

Audited | Overview of measurement, monitoring and management techniques

- Market risk limits are set for the Group, the business divisions, Group Treasury and Non-core and Legacy Portfolio at granular levels in the various business lines, reflecting the nature and magnitude of the market risks.
- Management value-at-risk (VaR) measures exposures under the market risk framework, including trading market risks and some non-trading market risks. Non-trading market risks not included in VaR are also covered in the risks controlled by Market & Treasury Risk Control, as set out below.
- Our primary portfolio measures of market risk are liquidity-adjusted stress (LAS) loss and VaR. Both are common to all business divisions and subject to limits that are approved by the Board of Directors (the BoD).
- These measures are complemented by concentration and granular limits for general and specific market risk factors. Our trading businesses are subject to multiple market risk limits, which take into account the extent of market liquidity and volatility, available operational capacity, valuation uncertainty, and, for our single-name exposures, issuer credit quality.

- Trading market risks are managed on an integrated basis at portfolio level. As risk factor sensitivities change due to new transactions, transaction expiries or changes in market levels, risk factors are dynamically rehedge to remain within limits. We do not generally seek to distinguish in the trading portfolio between specific positions and associated hedges.

- Issuer risk is controlled by limits applied at business division level based on jump-to-zero measures, which estimate maximum default exposure (the default event loss assuming zero recovery).
- Non-trading foreign exchange risks are managed under market risk limits, with the exception of Group Treasury management of consolidated capital activity.

Our Market & Treasury Risk Control function applies a holistic risk framework, setting the appetite for treasury-related risk-taking activities across the Group. Key elements of the framework include an overarching economic value sensitivity limit, set by the BoD, and the sensitivity of net interest income to changes in interest rates targets, set by the Group CEO. Limits are also set by the BoD to balance the effect of foreign exchange movements on our CET1 capital and CET1 capital ratio. Non-trading interest rate and foreign exchange risks are included in Group-wide statistical and stress testing metrics, which flow into our risk appetite framework.

Equity and debt investments are subject to a range of risk controls, including preapproval of new investments by business management and Risk Control and regular monitoring and reporting. They are also included in Group-wide statistical and stress testing metrics. ▲

- **Refer to “Currency management” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information about Group Treasury’s management of foreign exchange risks**
- **Refer to the “Capital, liquidity and funding, and balance sheet” section of this report for more information about the sensitivity of our CET1 capital and CET1 capital ratio to currency movements**

Market risk stress loss

The measurement and management of market risks include an extensive set of stress tests and scenario analyses, continuously evaluated to ensure that losses resulting from an extreme yet plausible event do not exceed our risk appetite.

Liquidity-adjusted stress

LAS is our primary stress loss measure for Group-wide market risk. The LAS framework captures the economic losses that could arise under specified stress scenarios. This is partially done by replacing the standard 1-day and 10-day holding period assumptions used for management and regulatory VaR with liquidity-adjusted holding periods, as explained below. Shocks are applied to positions based on expected market movements in the liquidity-adjusted holding periods resulting from the specified scenario.

The holding periods used for LAS are calibrated to reflect the time needed to reduce or hedge the risk of positions in each major risk factor in a stressed environment, assuming maximum utilization of the relevant position limits. We apply minimum holding periods, regardless of observed liquidity levels, as identification of and reaction to a crisis may not always be immediate.

The expected market movements are derived using historical market behavior (based on analysis of historical events) and forward-looking analysis including consideration of defined scenarios that have not occurred in the past.

LAS-based limits apply at several levels: Group, business division, Group Treasury, and Non-core and Legacy Portfolio; business area; and sub-portfolio. LAS is also the core market risk component of our combined stress test framework and therefore integral to our overall risk appetite framework.

- Refer to “Risk appetite framework” in this section for more information
- Refer to “Stress testing” in this section for more information about our stress testing framework

Value-at-risk

VaR definition

Audited | VaR is a statistical measure of market risk, representing the potential market risk losses over a set time horizon (holding period) at an established level of confidence. VaR assumes no change in the Group’s trading positions over the set time horizon.

We calculate VaR daily. The profit or loss distribution VaR is derived from our internally developed VaR model, which simulates returns over the holding period for those risk factors our trading positions are sensitive to, and subsequently quantifies the profit / loss effect of these risk factor returns on trading positions. Risk factor returns associated with general interest rate, foreign exchange and commodities risk factor classes are based on a pure historical simulation approach, using a five-year look-back window. Risk factor returns for selected issuer-based risk factors (e.g., equity prices and credit spreads) are split into systematic and residual issuer-specific components using a factor model approach. Systematic returns are based on historical simulation, and residual returns on a Monte Carlo simulation. VaR model profit or loss distribution is derived from the sum of systematic and residual returns in such a way that we consistently capture systematic and residual risk. Correlations among risk factors are implicitly captured via a historical simulation approach. When modeling risk factor returns, we consider the stationarity properties of the historical time series of risk factor changes. Depending on the stationarity properties of the risk factors within a given factor class, we model the factor returns using absolute returns or logarithmic returns. Risk factor return distributions are updated fortnightly.

Our VaR model does not have full revaluation capability, but we source full revaluation grids and sensitivities from front-office systems, enabling us to capture material non-linear profit-or-loss effects.

We use a single VaR model for both internal management purposes and determining market risk risk-weighted assets (RWA), although we consider different confidence levels and time horizons. For internal management purposes, we establish risk limits and measure exposures using VaR at a 95% confidence level with a 1-day holding period, aligned to the way we consider the risks associated with our trading activities. The regulatory measure of market risk used to underpin the market risk capital requirement under Basel III requires a measure equivalent to a 99% confidence level using a 10-day holding period. To calculate a 10-day holding period VaR, we use 10-day risk factor returns, with all observations equally weighted.

Additionally, the portfolio populations for management and regulatory VaR are slightly different. The one for regulatory VaR meets regulatory requirements for inclusion in regulatory VaR. Management VaR includes a broader range of positions. For example, regulatory VaR excludes credit spread risks from the securitization portfolio, which are treated instead under the securitization approach for regulatory purposes.

We also use stressed VaR (SVaR) for the calculation of market risk RWA. SVaR uses broadly the same methodology as regulatory VaR and is calculated using the same population, holding period (10-day) and confidence level (99%). Unlike regulatory VaR, the historical data set for SVaR is not limited to five years, instead covering the period from 1 January 2007 to the present. In deriving SVaR, we seek the largest 10-day holding period VaR for the current Group portfolio across all one-year look-back windows from 1 January 2007 to the present. SVaR is computed weekly. ▲

- Refer to the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more information about the regulatory capital calculation under the advanced internal ratings-based approach

Management VaR for the period

We continued to maintain management VaR at low levels, with average VaR at USD 11m, unchanged compared with 2021.

Audited |

Management value-at-risk (1-day, 95% confidence, 5 years of historical data) of our business divisions and Group Functions by general market risk type¹

		For the year ended 31.12.22							
<i>USD m</i>					Equity	Interest rates	Credit spreads	Foreign exchange	Commodities
	Min.				2	8	4	2	2
	Max.				17	18	9	11	7
	Average				6	10	5	3	3
				31.12.22	6	10	4	3	3
Total management VaR, Group	6	18	11	9	<i>Average (per business division and risk type)</i>				
Global Wealth Management	1	2	1	1	0	1	1	0	0
Personal & Corporate Banking	0	0	0	0	0	0	0	0	0
Asset Management	0	0	0	0	0	0	0	0	0
Investment Bank	6	17	10	8	6	9	5	3	3
Group Functions	3	5	4	5	1	4	3	1	0
Diversification effect ^{2,3}			(5)	(5)	(1)	(3)	(4)	(1)	0

		For the year ended 31.12.21							
<i>USD m</i>					Equity	Interest rates	Credit spreads	Foreign exchange	Commodities
	Min.				1	7	5	1	2
	Max.				35	13	11	9	5
	Average				7	9	7	3	3
				31.12.21	8	11	7	6	3
Total management VaR, Group	4	36	11	12	<i>Average (per business division and risk type)</i>				
Global Wealth Management	1	3	1	2	0	1	2	0	0
Personal & Corporate Banking	0	0	0	0	0	0	0	0	0
Asset Management	0	0	0	0	0	0	0	0	0
Investment Bank	3	36	11	11	7	9	7	3	3
Group Functions	4	8	5	4	0	4	4	1	0
Diversification effect ^{2,3}			(6)	(5)	0	(5)	(5)	(1)	0

1 Statistics at individual levels may not be summed to deduce the corresponding aggregate figures. The minima and maxima for each level may well occur on different days, and likewise, the VaR for each business line or risk type, being driven by the extreme loss tail of the corresponding distribution of simulated profits and losses for that business line or risk type, may well be driven by different days in the historical time series, rendering invalid the simple summation of figures to arrive at the aggregate total.

2 Difference between the sum of the standalone VaR for the business divisions and Group Functions and the VaR for the Group as a whole.

3 As the minima and maxima for different business divisions and Group Functions occur on different days, it is not meaningful to calculate a portfolio diversification effect.



VaR limitations

Audited | Actual realized market risk losses may differ from those implied by VaR for a variety of reasons.

- VaR is calibrated to a specified level of confidence and may not indicate potential losses beyond this confidence level.
- The 1-day time horizon used for VaR for internal management purposes (10-day for regulatory VaR) may not fully capture market risk of positions that cannot be closed out or hedged within the specified period.
- In some cases, VaR calculations approximate the effect of changes in risk factors on the values of positions and portfolios. This may happen due to the number of risk factors included in the VaR model needing to be limited.
- Effects of extreme market movements are subject to estimation errors, which may result from non-linear risk sensitivities, and the potential for actual volatility and correlation levels to differ from assumptions implicit in VaR calculations.
- Using a five-year window means sudden increases in market volatility will tend not to increase VaR as quickly as the use of shorter historical observation periods, but such increases will affect VaR for a longer period of time. Similarly, after periods of increased volatility, as markets stabilize, VaR predictions will remain more conservative for a period of time influenced by the length of the historical observation period.

SVaR is subject to the limitations noted for VaR above, but the use of one-year data sets avoids the smoothing effect of the five-year data set used for VaR and the absence of the five-year window gives a longer history of potential loss events. Therefore, although the significant period of stress during the 2007–2009 financial crisis is no longer contained in the historical five-year period used for management and regulatory VaR, SVaR continues to use that data. This approach aims to reduce the procyclicality of the regulatory capital requirements for market risks.

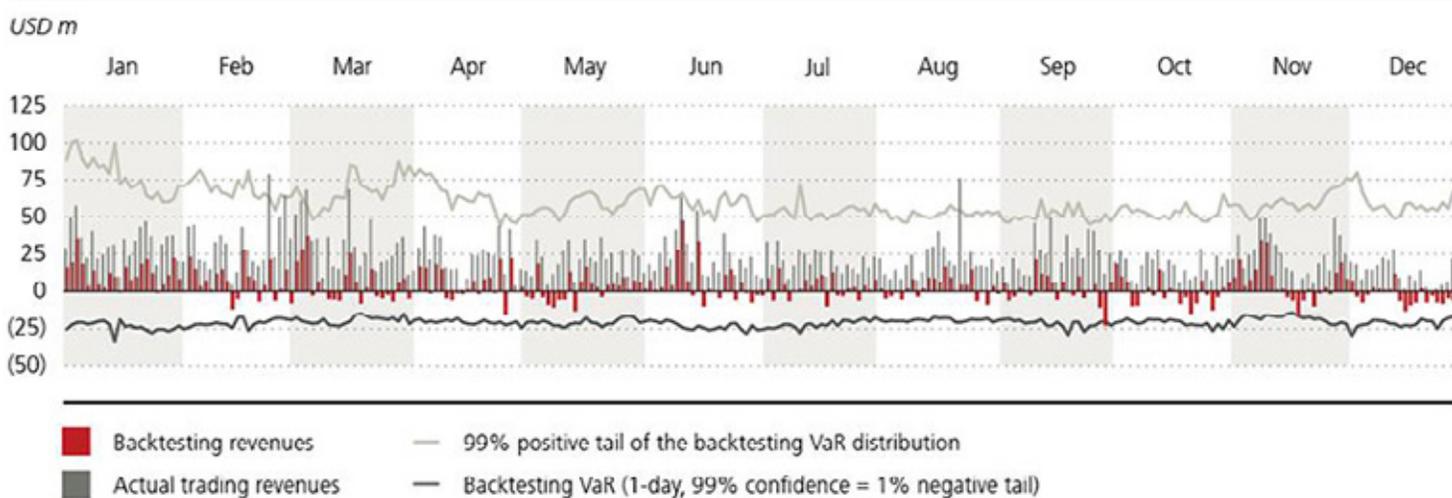
We recognize that no single measure can encompass all risks associated with a position or portfolio. We use a set of metrics with both overlapping and complementary characteristics to create a holistic framework that aims to ensure material completeness of risk identification and measurement. As a statistical aggregate risk measure, VaR supplements our liquidity-adjusted stress and comprehensive stress testing frameworks.

We also have a framework to identify and quantify potential risks not fully captured by our VaR model and refer to such risks as risks not in VaR. The framework underpins these potential risks with regulatory capital, calculated as a multiple of regulatory VaR and stressed VaR. ▲

Backtesting of VaR

VaR backtesting is a performance measurement process in which a 1-day VaR prediction is compared with the realized 1-day profit or loss (P&L). We compute backtesting VaR using a 99% confidence level and 1-day holding period for the regulatory VaR population. Since 99% VaR at UBS is defined as a risk measure that operates on the lower tail of the P&L distribution, 99% backtesting VaR is a negative number. Backtesting revenues exclude non-trading revenues, such as valuation reserves, fees and commissions, and revenues from intraday trading, so as to provide for a like-for-like comparison. A backtesting exception occurs when backtesting revenues are lower than the previous day's backtesting VaR.

Group: development of regulatory backtesting revenues¹ and actual trading revenues² against backtesting VaR³ (1-day, 99% confidence)



¹ Excludes non-trading revenues, such as valuation reserves, commissions and fees, and revenues from intraday trading. ² Includes backtesting revenues and revenues from intraday trading. ³ Based on Basel III regulatory VaR, excludes CVA positions and their eligible hedges, which are subject to the standalone CVA charge.

Statistically, given the 99% confidence level, two or three backtesting exceptions a year can be expected. More than four exceptions could indicate that the VaR model is not performing appropriately, as could too few exceptions over a long period. However, as noted for VaR limitations above, a sudden increase (or decrease) in market volatility relative to the five-year window could lead to a higher (or lower) number of exceptions. Therefore, Group-level backtesting exceptions are investigated, as are exceptional positive backtesting revenues, with the results reported to senior business management, the Group CRO and the Group Chief Market & Treasury Risk Officer. Internal and external auditors and relevant regulators are also informed about backtesting exceptions.

In the “Group: development of regulatory backtesting revenues and actual trading revenues against backtesting VaR” chart above, the asymmetry between the negative and positive tails is due to the long gamma risk profile historically run in the Investment Bank. The actual trading revenues include backtesting and intraday revenues.

The number of negative backtesting exceptions within a 250-business-day window decreased to one from four by the end of 2022. The Swiss Financial Market Supervisory Authority (FINMA) VaR multiplier derived from backtesting exceptions for market risk RWA was unchanged compared with the prior year, at 3.0.

VaR model confirmation

As well as for regulatory-purposes backtesting described above, we conduct extended backtesting for internal model confirmation purposes. This includes observing model performance across the entire P&L distribution (not just the tails), and at multiple levels within the business division hierarchies.

- **Refer to “Risk measurement” in this section for more information about our approach to model confirmation procedures**

VaR model developments in 2022

Audited | In the fourth quarter of 2022, we made an upgrade to our credit spread factor model, in which we significantly increased the coverage of single-name-issuer bond spread curves. The resulting RWA decrease was offset by an RWA increase arising from the introduction of a FINMA-agreed temporary measure. ▲

Future market risk-related regulatory capital developments In January 2019, the Basel Committee on Banking Supervision (the BCBS) published the final standards on the minimum capital requirements for market risk (the Fundamental Review of the Trading Book). In December 2022, the Swiss State Secretariat for International Finance changed the expected date on which the final Basel III guidelines are to enter into force, from 1 July 2024 to 1 January 2025. As a result, the Swiss implementation timeline would be aligned to the currently expected implementation timeline in the EU.

Key elements of the revised market risk framework include: (i) changes to the internal model-based approach, including changes to the model approval and performance measurement process; (ii) changes to the standardized approach with the aim of it being a credible fallback method for an internal model-based approach; and (iii) a revised boundary between trading book and banking book. UBS maintains a close dialogue with FINMA to discuss the implementation objectives in more detail and to provide a smooth transition of the capital regime for market risk.

In September 2021, FINMA mandated that UBS hold an RWA add-on for the omission of time decay in regulatory VaR and SVaR. The add-on reflects the outcome of discussions with FINMA regarding our regulatory VaR model, which started in late 2019. The integration of time decay into the regulatory VaR model, which would replace the add-on, is subject to further discussions between FINMA and UBS. The integration of time decay into regulatory VaR is expected to become effective in 2023. The FINMA-agreed temporary measure related to the credit spread factor model and the add-on related to time decay are expected to be removed with the integration of time decay into regulatory VaR.

- **Refer to “Risk-weighted assets” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information about the development of RWA including the regulatory add-on**
- **Refer to “Risk measurement” in this section for more information about our approach to model confirmation procedures**
- **Refer to the “Regulatory and legal developments” and “Risk factors” sections of this report for more information**

Interest rate risk in the banking book

Sources of interest rate risk in the banking book

Audited | Interest rate risk in the banking book (IRRBB) arises from balance sheet positions such as Loans and advances to banks, Loans and advances to customers, Financial assets at fair value not held for trading, Financial assets measured at amortized cost, Customer deposits, Debt issued measured at amortized cost, and derivatives, including those subject to hedge accounting. Fair value changes to these positions may affect other comprehensive income (OCI) or the income statement, depending on their accounting treatment.

Our largest banking book interest rate exposures arise from customer deposits and lending products in Global Wealth Management and Personal & Corporate Banking, as well as from debt issuance, liquidity buffers and interest rate hedges in Group Treasury. The inherent interest rate risks stemming from Global Wealth Management and Personal & Corporate Banking are generally transferred to Group Treasury, to manage them centrally together with our modeled interest rate duration assigned to equity, goodwill and real estate. This makes the netting of interest rate risks across different sources

possible, while leaving the originating businesses with commercial margin and volume management. The residual interest rate risk is mainly hedged with interest rate swaps, to the vast majority of which we apply hedge accounting. Short-term exposures and most of our HQLA classified as Financial assets at fair value not held for trading are hedged with derivatives accounted for on a mark-to-market basis. Long-term fixed-rate debt issued and HQLA hedged with external interest rate swaps are designated in fair value hedge accounting relationships.

Risk management and governance

IRRBB is measured using several metrics, the most relevant of which are the following.

- Economic value of equity (EVE) sensitivity to yield curve moves is calculated as changes in the present value of future cash flows irrespective of accounting treatment. They are also the key risk factors for statistical and stress-based measures, e.g., value-at-risk and stress scenarios, as well as the regulatory interest rate scenarios. These are measured and reported daily. The regulatory IRRBB EVE exposure is the most adverse regulatory interest rate scenario that is netted across currencies. It excludes the sensitivity from additional tier 1 (AT1) capital instruments (as per specific FINMA requirements) and the modeled interest rate duration assigned to equity, goodwill and real estate. UBS also applies granular internal interest rate shock scenarios to its banking book positions to monitor its specific risk profile.
- Net interest income (NII) sensitivities to yield curve moves are calculated as changes of baseline NII over a set time horizon, which we internally compute by assuming interest rates in all currencies develop according to their market-implied forward rates and assuming constant business volumes and no specific management actions. The sensitivities are measured and reported monthly. Our Pillar 3 disclosure (as per specific FINMA requirements) excludes the contribution from cash held at central banks.

We actively manage IRRBB, with the aim of reducing the volatility of NII subject to limits and triggers for EVE and NII exposure at consolidated and significant legal entity levels.

The Group Asset and Liability Committee (ALCO) and, where relevant, ALCOs at a legal entity level perform independent oversight over the management of IRRBB, which is also subject to Group Internal Audit and model governance.

- **Refer to “Group Internal Audit” in the “Corporate governance” section of this report and to “Risk measurement” in this section for more information**

Key modeling assumptions

The cash flows from customer deposits and lending products used in calculation of EVE sensitivity exclude commercial margins and other spread components, are aggregated by daily time buckets and are discounted using risk-free rates. Our external issuances are discounted using UBS’s senior debt curve, and capital instruments are modeled to the first call date. NII sensitivity, which includes commercial margins, is calculated over a one-year time horizon, assuming constant balance sheet structure and volumes, and considers embedded interest rate options.

The average repricing maturity of non-maturing deposits and loans is determined via target replication portfolios designed to protect product margins. Optimal replicating portfolios are determined at granular currency- and product-specific levels by simulating and applying a real-world market rate model to historically calibrated client rate and volume models.

We use an econometric prepayment model to forecast prepayment rates on US mortgage loans in UBS Bank USA and agency mortgage-backed securities (MBSs) held in various liquidity portfolios of UBS Americas Holding LLC consolidated. These prepayment rates are used to forecast both mortgage loan and MBS balances under various macroeconomic scenarios. The prepayment model is used for a variety of purposes, including risk management and regulatory stress testing. Swiss mortgages and fixed-term deposits generally do not carry similar optionality, due to prepayment and early redemption penalties. ▲

Effect of interest rate changes on shareholders’ equity and CET1 capital

The “Accounting and capital effect of changes in interest rates” table below shows the effects on shareholders’ equity and CET1 capital of gains and losses from changes in interest rates in the main banking book positions. We use derivatives to hedge interest rate risks in the banking book and these reflect changes in interest rates as an immediate fair value gain or loss, recognized either in the income statement or through OCI. Where hedged items are accrual accounted, we aim to minimize accounting asymmetries by applying hedge accounting to reflect the economic hedge relationship.

In a rising rate scenario, we would have an initial decrease in shareholders’ equity as a result of fair value losses on our derivatives recognized in OCI. This would be compensated over time by increased NII for higher interest rates. The effect on CET1 capital would be much lower as gains and losses on interest rate swaps designated as cash flow hedges are not recognized for regulatory capital purposes.

Accounting and capital effect of changes in interest rates¹

	Timing	Recognition Income statement / OCI	Shareholders' equity		CET1 capital	
			Gains	Losses	Gains	Losses
Loans and deposits at amortized cost ^{2,3}	Gradual	Income statement	●	●	●	●
Other financial assets and liabilities measured at amortized cost ²	Gradual	Income statement	●	●	●	●
Debt issued measured at amortized cost ^{2,3}	Gradual	Income statement	●	●	●	●
Receivables and payables from securities financing transactions ²	Gradual	Income statement	●	●	●	●
Financial assets at fair value not held for trading	Immediate	Income statement	●	●	●	●
Financial assets at fair value through other comprehensive income	Immediate	OCI	●	●		●
Derivatives designated as cash flow hedges	Immediate	OCI4	●	●		
Derivatives designated as fair value hedges ⁵	Immediate	Income statement	●	●	●	●
Derivatives transacted as economic hedges	Immediate	Income statement	●	●	●	●

- 1 Refer to the “Reconciliation of IFRS equity to Swiss SRB common equity tier 1 capital” table in the “Capital, liquidity and funding, and balance sheet” section of this report for more information about the differences between shareholders’ equity and CET1 capital.
- 2 For fixed-rate financial instruments, changes in interest rates affect the income statement when these instruments roll over and reprice.
- 3 For hedge accounted items, a fair value adjustment is applied in line with the treatment of the hedging derivatives.
- 4 Excluding hedge ineffectiveness that is recognized in the income statement in accordance with IFRS.
- 5 The fair value of the derivatives is offset by the fair value adjustment of the hedged items. Under the fair value hedge program applied to cross-currency swaps and foreign currency debt, the foreign currency basis spread is excluded from the hedge designation and accounted for through OCI, which is included in CET1.

Economic value of equity sensitivity

Audited | The EVE sensitivity in the banking book to a +1-basis-point parallel shift in yield curves was negative USD 25.0m as of 31 December 2022, compared with negative USD 29.9m as of 31 December 2021, the change predominantly driven by rising market rates. This excludes the sensitivity of USD 3.4m from additional tier 1 (AT1) capital instruments (as per specific FINMA requirements) in contrast to general Basel Committee on Banking Supervision (BCBS) guidance.

The majority of our interest rate risk in the banking book is a reflection of the net asset duration that we run to offset our modeled sensitivity of net USD 19.6m (31 December 2021: USD 22.1m) assigned to our equity, goodwill and real estate, with the aim of generating a stable NII contribution. Of this, USD 14.0m and USD 4.8m are attributable to the US dollar and the Swiss franc portfolios, respectively (31 December 2021: USD 15.6m and USD 5.5m, respectively).

In addition to the sensitivity mentioned above, we calculate the six interest rate shock scenarios prescribed by FINMA. The “Parallel up” scenario, assuming all positions were fair valued, was the most severe and would have resulted in a change in EVE of negative USD 4.6bn, or 7.9%, of our tier 1 capital (31 December 2021: negative USD 6.0bn, or 10.0%), which is well below the 15% threshold as per the BCBS supervisory outlier test for high levels of interest rate risk in the banking book.

The immediate effect on our tier 1 capital in the “Parallel up” scenario as of 31 December 2022 would have been only a decrease of USD 0.4bn, or 0.6% (31 December 2021: USD 1.1bn, or 1.8%), reflecting the fact that the vast majority of our banking book is accrual accounted or subject to hedge accounting. The “Parallel up” scenario would subsequently have a positive effect on NII, assuming a constant balance sheet.

UBS also applies granular internal interest rate shock scenarios to its banking book positions to monitor the banking book’s specific risk profile.

Net interest income sensitivity

The main NII sensitivity in the banking book resides in Global Wealth Management and Personal & Corporate Banking. Our investment of equity portfolio has a long duration and Group Treasury actively manages the residual IRRBB. This sensitivity is assessed using a number of scenarios assuming parallel and non-parallel shifts in yield curves, with various degrees of severity, and we have set and monitor thresholds for the NII sensitivity to immediate parallel shocks of –200 and +200 basis points under the assumption of constant balance sheet volume and structure. ▲

- Refer to the “Group performance” section of this report for more information about sensitivity to interest rate movements

Audited |

Interest rate risk – banking book

USD m	31.12.22								
	Effect on EVE ¹ – FINMA						Effect on EVE ¹ – BCBS		
	CHF	EUR	GBP	USD	Other	Total	Additional tier 1 (AT1) capital instruments		Total
Scenarios									
+1 bp	(4.0)	(0.7)	0.1	(20.4)	(0.1)	(25.0)	3.4		(21.6)
Parallel up ²	(574.6)	(117.0)	33.2	(3,944.3)	(26.3)	(4,629.1)	649.7		(3,979.4)
Parallel down ²	642.3	148.1	(45.4)	4,074.9	21.9	4,841.7	(699.8)		4,141.9
Steeper ³	(257.0)	(92.8)	(28.2)	(1,027.4)	(3.3)	(1,408.7)	(46.8)		(1,455.5)
Flattener ⁴	145.4	74.1	32.6	94.4	(2.5)	344.0	189.9		533.9
Short-term up ⁵	(83.0)	34.3	42.2	(1,519.0)	(13.8)	(1,539.2)	438.6		(1,100.6)
Short-term down ⁶	86.9	(33.1)	(42.5)	1,658.5	13.4	1,683.1	(455.5)		1,227.6

USD m	31.12.21								
	Effect on EVE ¹ – FINMA						Effect on EVE ¹ – BCBS		
	CHF	EUR	GBP	USD	Other	Total	Additional tier 1 (AT1) capital instruments		Total
Scenarios									
+1 bp	(5.1)	(1.1)	0.1	(23.5)	(0.4)	(29.9)	4.5		(25.4)
Parallel up ²	(724.1)	(196.6)	33.3	(5,068.3)	(85.8)	(6,041.4)	853.4		(5,188.0)
Parallel down ²	806.3	231.9	(32.8)	4,124.2	19.9	5,149.5	(928.4)		4,221.1
Steeper ³	(254.3)	(69.0)	(31.1)	(821.4)	(3.7)	(1,179.6)	(9.6)		(1,189.2)
Flattener ⁴	117.1	37.4	35.3	(362.3)	(34.5)	(207.0)	197.1		(10.0)
Short-term up ⁵	(158.7)	(24.1)	45.4	(2,165.9)	(59.6)	(2,362.9)	531.5		(1,831.4)
Short-term down ⁶	162.5	27.4	(43.7)	2,315.6	3.8	2,465.6	(553.3)		1,912.3

- 1 Economic value of equity.
- 2 Rates across all tenors move by ±150 bps for Swiss franc, ±200 bps for euro and US dollar, and ±250 bps for pound sterling.
- 3 Short-term rates decrease and long-term rates increase.
- 4 Short-term rates increase and long-term rates decrease.
- 5 Short-term rates increase more than long-term rates.
- 6 Short-term rates decrease more than long-term rates.

Other market risk exposures

Own credit

We are exposed to changes in UBS's own credit reflected in the valuation of financial liabilities designated at fair value when UBS's own credit risk would be considered by market participants, except for fully collateralized liabilities or other obligations for which it is established market practice to not include an own-credit component.

- **Refer to “Note 20 Fair value measurement” in the “Consolidated financial statements” section of this report for more information about own credit**

Structural foreign exchange risk

Upon consolidation, assets and liabilities held in foreign operations are translated into US dollars at the closing foreign exchange rate on the balance sheet date. Value changes (in US dollars) of non-US dollar assets or liabilities due to foreign exchange movements are recognized in OCI and therefore affect shareholders' equity and CET1 capital.

Group Treasury uses strategies to manage this foreign currency exposure, including matched funding of assets and liabilities and net investment hedging.

- **Refer to the “Capital, liquidity and funding, and balance sheet” section of this report for more information about our exposure to and management of structural foreign exchange risk**
- **Refer to “Note 10 Derivative instruments” in the “Consolidated financial statements” section of this report for more information about our hedges of net investments in foreign operations**

Equity investments and investment fund units

Audited | We make direct investments in a variety of entities and buy equity holdings in both listed and unlisted companies, with the aim of supporting our business activities and delivering strategic value to UBS. This includes investments in exchange and clearing house memberships, as well as minority investments in early-stage fintechs and technology companies via UBS Next. We may also make investments in funds that we manage in order

to fund or seed them at inception or to demonstrate that our interests align with those of investors. We also buy, and are sometimes required by agreement to buy, securities and units from funds that we have sold to clients.

The fair value of equity investments tends to be influenced by factors specific to the individual investments. Equity investments are generally intended to be held for the medium or long term and may be subject to lock-up agreements. For these reasons, we generally do not control these exposures by using market risk measures applied to trading activities. However, such equity investments are subject to a different range of controls, including preapproval of new investments by business management and Risk Control, portfolio and concentration limits, and regular monitoring and reporting to senior management. They are also included in our Group-wide statistical and stress testing metrics, which flow into our risk appetite framework.

As of 31 December 2022, we held equity investments and investment fund units totaling USD 3.0bn, of which USD 1.9bn was classified as Financial assets at fair value not held for trading and USD 1.1bn as Investments in associates. ▲

- **Refer to “Note 20 Fair value measurement” and “Note 28 Interests in subsidiaries and other entities” in the “Consolidated financial statements” section of this report for more information**
- **Refer to “Note 1 Summary of material accounting policies” in the “Consolidated financial statements” section of this report for more information about the classification of financial instruments**

Debt investments

Audited | Debt investments classified as Financial assets measured at fair value through other comprehensive income as of 31 December 2022 were measured at fair value with changes in fair value recorded through Equity, and can broadly be categorized as money market instruments and debt securities primarily held for statutory, regulatory or liquidity reasons. The risk control framework applied to debt instruments classified as Financial assets measured at fair value through other comprehensive income depends on the nature of the instruments and the purpose for which we hold them. Our exposures may be included in market risk limits or be subject to specific monitoring and interest rate sensitivity analysis. They are also included in our Group-wide statistical and stress testing metrics, which flow into our risk appetite framework.

Debt instruments classified as Financial assets measured at fair value through other comprehensive income had a fair value of USD 2.2bn as of 31 December 2022, compared with USD 8.8bn as of 31 December 2021. Effective from 1 April 2022, UBS has reclassified a portfolio of financial assets from Financial assets measured at fair value through other comprehensive income with a fair value of USD 6.9bn to Other financial assets measured at amortized cost, in line with the principles in IFRS 9, *Financial Instruments*, which require a reclassification when an entity changes its business model for managing financial assets. ▲

- **Refer to “Note 20 Fair value measurement” in the “Consolidated financial statements” section of this report for more information**
- **Refer to “Economic value of equity sensitivity” in this section for more information**
- **Refer to “Note 1 Summary of material accounting policies” in the “Consolidated financial statements” section of this report for more information about the classification of financial instruments**

Pension risk

We provide a number of pension plans for past and current employees, some classified as defined benefit pension plans under IFRS that can have a material effect on our IFRS equity and CET1 capital.

Pension risk is the risk that defined benefit plans’ funded status might decrease, negatively affecting our capital. This can result from falls in the value of a plan’s assets or in the investment returns, increases in defined benefit obligations, or combinations of the above.

Important risk factors affecting the fair value of pension plans’ assets include equity market returns, interest rates, bond yields, and real estate prices. Important risk factors affecting the present value of expected future benefit payments include high-grade bond yields, interest rates, inflation rates, and life expectancy.

Pension risk is included in our Group-wide statistical and stress testing metrics, which flow into our risk appetite framework. The potential effects are thus captured in the post-stress capital ratio calculations.

- **Refer to “Note 1 Summary of material accounting policies” and “Note 26 Post-employment benefit plans” in the “Consolidated financial statements” section of this report for more information about defined benefit plans**

UBS own share exposure

Group Treasury holds UBS Group AG shares to hedge future share delivery obligations related to employee share-based compensation awards, and also holds shares purchased under the share repurchase program. In addition, the Investment Bank holds a limited number of UBS Group AG shares, primarily in its capacity as a market-maker with regard to UBS Group AG shares and related derivatives, and to hedge certain issued structured debt instruments.

- **Refer to “UBS shares” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information**

Country risk

Country risk framework

Country risk includes all country-specific events occurring in a sovereign jurisdiction that may lead to impairment of UBS’s exposures. It may take the form of: (i) sovereign risk, which is the ability and willingness of a government to honor its financial commitments; (ii) transfer risk, which arises if a

counterparty or issuer cannot acquire foreign currencies following a moratorium by a central bank on foreign exchange transfers; or (iii) “other” country risk. “Other” country risk may manifest itself through, on the one hand, increased and multiple counterparty and issuer default risk (systemic risk) and, on the other hand, events that may affect a country’s standing, such as adverse shocks affecting political stability or institutional and / or legal frameworks. We have a well-established risk control framework to assess the risk profiles of all countries where we have exposure.

We assign a country rating to each country, which reflects our view of the country's creditworthiness and of the probability of a country risk event occurring. Country ratings are mapped to statistically derived default probabilities, described under "Probability of default" in this section. We use this internal analysis to set the credit ratings of governments and central banks, estimate the probability of a transfer event occurring, and establish rules on how aspects of country risk should be incorporated in counterparty ratings of non-sovereign entities domiciled in the respective country.

Country ratings are also used to define our risk appetite and risk exposure to foreign countries. A country risk limit (i.e., maximum aggregate exposure) applies to exposures to counterparties or issuers of securities and financial investments in the given foreign country. We may limit the extension of credit, transactions in traded products or positions in securities based on a country risk ceiling even if our exposure to a counterparty is otherwise acceptable.

For internal measurement and control of country risk, we also consider the financial effect of market disruptions arising prior to, during and after a country crisis. These may take the form of a severe deterioration in a country's debt, equity or other asset markets, or a sharp depreciation of its currency. We use stress testing to assess potential financial effects of severe country or sovereign crises. This involves the developing of plausible stress scenarios for combined stress testing and the identification of countries that may potentially be subject to a crisis event, determining potential losses and making assumptions about recovery rates depending on the types of credit transactions involved and their economic importance to the affected countries.

Our exposures to market risks are subject to regular stress tests covering major global scenarios, which are also used for combined stress testing, where we apply market shock factors to equity indices, interest rates and currency rates in all relevant countries and consider the potential liquidity of the instruments.

Country risk exposure

Country risk exposure measure

The presentation of country risk follows our internal risk view, where the basis for measuring exposures depends on the product category in which we classified the exposures. In addition to the classification of exposures into banking products and traded products, covered in "Credit risk profile of the Group" in this section, in the trading inventory we classify issuer risk on securities such as bonds and equities, as well as risk relating to underlying reference assets for derivative positions.

As we manage the trading inventory on a net basis, we net the value of long positions against short positions with the same underlying issuer. Net exposures are, however, floored at zero per issuer in the figures presented in the following tables. As a result, we do not recognize potentially offsetting benefits of certain hedges and short positions across issuers. We do not recognize any expected recovery values when reporting country exposures as exposure before hedges, except for risk-reducing effects of master netting agreements and collateral held in either cash or portfolios of diversified marketable securities, which we deduct from the positive exposure values. Within banking products and traded products, risk-reducing effects of credit protection are taken into account on a notional basis when determining the net of hedge exposures.

Country risk exposure allocation

In general, exposures are shown against the country of domicile of the contractual counterparty or the issuer of the security. For some counterparties whose economic substance in terms of assets or source of revenues is primarily located in a different country, the exposure is allocated to the risk domicile of those assets or revenues.

We apply a specific approach for banking products exposures to branches of banks that are located in a country other than the legal entity's domicile. In such cases, exposures are recorded in full against the country of domicile of the counterparty and additionally in full against the country where the branch is located.

In the case of derivatives, we show counterparty risk associated with positive replacement value (PRV) against the counterparty's country of domicile (presented within traded products). In addition, risk associated with an instantaneous fall in value of underlying reference assets to zero (assuming no recovery) is shown against the country of domicile of the issuer of the reference asset (presented within trading inventory). This approach allows us to capture both counterparty and, where applicable, issuer elements of risk arising from derivatives and applies comprehensively for all derivatives, including single-name credit default swaps (CDSs) and other credit derivatives.

CDSs are primarily bought and sold in relation to our trading businesses, and, to a much lesser degree, used to hedge credit valuation adjustments (CVAs). Holding CDSs for credit default protection does not necessarily protect the buyer of protection against losses, as contracts only pay out under certain scenarios. The effectiveness of our CDS protection as a hedge of default risk is influenced by several factors, including the contractual terms under which a given CDS was written. Generally, only the occurrence of credit events as defined by the CDS contract's terms (which may include, among other events, failure to pay, restructuring or bankruptcy) results in payments under the purchased credit protection contracts. For CDS contracts on sovereign obligations, repudiation can also be deemed as a default event. The determination as to whether a credit event has occurred is made by the relevant International Swaps and Derivatives Association (ISDA) determination committees (composed of various ISDA member firms) based on the terms of the CDS and the facts and circumstances surrounding the event.

Top 20 country risk exposures

The table below shows our 20 largest country exposures by product type, excluding our home country, as of 31 December 2022 compared with 31 December 2021.

Compared with the prior year, our net exposure to the UK decreased by USD 14.5bn, driven by central bank exposures due to treasury activities. Net exposure to Germany increased by USD 4.1bn, driven by central bank exposures due to treasury activities. Net exposures to Singapore increased by USD 1.9bn, driven by trading inventory due to treasury activities. Net exposure to China decreased by USD 1.7bn, predominantly driven by trading inventory across issuer risk and margin loans, as well as traded and banking products. Net exposure to France increased by USD 1.7bn, driven by trading inventory due to treasury activities. Net exposure to the US increased by USD 1.6bn, driven by mortgages, as well as trading inventory due to treasury activities with partial offsets related to securities financing transactions.

Based on the sovereign rating categories, as of 31 December 2022, 86% of our emerging market country exposure was rated investment grade, compared with 84% as of 31 December 2021.

Russia

Our direct country risk exposure to Russia contributed USD 98m to our total emerging market exposure of USD 18.6bn as of 31 December 2022, compared with a contribution of USD 634m as of 31 December 2021. This includes trade finance exposures in Personal & Corporate Banking, Nostro and cash accounts balances, and issuer risk on trading inventory within the Investment Bank.

We had no material direct country risk exposures to Belarus or to Ukraine as of 31 December 2022 and no material reliance on Russian, Belarusian or Ukrainian collateral.

Top 20 country risk net exposures by product type

<i>USD m</i>	Total		Banking products (loans, guarantees, loan commitments)		Traded products (counterparty risk from derivatives and securities financing) after master netting agreements and net of collateral		Trading inventory (securities and potential benefits / remaining exposure from derivatives)	
	Net of hedges ¹		Net of hedges ¹		Net of hedges		Net long per issuer	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
United States	117,994	116,388	81,875	79,647	6,620	8,371	29,499	28,371
United Kingdom	20,360	34,837	10,887	24,788	7,982	7,465	1,490	2,585
Japan	15,894	14,764	13,251	10,572	2,232	3,508	410	684
Germany	14,651	10,564	8,255	3,397	1,495	1,232	4,901	5,934
Singapore	10,863	8,993	3,038	3,110	2,493	2,557	5,332	3,326
France	7,996	6,301	2,056	1,356	1,335	1,711	4,605	3,235
Australia	4,893	6,397	1,365	2,674	1,833	1,786	1,696	1,937
Canada	4,722	3,933	274	1,199	620	1,044	3,827	1,689
China	3,625	5,344	1,347	1,823	295	830	1,983	2,691
South Korea	3,265	2,479	388	462	411	418	2,466	1,599
Luxembourg	3,230	3,453	2,717	2,438	87	58	427	958
Netherlands	2,866	3,020	1,074	1,183	669	830	1,123	1,007
Hong Kong SAR	2,278	3,388	938	1,914	455	367	885	1,107
Norway	1,676	1,215	80	25	396	206	1,200	983
United Arab Emirates	1,393	769	446	555	707	117	240	97
Thailand	1,383	1,469	344	208	23	26	1,017	1,235
Sweden	1,293	1,617	158	647	332	194	803	776
Austria	1,192	1,220	285	265	116	97	792	858
Monaco	1,017	1,022	1,001	984	16	28	0	10
India	975	1,119	847	991	88	87	40	41
Total top 20²	221,565	228,291	130,626	138,238	28,203	30,930	62,736	59,124

1 Before deduction of IFRS 9 ECL allowances and provisions.

2 Excluding Switzerland, supnationals and global funds.

Emerging markets¹ net exposure² by internal UBS country rating category

<i>USD m</i>	31.12.22	31.12.21
Investment grade	16,029	17,608
Sub-investment grade	2,594	3,261
Total	18,623	20,869

- 1 We classify countries as emerging markets based on per capita GDP, historical real GDP growth, alignment with international institutions (such as BIS, World Bank, IMF, MSCI) and other factors.
- 2 Net of credit hedges (for banking products and for traded products); net long per issuer (for trading inventory). Before deduction of IFRS 9 ECL allowances and provisions.

Sustainability and climate risk

At UBS, sustainability and climate risk is defined as the risk that UBS negatively impacts or is impacted by climate change, natural capital, human rights or other environmental, social and governance (ESG) matters.

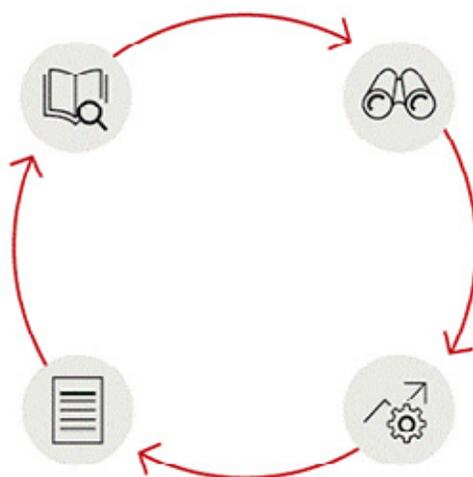
Sustainability and climate risk may manifest as credit, market, liquidity and / or non-financial risk for UBS, resulting in potential adverse financial, liability and / or reputational impacts. These risks extend to the value of investments and may also affect the value of collateral (e.g., real estate). The management of sustainability and climate risk is key, amid a global drive to meet the United Nations Sustainable Development Goals (the SDGs) and the transition to net zero, as defined by the Paris Agreement. In addition, regulators across jurisdictions increasingly seek to understand the potential financial impacts of climate change.

Our sustainability and climate risk policy framework governs client and supplier relationships, applies Group-wide to all activities, and is integrated in management practices and control principles. The sustainability and climate risk framework is embedded in our standard risk, compliance and operations processes and applied as described below.

Sustainability and climate risk framework

1 Identification and measurement

Sustainability and climate (physical and transition) risks are identified and their financial materiality is measured



2 Monitoring and risk appetite setting

Exposure to high / moderate risk sectors, emerging risks and regulations is monitored and metrics are reported internally to enable risk appetite setting

4 Reporting

Key sustainability and climate risk considerations are included in periodic risk reporting

3 Management and control

Management and control processes for products, counterparties and transactions ensure material sustainability and climate risks are identified, measured, monitored and escalated

The aforementioned processes include client onboarding, transaction due diligence, product development and investment decision processes, own operations, supply chain management, and portfolio reviews. This framework is geared toward identifying clients, transactions or suppliers potentially in breach of our standards or otherwise subject to significant controversies related to sustainability, human rights or climate change.

- **Refer to “Sustainability and climate risk policy framework” in Supplement 2 to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information**

Managing climate risk

Climate risk can arise either from changing climate conditions (physical risks) or from efforts to mitigate climate change (transition risks). The physical and transition risks from a changing climate contribute to a structural change across economies and consequently can affect banks and the financial sector as a whole through financial and non-financial impacts.

Our sustainability and climate risk (SCR) unit (part of Group Risk Control) manages material exposure to sustainability and climate risks. It also advances our firm-wide SCR initiative to build in-house capacity for the management of sustainability and climate-related risks.

Our SCR initiative follows a multi-year roadmap. It is designed to integrate sustainability and climate risk considerations into our various traditional financial and non-financial risk management frameworks, and related policies and processes. This is necessary to meet expectations regarding the management of sustainability and climate risks and to deliver on climate stress-test exercises. Our roadmap is configured to address current and emerging regulations and builds capacity through expertise and collaboration, for example, structured engagement with internal and external stakeholders (e.g., our Group Compliance, Regulatory & Governance (GCRG) function, for non-financial risks) and pertinent experts.

In 2022, the SCR initiative monitored emerging sustainability and climate risk regulation, engaged with select regulators for deep dives, and further advanced efforts toward the goal of full integration of sustainability and climate risk into our traditional risk management frameworks and stress-testing capacity. Further developments included establishing sustainable product guidelines, building new capacity to centrally structure, acquiring and deploying ESG data across the firm, and further refining governance and methodologies driving ESG reporting and disclosure.

- Refer to “Our management of climate risks” in our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information

UBS’s lending to climate-sensitive sectors

UBS approaches climate risk identification by integrating climate risk drivers, expert-based views on their transmission channels, and climate risk methodologies (e.g., risk scores and heatmaps). This enables a materiality-driven approach to climate risk management.

- Refer to “Climate related materiality assessment” in our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information

The current inventory of UBS’s exposure to climate-sensitive activities (transition and physical risk) at the sector level is summarized in the table below. Exposures may appear either under one or more of the risk types, as the methodologies are distinct in their approach and application and should not be added up as one total exposure figure. Climate risk analysis is a novel area of research, and, as the methodologies, tools, and data availability improve, we will further develop our risk identification and measurement approaches.

Risk exposures by sector^{1,2}

Sector	Exposure		Transition risk				Physical risk		
	2020–2022 trend	2022 (USD bn)	2022 climate-sensitive exposure ³	2022 risk-rating category ³	2020–2022 trend in risk profile ⁴	In scope of net-zero target (%) ⁵	2022 climate-sensitive exposure ³	2022 risk-rating category ³	2020–2022 trend in risk profile ⁴
Agriculture									
Agriculture, fishing and forestry	↓	0.3	0.0	Moderately low	↑		0.3	Moderate	↓
Food and beverage	↓	3.2	1.4	Moderate	↓		2.3	Moderate	↓
Financial services									
Financial services	↑	46.9	0.0	Low	↓		7.1	Moderately low	↓
Industrials									
Cement or concrete manufacture	↑	0.5	0.5	Moderately high	↓	98	0.5	Moderate	↓
Chemicals manufacture	↓	1.0	1.0	Moderately high	↓		1.0	Moderate	↑
Electronics manufacture	↓	1.8	0.0	Moderately low	↓		0.1	Moderately low	↑
Goods and apparel manufacture	↑	2.1	1.0	Moderate	↓		0.9	Moderately low	↓
Machinery manufacturing	↓	2.9	2.6	Moderate	↓		0.1	Moderately low	↓
Pharmaceuticals manufacture	↑	1.9	1.9	Moderately high	↓		0.2	Moderately low	↓
Plastics and petrochemicals manufacture	↓	0.9	0.9	Moderate	↓		0.8	Moderate	↓
Metals and mining									
Conglomerates (incl. trading)	↓	2.4	2.4	Moderate	↓		0.4	Moderately low	↓
Mining and quarrying	↓	0.4	0.0	Moderately low	↓		0.4	Moderately high	↓
Production	↑	0.4	0.4	Moderate	↓		0.1	Moderate	↑
Fossil fuels									
Downstream refining, distribution	↑	0.3	0.3	Moderate	↑		0.3	Moderate	↓
Integrated	↓	0.4	0.4	Moderately high	↓	100	0.4	Moderate	↓
Midstream transport, storage	↑	0.0	0.0	Moderate	↓		0.0	Moderate	↓
Trading	↑	5.2	5.2	Moderate	↓		5.2	Moderately high	↓
Upstream extraction	↓	0.1	0.1	Moderately high	↓	95	0.1	Moderate	↓
Real estate									

Real estate development and management	↓	5.6	1.8	Moderately low	↓	0.8	Moderately low	↓	
Residential ²	↑	158.9	0.0	Low	→	99	0.0	Low	→
Commercial ²	↑	47.1	1.4	Moderately low	↓	97	1.7	Low	↑
Services and technology									
Services and technology	↓	19.6	0.0	Low	↓	3.0	Moderately low	↓	

Risk exposures by sector^{1,2} (continued)

Sector	Exposure		Transition risk				Physical risk		
	2020–2022 trend	2022 (USD bn)	2022 climate-sensitive exposure ³	2022 risk-rating category ³	2020–2022 trend in risk profile ⁴	In scope of net-zero target (%) ⁵	2022 climate-sensitive exposure ³	2022 risk-rating category ³	2020–2022 trend in risk profile ⁴
Transportation									
Air transport	↓	1.8	1.8	Moderate	↓		1.1	Moderate	↓
Automotive	↓	0.4	0.1	Moderately low	↓		0.0	Moderately low	↓
Parts and equipment supply	↓	0.5	0.5	Moderate	↓		0.1	Moderately low	↓
Rail freight	↓	0.7	0.0	Low	↓		0.2	Moderately low	↓
Road freight	↓	0.5	0.5	Moderate	↓		0.2	Moderately low	↓
Transit	↓	0.2	0.0	Moderately low	↓		0.1	Moderately low	↓
Water transport	↓	0.4	0.0	Moderately low	↓		0.4	Moderate	↓
Utilities									
Other	↓	0.2	0.1	Moderately low	↑		0.1	Moderate	↓
Secondary energy production	↑	2.0	0.5	Moderately low	↓	91	2.0	Moderate	↓
Secondary energy trading	↓	0.0	0.0	Moderately low	↓		0.0	Moderate	↓
Private lending									
Lombard ^{2,6}	↓	137.3	0.0	Low	↓		0.0	Moderately low	↓
Private lending, credit cards, other ²	↓	4.1	0.0	Not Classified	→		0.0	Not Classified	→
Total	↓	450.0	24.9	Moderately low	↓		30.0	Moderately low	↓
<i>of which: sensitive exposure (%)</i>			5.5				6.7		

- 1 Consists of total loans and advances to customers and guarantees, as well as irrevocable loan commitments (within the scope of expected credit loss), and is based on consolidated and standalone IFRS numbers, in USD bn. Metrics and trends are calculated and restated based on 2022 methodology, across three years of reporting, 2020–2022.
- 2 Methodologies for assessing climate-related risks are emerging and may change over time. As the methodologies, tools and data availability improve, we will further develop our risk identification and measurement approaches, including further and updated geospatial analysis of properties securing financing with UBS (real estate) and better understanding how private lending (e.g., Lombard) activities may result in direct financial impacts for UBS. For physical climate risks, UBS has identified select properties in its real estate portfolio that are vulnerable to acute climate hazards. However, real estate rating is assigned based on the riskiness of loan counterparties or qualitative estimates leveraging internal studies.
- 3 Climate-related risks are scored between 0 and 1, based upon sustainability and climate risk transmission channels, as outlined in Appendix 3 to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors. Risk ratings represent a range of scores across five risk-rating categories: low, moderately low, moderate, moderately high, and high. The climate-sensitive exposure metrics are determined based upon the top three out of five rated categories: high to moderate. Legend on risk codes: not classified means the respective category of risk rating is not classified and its range of risk profiles scores 0%; low means the category of risk rating is low and its range of risk profiles scores ≤19%; moderately low means the category of risk rating is moderately low and its range of risk profiles scores >19% and ≤39%; moderate means the category of risk rating is moderate and its range of risk profiles scores >39% and ≤59%; moderately high means the category of risk rating is moderately high and its range of risk profiles scores >59% and ≤79%; high means the category of risk rating is high and its range of risk profiles scores >79% and ≤100%.
- 4 A material change in risk profile (discrete risk score, weighted average per sub-sector) is considered a >5% shift up, or down.
- 5 Calculated as a % of total exposure to the sub-sector, overall net-zero targets cover 45.6% of UBS lending, as defined in footnote 1.
- 6 Lombard lending rating is assigned based on the average riskiness of loans.

Transition risk heatmap

Transition risk covers the adjustment to an environmentally sustainable economy, including changes in public policies, disruptive technological developments and shifts in consumer and investor preferences. Our transition risk heatmap methodology is based on a risk-segmentation process, dividing and rating economic sectors and industry sub-segments that share similar risk vulnerability characteristics.

These are then scored and rated according to their vulnerability to (i) climate policy, (ii) low-carbon technology risks and (iii) revenue or demand shifts under an immediate and ambitious approach, to meeting the well-below-2°C Paris goal. We are able to use these risk ratings to support identification of potential climate-sensitive concentrations. The ratings in the heatmap are bands of scores (from 0 to 1), and reflect the levels of risk that would likely occur under an ambitious transition (in a short-term time horizon).

Our current transition risk heatmap shows that our exposure to activities rated as having high, moderately high or moderate vulnerability to climate transition risks is relatively low (as a percentage, in 2022 compared with 2021). Most year-on-year fluctuations (2021 to 2022) were in the energy sector, specifically in the oil and gas midstream and downstream segments, and were caused by increasing energy prices, as the Russia–Ukraine war tightened the global energy supply. Despite these fluctuations, we have continued to reduce our exposure to climate-sensitive sectors.

- **Refer to “Managing sustainability and climate risks” in our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information**

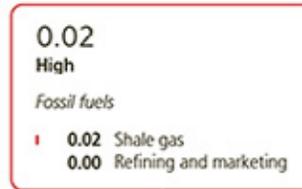
Climate risk heatmap (transition risk)^{1,2}

In USD bn

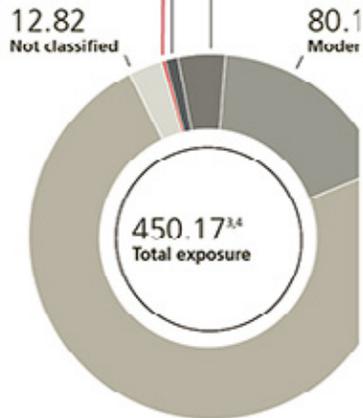
5.08

Moderately high

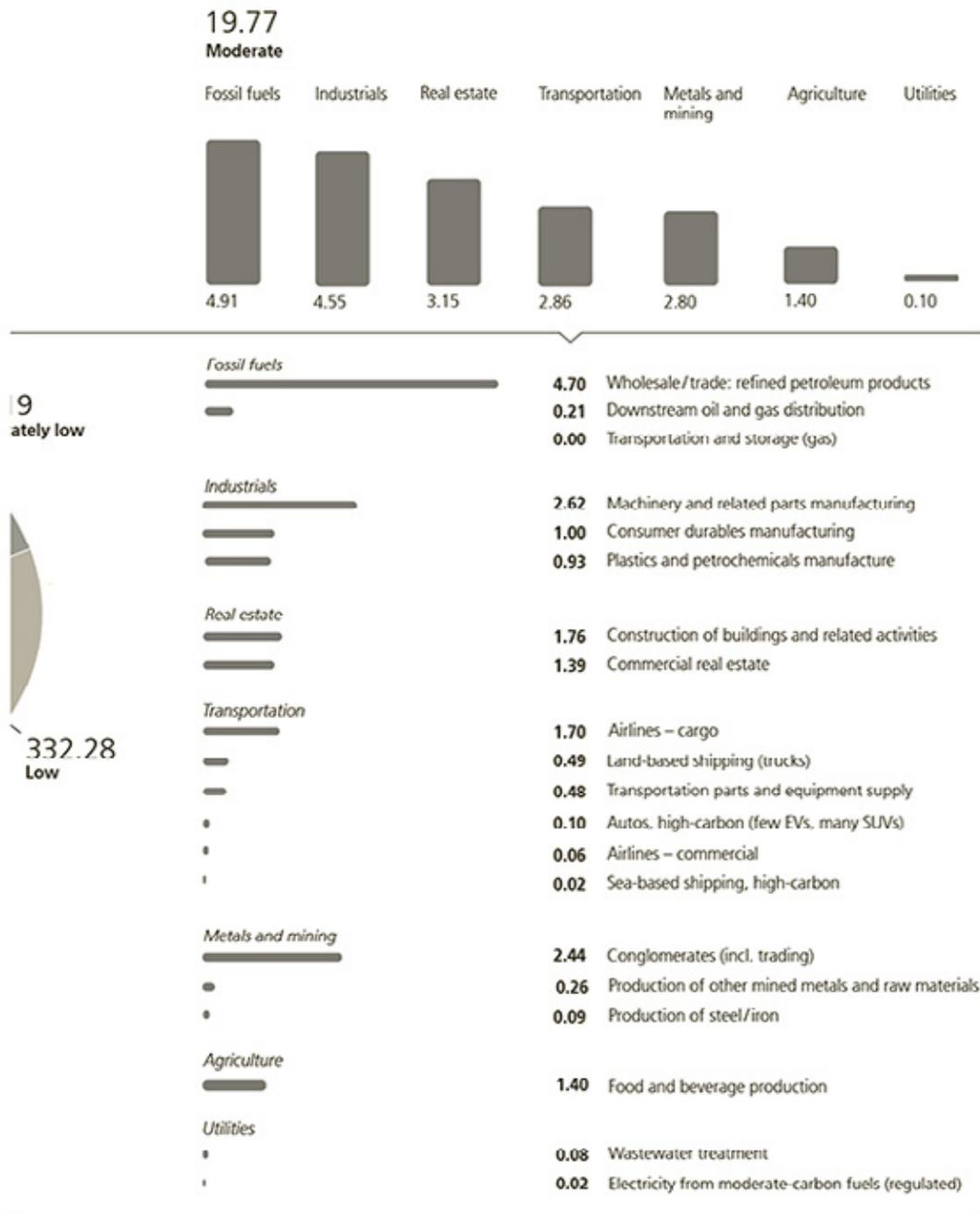
Industrials Fossil fuels Utilities Real estate Agriculture



Sector	Sub-sector	Exposure (USD bn)
Industrials	Pharmaceuticals	1.90
	Chemicals	1.02
	Cement or concrete manufacture	0.51
Fossil fuels	Wholesale / trade: crude oil and natural gas	0.54
	Integrated oil and gas	0.40
	Conventional oil (on-/offshore)	0.11
	Gas processing (incl. LNG)	0.08
Utilities	Electricity from high-carbon fuels (regulated)	0.51
Real estate	Commercial real estate	0.02
Agriculture	Livestock – beef extensive grazing	0.01



¹ Consists of total loans and advances to customers and guarantees, as well as irrevocable loan commitments (within the scope of expected credit loss), and are
² Climate-related risks are scored between 0 and 1, based upon sustainability and climate risk transmission channels, as outlined in the Appendix 3 to our Sustai
low, moderately low, moderate, moderately high, and high. Climate-sensitive exposure metric is determined based upon the top 3 out of 5 rated categories: h
the sensitive sector.
³ Total exposure calculation is subject to rounding to two decimal places, hence potential deviation from actual.
⁴ Methodologies for assessing climate-related risks are emerging and may change over time. As the methodologies, tools, and data availability improve, we will
estate) and better understanding how private lending (e.g., Lombard) activities may result in direct financial impacts to UBS. Not classified represents portion o
riskiness of loans.



based on consolidated and standalone IFRS numbers.
 nability Report 2022, available under "Annual reporting" at ubs.com/investors. Risk ratings represent a range of scores across 5 risk rating categories: high to moderate. Sectors, such as fossil fuels, are further segmented to categories reflecting a range of risk vulnerabilities from high to moderate, within

further develop our risk identification and measurement approaches, including updated geospatial analysis of properties securing financing with UBS (real f UBS business activities where methodologies and data are not yet able to provide a rating. Lombard lending rating is assigned based on the average

Physical risk heatmap

Physical risk arises from the impact of weather events and long-term or widespread environmental changes. The physical risk heatmap methodology groups corporate counterparties based on exposure to key physical risk factors, by rating sectoral (sectoral average risk distribution), geographic (vulnerability and adaptive capacity) and value chain (sectoral average risk distribution) vulnerabilities in a climate-change trajectory in which no additional policy action is taken, and scored for the potential for financial loss in the short-term time horizon. Ratings from low to high are based on a weighted-average score (from 0 to 1), given by double-weighting sector and geography and single-weighting value chain.

- **Refer to “Managing sustainability and climate risks” in our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors**

We will continue to enhance our methodology in 2023, with relevant subject matter experts (e.g., country risk experts) and enhanced vendor data sources (e.g., systematic integration of geospatial tools and data). Our current physical risk heatmap shows that we have relatively low exposure to activities rated as having high, moderately high or moderate vulnerability to physical climate risks. Key concentrations of exposure include high volumes of real estate lending in Switzerland. Most of our lending is to the financial sector, which by its nature has a lower physical climate risk. Key exceptions are lending to property insurance companies or lending in higher-risk regions, such as South Asia.

The chart below shows the location-specific risk distribution compared with the spread of physical risk across sectoral risk ratings versus country (risk domicile, see above) risk ratings. The size of the circle indicates the relative lending exposure.

Scenario analysis and stress test exercises

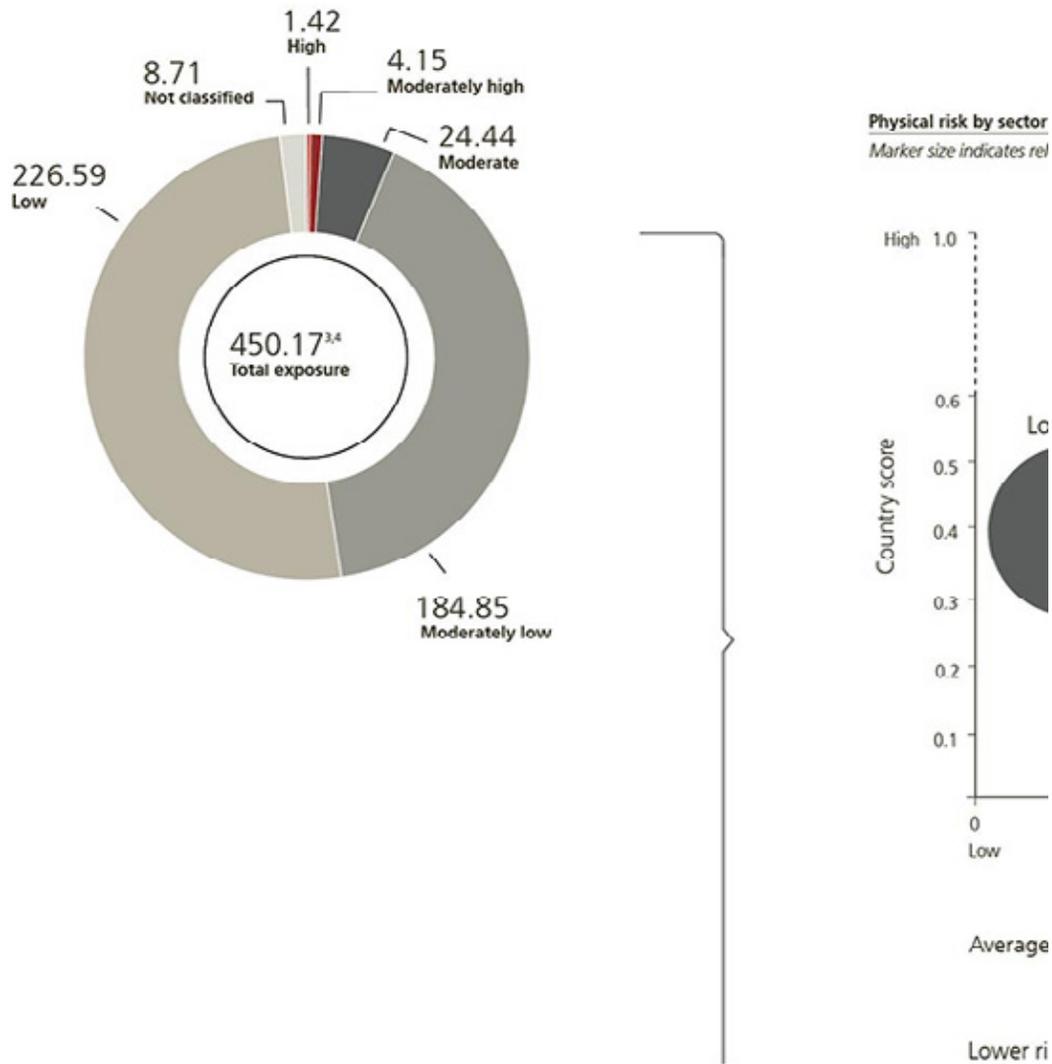
We use scenario-based approaches to assess our exposure to physical and transition risks stemming from climate change. We have introduced a series of assessments performed through industry collaborations in order to harmonize approaches for addressing methodological and data gaps. We have performed top-down balance sheet stress testing (across the Group), as well as targeted, bottom-up analysis of specific sector exposures covering short-, medium-, and long-term time horizons.

UBS first participated in regulatory scenario analysis and stress test exercises in 2021, namely the Bank of England (BoE) 2021 Climate Biennial Exploratory Scenario (CBES): Financial risks from climate change; and the Climate Risk Stress Test (CST) of the European Central Bank (the ECB). In addition, in 2021 UBS participated in climate risk assessment conducted in Switzerland jointly by FINMA and the Swiss National Bank. Throughout 2022, we engaged with a range of regulatory surveys and other requests for information from supervisors around the globe.

- **Refer to “Managing sustainability and climate risks” in our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors**

Climate risk heatmap (physical risk)^{1,2}

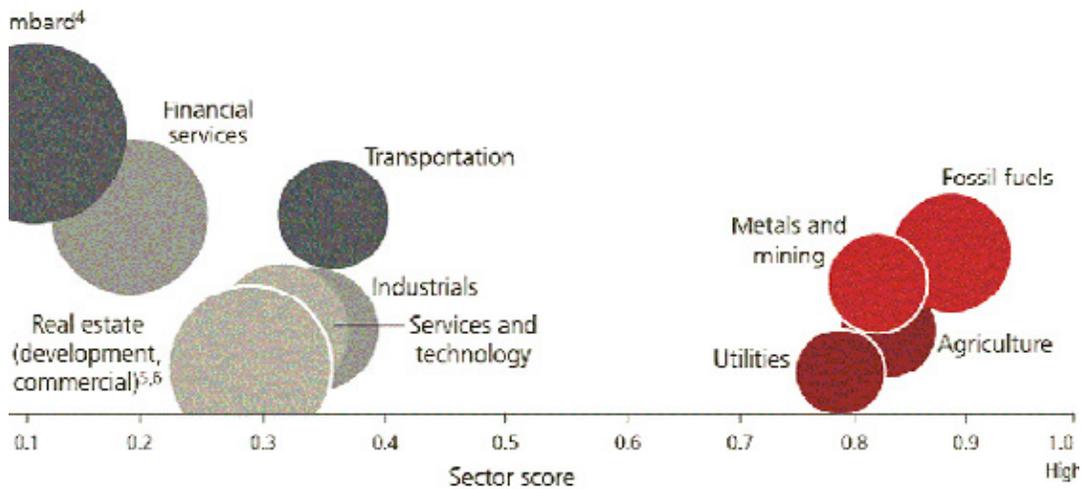
In USD bn



1 Consists of total loans and advances to customers and guarantees, as well as irrevocable loan commitments (within the scope of expected credit loss), and are
 2 Climate-related risks are scored between 0 and 1, based upon sustainability and climate risk transmission channels, as outlined in the Appendix 3 to our Sustain
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 the sensitive sector.
 3 Total exposure calculation is subject to rounding to two decimal places, hence potential deviation from actual.
 4 Methodologies for assessing climate-related risks are emerging and may change over time. As the methodologies, tools, and data availability improve, we will fi
 estate) and better understanding how private lending (e.g., Lombard) activities may result in direct financial impacts to UBS. Not classified represents portion of
 riskiness of loans.
 5 Residential real estate is not given a sector score, therefore not included in this chart, however, is rated "low" based on periodic geospatial analysis.
 6 UBS has identified select properties in its portfolio that are vulnerable to acute climate hazards, however portfolio-level risks are inherently low, given the integr

and geographic (country) scores

active exposure magnitude



country and sector score



⁴ based on consolidated and standalone FRS numbers.

⁵ Sustainability Report 2022, available under "Annual reporting" at ubs.com/investors. Risk ratings represent a range of scores across 5 risk rating categories: high to moderate. Sectors, such as fossil fuels, are further segmented to categories reflecting a range of risk vulnerabilities from high to moderate, within

⁶ We will develop our risk identification and measurement approaches, including updated geospatial analysis of properties securing financing with UBS (real estate), to include UBS business activities where methodologies and data are not yet able to provide a rating. Lombard lending rating is assigned based on the average

incorporation of such information into UBS's loan underwriting processes.

Non-financial risk

Non-financial risk is the risk of undue monetary loss and / or non-monetary adverse consequences resulting from inadequate or failed internal processes, people and / or systems, failure to comply with laws and regulations and internal policies and procedures, or external events (deliberate, accidental or natural) that have an impact, monetary or non-monetary, on UBS, its clients or its markets.

Key developments

We have identified eight non-financial risk themes as being currently key to us. These are:

- digital transformation and change delivery;
- data life cycle;
- operational resilience and cyber threat;
- investor protection and market interaction;
- strategic growth initiatives and partnerships;
- the evolving nature of AML / KYC and sanctions;
- virtual assets; and
- environmental, social and governance (ESG) risks.

We are continuing our efforts regarding innovation and digitalization to create value for our clients. As part of the resulting transformation, we focus on timely and properly controlled changes to frameworks, including consideration of new or revised controls, working practices and oversight, with the aim of mitigating any new risks introduced.

The increasing interest in data-driven advisory processes, and use of artificial intelligence and machine learning, is opening up new questions related to data ethics, data privacy and records management. In addition, given the interconnectivity between systems and data flows, it is important that data is properly managed and is complete, timely and correct. We are actively enhancing the required frameworks, which are designed to ensure proper controls are in place to meet regulatory and customer expectations.

Given rising geopolitical tensions, coupled with ongoing environmental and health threats, we believe that it is essential that UBS remains operationally resilient. We have developed a global operational resilience framework and are implementing it across all business divisions and jurisdictions. The framework will mature over time and is designed to drive enhancements in operational resilience. In addition, in regions with local COVID-19 restrictions, our response continues to rely upon our business continuity management and operational risk processes, with no material impact on our services.

The inherent risk of cyberattacks continues to be elevated, as the geopolitical situation increases the likelihood of external state-driven cyber activity, and attacks are becoming increasingly sophisticated, which may result in business disruption or the corruption or loss of data. It is therefore key that our cyber-defense capabilities continue to be strengthened and evolve in line with developments in the threat landscape. Our IT security controls, staff training and communications, and cyber-threat monitoring provided adequate cyber defenses to prevent our operations being materially impacted by cybersecurity incidents in 2022. We continue to enhance our cyber capabilities to stay abreast of evolving threats. Cyberattacks may also occur on the systems that are operated by external service providers. If a successful attack occurs at a service provider, as we have recently experienced, we may be dependent on the service provider's ability to detect, investigate and assess the attack, and successfully restore the relevant systems and data.

As we continue to move to a post-pandemic "new normal," changes to the work environment (including permanent hybrid working and the introduction of agile ways of working) have introduced new challenges for supervision and monitoring. Hybrid working can lead to increased conduct risk, inherent risk of fraudulent activities, potential increases in the number of suspicious transactions, and increased information security risks. We have implemented additional monitoring and supervision to mitigate these risks.

Competition to find new investment opportunities across the financial services sector, both for firms and for customers, is increasing. Thus, suitability risk, product selection, cross-divisional service offerings, quality of advice and price transparency also remain areas of heightened focus for UBS and for the industry as a whole.

With regard to consumer protection, sustainable investing, market volatility and major legislative change programs, such as the Swiss Financial Services Act (FIDLEG) in Switzerland, Regulation Best Interest (Reg BI) in the US and the Markets in Financial Instruments Directive II (MiFID II) in the EU, all significantly affect the industry and require adjustments to control processes on a geographically aligned basis.

Achieving fair outcomes for our clients, upholding market integrity and cultivating the highest standards of employee conduct are of critical importance to us. We maintain a conduct risk framework across our activities, which is designed to align our standards and conduct with these objectives and to retain momentum on fostering a strong culture.

Cross-border risk remains an area of regulatory attention for global financial institutions, with a strong focus on fiscal transparency, as well as market access, particularly third-country market access into the European Economic Area. There is also an ongoing high level of attention regarding the risk that tax authorities may, on the basis of new interpretations of existing law, seek to impose taxation based on the existence of a permanent establishment. We maintain a series of controls designed to address these risks. Remote communication and the use of digital solutions also require that these evolving client channels remain compliant.

In September 2022, the Securities and Exchange Commission (the SEC) and the Commodity Futures Trading Commission (the CFTC) issued settlement orders with UBS AG relating to communications recordkeeping requirements in our US broker-dealers and our registered swap dealer. In response, we have initiated a program to remediate the identified shortcomings.

Financial crime, including money laundering, terrorist financing, sanctions violations, fraud, bribery and corruption, continues to present a major risk, as technological innovation and geopolitical developments increase the complexity of doing business and heightened regulatory attention continues. An effective financial crime prevention program therefore remains essential for UBS. Money laundering and financial fraud techniques are becoming increasingly sophisticated, and geopolitical volatility makes the sanctions landscape more complex, as new or novel sanctions may be imposed that require complex implementation in a short time frame, such as the extensive and continuously evolving sanctions arising from the Russia–Ukraine war. As a regulated financial institution, UBS is subject to the requirements of, and to supervision by, the Swiss Financial Market Supervisory Authority (FINMA), the US Federal Reserve Board, the US Office of the Comptroller of the Currency (the OCC), the US Federal Deposit Insurance Corporation, the US SEC, the UK Prudential Regulation Authority, the UK Financial Conduct Authority, the German Federal Financial Supervisory Authority (BaFIN) and the European Central Bank (the ECB), as applicable. As such, we maintain policies and procedures that are reasonably designed to comply with the sanctions, anti-bribery and anti-corruption regimes in the jurisdictions in which we operate, including the Swiss, EU, US and UK regimes.

In the US, the OCC issued a Cease and Desist Order against UBS in May 2018 relating to our US branch anti-money-laundering (AML) and know-your-client (KYC) programs. In response, we initiated an extensive program for the purpose of ensuring sustainable remediation of US-relevant Bank Secrecy Act / AML issues across all our US legal entities. We introduced significant improvements to the framework between 2019 and 2022. We are continuing to implement these enhancements, as well as evolving them to respond to any new and emerging risks.

We continue to focus on strategic enhancements to our global AML / KYC and sanctions programs, including the exploration of new technologies and sophisticated monitoring and analytical capabilities, as well as the application of risk appetite statements for markets.

In line with our firm-wide purpose, ESG topics and the risks related to them are high on our agenda, particularly considering the increasing regulatory focus on ESG disclosure, climate-related stress testing, net-zero commitments, greenwashing risk and the strategic commercial pushing of sustainability topics, as well as the potential for new and diverse regulations being deployed across jurisdictions. Strong regulatory development tracking and impact assessment are key, as is integrating ESG factors into the financial and non-financial risk control frameworks as required.

- **Refer to “Sustainability and climate risk” in this section for more information about risks related to sustainability and climate risk**

New risks continue to emerge. For example, client demand for distributed ledger technology, blockchain-based assets and virtual currencies creates new risks, to which we currently have limited exposure and for which relevant control frameworks are being implemented.

Non-financial risk framework

Non-financial risk is an inherent part of our business. Losses can result from people and systems, inadequate or failed internal processes, or external causes. We follow a Group-wide non-financial risk framework that establishes requirements for identifying, managing, assessing and mitigating operational, compliance and conduct risks to achieve an agreed balance between risk and return. It is built on the following pillars:

- classifying inherent risks through 18 non-financial risk taxonomies, which define the universe of material non-financial risks that can arise as a consequence of our business activities and external factors;
- assessing the design and operating effectiveness of controls through our control assessment process;
- defining the non-financial risk appetite (including a financial risk appetite statement at the Group, UBS AG and business division levels for non-financial risk events) through quantitative metrics and thresholds and qualitative measures, and assessing risk exposure against appetite;
- assessing inherent and residual risk through risk assessment processes and determining whether additional remediation plans are required to address identified deficiencies; and
- proactively and sustainably remediating identified control deficiencies.

Divisional Presidents are accountable for the effectiveness of non-financial risk management and for the robustness of the front-to-back control environment within their business divisions, and legal-entity-responsible executives are in charge of non-financial risk management within their legal entities. Group function heads are accountable for supporting the divisional Presidents and legal-entity-responsible executives of our legal entities in the discharge of this responsibility, by confirming completeness and effectiveness of the control environment and non-financial risk management within their Group functions. Collectively, divisional Presidents, central Group function heads and legal-entity-responsible executives are in charge of implementing the non-financial risk framework.

Compliance & Operational Risk Control (C&ORC) is responsible for providing an independent and objective view of the adequacy of non-financial risk management across the Group, and ensuring that compliance risk, financial crime risk and operational risk are understood, owned and managed in accordance with our risk appetite. C&ORC business- or function-aligned teams sit within the Group Compliance, Regulatory & Governance (GCRG) function, reporting to the Group Chief Compliance and Governance Officer, who is a member of the Group Executive Board. The non-financial risk framework forms the common basis for managing and assessing compliance risk, financial crime risk and operational risk, and there are additional C&ORC activities intended to ensure we are able to demonstrate compliance with applicable laws, rules and regulations.

In 2022, we continued to review and enhance the non-financial risk framework, including delivery of the Group Functions Risk Control Self-Assessment for the first time and the rolling-out of the simplified risk taxonomy, which also facilitated the development of the firm-wide non-financial risk appetite statement and assessments across all 18 taxonomies. All functions within UBS are required to assess the design and operating effectiveness of their internal controls periodically. The output of these reviews supports the assessment and testing scope of internal controls over financial reporting as required by the Sarbanes–Oxley Act, Section 404 (SOX 404).

Key control deficiencies identified during the internal control and risk assessment processes must be reported in the non-financial risk inventory, and sustainable remediation must be defined and executed. These control deficiencies are assigned to owners at senior management level and the remediation progress is reflected in the respective managers' annual performance measurement and objectives. To assist with prioritizing the most material control deficiencies and measuring aggregated risk exposure, irrespective of origin, a common rating methodology is applied across all three lines of defense, as well as by external audit.

Advanced measurement approach model

The non-financial risk framework outlined above underpins the calculation of regulatory capital for operational risk, which enables us to quantify operational risk and define effective risk-mitigating management incentives as part of the related operational risk capital allocation approach to the business divisions.

We measure Group operational risk exposure and calculate operational risk regulatory capital using the advanced measurement approach (AMA) in accordance with FINMA and international requirements.

An entity-specific AMA model has been applied for UBS Switzerland AG, while for other regulated entities the basic indicators or standardized approaches are adopted for regulatory capital in agreement with local regulators. Also, the methodology of the Group AMA is leveraged for entity-specific Internal Capital Adequacy Assessment Processes.

Currently, the model includes 16 AMA units of measure (UoM), which are aligned with our non-financial risk taxonomy as closely as possible. Full transition to the non-financial risk taxonomy is not yet implemented, but is planned by the end of December 2023 with expected FINMA approval for the Group's AMA model. Frequency and severity distributions are calibrated for each of the model's UoM. The modeled distribution functions for both frequency and severity are used to generate the annual loss distribution. The resulting 99.9% quantile of the overall annual operational risk loss distribution across all UoM determines the required regulatory capital. Currently, we do not reflect mitigation through insurance or any other risk transfer mechanism in our AMA model.

AMA model calibration and review

A key assumption when calibrating data-driven frequency and severity distributions is that historical losses form a reasonable proxy for future events. In line with regulatory expectations, the AMA methodology utilizes both historical internal losses and external losses suffered by the broader industry for model calibration purposes.

Initial model outputs driven by the loss history are reviewed and adjusted to reflect fast-changing external developments, such as new regulations, geopolitical change, volatile market and economic conditions, and internal factors (e.g., changes in business strategy and control framework enhancements). The resulting baseline data-driven frequency and severity distributions are reviewed by subject matter experts and where necessary adjusted based on a review of qualitative information about the business environment and internal control factors, as well as expert judgment, with the aim of forecasting losses.

Our model is reviewed regularly to maintain risk sensitivity and recalibrated at least annually. Any changes to regulatory capital as a result of a recalibration or methodology changes are presented to FINMA for approval prior to use for disclosure purposes.

AMA model governance

The Group- and entity-specific AMA models are subject to an independent validation performed by Model Risk Management & Control in line with the Group's model risk management framework.

Expected transition of capital regime under Basel III capital regulations

The AMA is expected to be replaced by the standardized measurement approach for regulatory capital determination purposes in line with the relevant Basel Committee for Banking Supervision Basel III capital regulations. UBS is interacting closely with the relevant Swiss authorities to discuss the implementation details and related implementation timeline.

- **Refer to “Capital planning and activities” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information about the development of risk-weighted assets**
- **Refer to “Risk measurement” in this section for more information about our approach to model confirmation procedures**
- **Refer to the “Risk factors” section of this report for more information**

Capital, liquidity and funding, and balance sheet

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Capital management

Capital management objectives, planning and activities

Capital management objectives

Audited | An adequate level of common equity tier 1 (CET1) capital and total loss-absorbing capacity (TLAC) meeting both internal assessment and regulatory requirements is a prerequisite for conducting our business activities. ▲

We are therefore committed to maintaining a strong CET1 capital and TLAC position at all times, in order to meet regulatory capital requirements and our target capital ratios, and to support the growth of our businesses.

As of 31 December 2022, our CET1 capital ratio was 14.2% and our CET1 leverage ratio 4.42%, each above our capital guidance and also above the requirements for Swiss systemically relevant banks (SRBs) and the Basel Committee on Banking Supervision (the BCBS) requirements. We believe that our capital strength, consistent with our capital guidance, is a source of confidence for our stakeholders, contributes to our sound credit ratings and is one of the foundations of our success.

The BCBS announced the finalization of the Basel III framework in December 2017, and published the final rules on the minimum capital requirements for market risk from the Fundamental Review of the Trading Book (the FRTB) in January 2019. In response to COVID-19, the Group of Central Bank Governors and Heads of Supervision, which acts as the BCBS's oversight body, endorsed the deferral of the implementation date by one year, to 1 January 2023. The accompanying transitional arrangements for the output floor were also extended by one year, to 1 January 2028. We expect the Swiss regulations to come into force in 2025 and we continue to make progress on our infrastructure design and operational governance ahead of the upcoming adoption of these rules. We currently estimate that the revised Basel III framework would lead to a further net increase in risk-weighted assets (RWA) of around USD 12bn, before taking into account mitigating actions and not reflecting the impact of the output floor, which is phased in over time. Our estimate includes the finalization of the Basel III framework, as well as the FRTB, based on our current understanding of the relevant standards. It may change as a result of new or updated regulatory interpretations, appropriate conservatism in model calibration, the implementation of Basel III standards into national law, changes in business growth, market conditions and other factors. The final degree of alignment between the Swiss implementation and those in other jurisdictions, particularly those regarding the treatment of historical operational losses, remains uncertain at this stage.

- **Refer to the “Our strategy” and “Targets, aspirations and capital guidance” sections of this report for more information about our capital and resource guidelines**
- **Refer to “We may be unable to maintain our capital strength” in the “Risk factors” section of this report for more information about capital ratio-related risks**

Capital planning and activities

Audited | We manage our balance sheet, RWA, leverage ratio denominator (LRD) and TLAC ratio levels based on our regulatory requirements, within our internal limits and targets, and our externally provided guidance. Our strategic focus is on achieving an optimal attribution and use of financial resources between our business divisions and Group Functions, as well as between our legal entities, while remaining within the limits defined for the Group and allocated to the business divisions by the Board of Directors (the BoD). These resource allocations, in turn, affect business plans and earnings projections, which are reflected in our capital plans.

The annual strategic planning process includes a capital-planning component that is key in defining our capital targets. It is based on an attribution of Group RWA and LRD internal limits to the business divisions.

Limits and targets are established at the Group and business division levels, and are approved by the BoD at least annually. In the target-setting process, we take into account the current and potential future TLAC requirements, our aggregate risk exposure in terms of capital-at-risk, the assessment by rating agencies, comparisons with peers and the effect of expected accounting policy changes. ▲

Monitoring is based on these internal limits and targets and provides indications if any changes are required. Any breach of limits in place triggers a series of required remediating actions.

Group Treasury plans for and monitors consolidated TLAC information on an ongoing basis, reflecting business and legal entity requirements, as well as regulatory developments in capital regulations. In addition, capital planning and monitoring are performed at the legal entity level for our significant subsidiaries and sub-groups that are subject to prudential supervision and must meet capital and other supervisory requirements.

- **Refer to “Capital and capital ratios of our significant regulated subsidiaries” in this section for more information**
- **Refer to “Statistical measures” in the “Risk management and control” section of this report for more information about capital-at-risk**

Swiss SRB total loss-absorbing capacity framework

The disclosures in this section are provided for UBS Group AG on a consolidated basis and focus on key developments during the reporting period and information in accordance with the Basel III framework, as applicable to Swiss SRBs.

Additional regulatory disclosures for UBS Group AG on a consolidated basis are provided in our 31 December 2022 Pillar 3 Report. The Pillar 3 Report further includes information relating to our significant regulated subsidiaries and subgroups (UBS AG standalone, UBS Switzerland AG standalone, UBS Europe SE consolidated and UBS Americas Holding LLC consolidated) as of 31 December 2022 and is available under “Pillar 3 disclosures” at ubs.com/investors.

Capital and other regulatory information for UBS AG consolidated in accordance with the Basel III framework, as applicable to Swiss SRBs, is provided in the combined UBS Group AG and UBS AG Annual Report 2022, available under “Annual reporting” at ubs.com/investors.

Regulatory framework

The Basel III framework came into effect in Switzerland on 1 January 2013 and is embedded in the Swiss Capital Adequacy Ordinance (the CAO). The CAO also includes the too-big-to-fail provisions applicable to Swiss SRBs, which have been fully phased-in since 1 January 2020.

Under the Swiss SRB framework, going and gone concern requirements represent the Group’s TLAC requirement. TLAC encompasses regulatory capital, such as CET1, loss-absorbing additional tier 1 (AT1) and tier 2 capital instruments, and liabilities that can be written down or converted into equity in case of resolution or for the purpose of restructuring measures.

Capital and other instruments contributing to our total loss-absorbing capacity

In addition to CET1 capital, the following instruments contribute to our loss-absorbing capacity:

- loss-absorbing AT1 capital instruments (high- and low-trigger);
- loss-absorbing tier 2 capital instruments (high- and low-trigger);
- non-Basel III-compliant tier 2 capital instruments; and
- TLAC-eligible senior unsecured debt instruments.

Under the Swiss SRB rules, going concern capital includes CET1 and high-trigger loss-absorbing AT1 capital instruments. Our existing outstanding low-trigger loss-absorbing AT1 capital instruments are available to meet the going concern capital requirements until their first call date. As of their first call date, these instruments are eligible to meet the gone concern requirements.

Outstanding high- and low-trigger loss-absorbing tier 2 capital instruments, non-Basel III-compliant tier 2 capital instruments and TLAC-eligible senior unsecured debt instruments are eligible to meet gone concern requirements until one year before maturity. A maximum of 25% of the gone concern requirements can be met with instruments that have a remaining maturity of between one and two years (i.e., are in the last year of eligibility). However, once at least 75% of the gone concern requirement has been met with instruments that have a remaining maturity of greater than two years, all instruments that have a remaining maturity of between one and two years remain eligible to be included in the total gone concern capital.

- **Refer to “Bondholder information,” available at ubs.com/investors, for more information about the eligibility of capital and senior unsecured debt instruments and key features and terms and conditions of capital instruments**

Total loss-absorbing capacity and leverage ratio requirements

Going concern capital requirements

Under the Swiss SRB requirements, total going concern minimum requirements for all Swiss SRBs are a capital ratio requirement of 12.86% of RWA and a leverage ratio requirement of 4.5%. In addition to these minimum requirements, an add-on reflecting the degree of systemic importance is applied, based on market share and LRD. The applicable market share add-on requirements for UBS were unchanged at 0.72% of RWA and 0.25% of LRD. The applicable LRD add-on requirements remained unchanged at 0.72% of RWA and 0.25% of LRD, as our Group LRD remained within the same add-on bucket.

On 30 September 2022, the Swiss countercyclical capital buffer was reactivated, at a maximum level of 2.5% on risk-weighted positions that are directly or indirectly backed by residential properties in Switzerland. This increased our minimum CET1 capital requirement by 27 basis points as of 31 December 2022. We also continued to apply countercyclical buffer requirements introduced in other BCBS member jurisdictions, which resulted in an additional buffer requirement of 7 basis points as of 31 December 2022. Overall, countercyclical capital buffers contributed 34 basis points to our minimum CET1 capital requirement as of 31 December 2022.

The total going concern capital requirements applicable are 14.64% of RWA (including countercyclical buffer requirements) and 5.00% of LRD. Furthermore, of the total going concern capital requirement of 14.64% of RWA, at least 10.34% must be met with CET1 capital, while a maximum of 4.3% can be met with high-trigger loss-absorbing AT1 capital instruments (including our existing outstanding low-trigger AT1 capital instruments, which qualify until their first call date as mentioned above).

Similarly, of the total going concern leverage ratio requirement of 5.00%, at least 3.5% must be met with CET1 capital, while a maximum of 1.5% can be met with high-trigger loss-absorbing AT1 capital instruments (including our existing outstanding low-trigger AT1 capital instruments, which qualify until their first call date as mentioned above).

Gone concern loss-absorbing capacity requirements

As an internationally active Swiss SRB, UBS is also subject to gone concern loss-absorbing capacity requirements. The gone concern requirements also include add-ons for market share and LRD.

Under the Swiss SRB framework, banks are eligible for a rebate on the gone concern requirement if they take actions that facilitate recovery and resolvability beyond the minimum requirements. The amount of the rebate for improved resolvability is assessed annually by the Swiss Financial Market Supervisory Authority (FINMA). Based on actions we had completed by December 2021 to improve resolvability, FINMA granted a rebate on the gone concern requirement of 65% of the aforementioned maximum rebate in the third quarter of 2022, with an effective maximum rebate of 3.56 percentage points for the RWA-based requirement and 1.25 percentage points for the LRD-based requirement as of 31 December 2022.

Our gone concern requirements are further reduced when higher quality capital instruments (CET1 capital, low-trigger loss-absorbing AT1 or certain low-trigger tier 2 capital instruments) are used to meet gone concern requirements. As of 31 December 2022, UBS used low-trigger tier 2 capital to fulfill gone concern requirements, resulting in a reduction of 0.38 percentage points for the RWA-based requirement.

From 1 January 2022 onward, the gone concern requirement after the application of the rebate for resolvability measures and the reduction for the use of higher quality capital instruments has been floored at 10.0% and 3.75% for the RWA- and LRD-based requirements, respectively.

In November 2022, the Swiss Federal Council adopted amendments to the Banking Act and the Banking Ordinance and both entered into force as of 1 January 2023. The amendments replace the resolvability discount on the gone concern capital requirements for systemically important banks (SIBs), including UBS, with a reduced base gone concern capital requirement. In addition, FINMA has the authority to impose a surcharge of up to 25% of the base gone concern capital requirement based on obstacles to a SIB's resolvability identified in future resolvability assessments. We currently expect that our total gone concern requirements will remain substantially unchanged in 2023 as a result of these changes.

In this report, we refer to the RWA-based gone concern requirements as gone concern loss-absorbing capacity requirements and the RWA-based gone concern ratio is referred to as the gone concern loss-absorbing capacity ratio.

The table below provides the RWA- and LRD-based requirements and information as of 31 December 2022.

Swiss SRB going and gone concern requirements and information

As of 31.12.22

USD m, except where indicated

	RWA		LRD	
	in %		in %	
Required going concern capital				
Total going concern capital	14.64¹	46,802	5.00¹	51,423
Common equity tier 1 capital	10.34	33,060	3.50²	35,996
<i>of which: minimum capital</i>	4.50	14,381	1.50	15,427
<i>of which: buffer capital</i>	5.50	17,577	2.00	20,569
<i>of which: countercyclical buffer</i>	0.34	1,102		
Maximum additional tier 1 capital	4.30	13,742	1.50	15,427
<i>of which: additional tier 1 capital</i>	3.50	11,185	1.50	15,427
<i>of which: additional tier 1 buffer capital</i>	0.80	2,557		
Eligible going concern capital				
Total going concern capital	18.25	58,321	5.67	58,321
Common equity tier 1 capital	14.22	45,457	4.42	45,457
Total loss-absorbing additional tier 1 capital³	4.03	12,864	1.25	12,864
<i>of which: high-trigger loss-absorbing additional tier 1 capital</i>	3.65	11,675	1.14	11,675
<i>of which: low-trigger loss-absorbing additional tier 1 capital</i>	0.37	1,189	0.12	1,189
Required gone concern capital				
Total gone concern loss-absorbing capacity⁴	10.36	33,105	3.75	38,567
<i>of which: base requirement⁵</i>	12.86	41,099	4.50	46,281
<i>of which: additional requirement for market share and LRD</i>	1.44	4,602	0.50	5,142
<i>of which: applicable reduction on requirements</i>	(3.94)	(12,596)	(1.25)	(12,856)
<i>of which: rebate granted⁶</i>	(3.56)	(11,385)	(1.25)	(12,856)
<i>of which: reduction for usage of low-trigger tier 2 capital instruments</i>	(0.38)	(1,211)	0.00	0
Eligible gone concern capital				
Total gone concern loss-absorbing capacity	14.70	46,991	4.57	46,991
Total tier 2 capital	0.93	2,958	0.29	2,958
<i>of which: low-trigger loss-absorbing tier 2 capital</i>	0.76	2,422	0.24	2,422
<i>of which: non-Basel III-compliant tier 2 capital</i>	0.17	536	0.05	536
TLAC-eligible senior unsecured debt	13.78	44,033	4.28	44,033
Total loss-absorbing capacity				
Required total loss-absorbing capacity	25.00	79,907	8.75	89,990
Eligible total loss-absorbing capacity	32.95	105,312	10.24	105,312
Risk-weighted assets / leverage ratio denominator				
Risk-weighted assets		319,585		
Leverage ratio denominator				1,028,461

1 Includes applicable add-ons of 1.44% for RWA and 0.50% for LRD.

2 Our minimum CET1 leverage ratio requirement of 3.5% consists of a 1.5% base requirement, a 1.5% base buffer capital requirement, a 0.25% LRD add-on requirement and a 0.25% market share add-on requirement based on our Swiss credit business.

3 Includes outstanding low-trigger loss-absorbing additional tier 1 capital instruments, which are available under the Swiss systemically relevant bank framework to meet the going concern requirements until their first call date. As of their first call date, these instruments are eligible to meet the gone concern requirements.

4 A maximum of 25% of the gone concern requirements can be met with instruments that have a remaining maturity of between one and two years. Once at least 75% of the minimum gone concern requirement has been met with instruments that have a remaining maturity of greater than two years, all instruments that have a remaining maturity of between one and two years remain eligible to be included in the total gone concern capital.

5 The gone concern requirement after the application of the rebate for resolvability measures and the reduction for the use of higher-quality capital instruments is floored at 10% and 3.75% for the RWA- and LRD-based requirements, respectively. This means that the combined reduction may not exceed 4.3 percentage points for the RWA-based requirement of 14.3% and 1.25 percentage points for the LRD-based requirement of 5.0%.

6 Based on the actions we completed up to December 2021 to improve resolvability, FINMA granted an increase in the rebate on the gone concern requirement from 55.0% to 65.0% of the maximum rebate, effective 1 July 2022, with an effective maximum rebate of 1.25 percentage points for the LRD-based requirements and – given the risk density of 35% underlying the regulatory requirements – an effective maximum rebate of 3.56 percentage points for the RWA-based requirements.

Total loss-absorbing capacity

Swiss SRB going and gone concern information

<i>USD m, except where indicated</i>	31.12.22	31.12.21
Eligible going concern capital		
Total going concern capital	58,321	60,488
Total tier 1 capital	58,321	60,488
Common equity tier 1 capital	45,457	45,281
Total loss-absorbing additional tier 1 capital	12,864	15,207
<i>of which: high-trigger loss-absorbing additional tier 1 capital</i>	11,675	12,783
<i>of which: low-trigger loss-absorbing additional tier 1 capital</i>	1,189	2,425
Eligible gone concern capital		
Total gone concern loss-absorbing capacity	46,991	44,264
Total tier 2 capital	2,958	3,144
<i>of which: low-trigger loss-absorbing tier 2 capital</i>	2,422	2,596
<i>of which: non-Basel III-compliant tier 2 capital</i>	536	547
TLAC-eligible senior unsecured debt	44,033	41,120
Total loss-absorbing capacity		
Total loss-absorbing capacity	105,312	104,752
Risk-weighted assets / leverage ratio denominator		
Risk-weighted assets	319,585	302,209
Leverage ratio denominator	1,028,461	1,068,862
Capital and loss-absorbing capacity ratios (%)		
Going concern capital ratio	18.2	20.0
<i>of which: common equity tier 1 capital ratio</i>	14.2	15.0
Gone concern loss-absorbing capacity ratio	14.7	14.6
Total loss-absorbing capacity ratio	33.0	34.7
Leverage ratios (%)		
Going concern leverage ratio	5.7	5.7
<i>of which: common equity tier 1 leverage ratio</i>	4.42	4.24
Gone concern leverage ratio	4.6	4.1
Total loss-absorbing capacity leverage ratio	10.2	9.8

Audited |

Reconciliation of IFRS equity to Swiss SRB common equity tier 1 capital

<i>USD m</i>	31.12.22	31.12.21
Total IFRS equity	57,218	61,002
Equity attributable to non-controlling interests	(342)	(340)
Defined benefit plans, net of tax	(311)	(270)
Deferred tax assets recognized for tax loss carry-forwards	(4,077)	(4,565)
Deferred tax assets on temporary differences, excess over threshold	(64)	(49)
Goodwill, net of tax ¹	(5,754)	(5,838)
Intangible assets, net of tax	(150)	(180)
Compensation-related components (not recognized in net profit)	(2,287)	(1,700)
Expected losses on advanced internal ratings-based portfolio less provisions	(471)	(482)
Unrealized (gains) / losses from cash flow hedges, net of tax	4,234	(628)
Own credit related to (gains) / losses on financial liabilities measured at fair value that existed at the balance sheet date, net of tax	(523)	315
Own credit related to (gains) / losses on derivative financial instruments that existed at the balance sheet date	(105)	(50)
Unrealized gains related to financial assets at fair value through OCI, net of tax	0	(68)
Prudential valuation adjustments	(201)	(167)
Accruals for dividends to shareholders	(1,683)	(1,700)
Other	(29)	1
Total common equity tier 1 capital	<u>45,457</u>	<u>45,281</u>

- 1 Includes goodwill related to significant investments in financial institutions of USD 20m as of 31 December 2022 (31 December 2021: USD 22m) presented on the balance sheet line Investments in associates.



Total loss-absorbing capacity and movement

Our total loss-absorbing capacity increased by USD 0.6bn to USD 105.3bn as of 31 December 2022.

Going concern capital and movement

Audited | Our CET1 capital mainly consists of: share capital; share premium, which primarily consists of additional paid-in capital related to shares issued; and retained earnings. A detailed reconciliation of International Financial Reporting Standards (IFRS) equity to CET1 capital is provided in the “Reconciliation of IFRS equity to Swiss SRB common equity tier 1 capital” table.

Our CET1 capital increased by USD 0.2bn to USD 45.5bn as of 31 December 2022, mainly as a result of operating profit before tax of USD 9.6bn with associated current tax expenses of USD 1.4bn, partly offset by share repurchases of USD 5.6bn under our share repurchase programs, dividend accruals of USD 1.7bn, negative foreign currency effects of USD 0.5bn and compensation- and own share-related capital components of USD 0.3bn.

- **Refer to “UBS shares” in this section for more information about our share repurchase programs**

Our loss-absorbing AT1 capital decreased by USD 2.3bn to USD 12.9bn, mainly driven by our announcement on 5 December 2022 that we intended to redeem an AT1 capital instrument on 31 January 2023, the first call date (ISIN CH0400441280, with a nominal amount of USD 2.0bn, issued on 31 January 2018; this instrument ceased to be eligible as AT1 capital when the call was announced in December 2022), a call of a USD 1.1bn equivalent AT1 capital instrument denominated in euro, and interest rate risk hedge, foreign currency translation and other effects. This was partly offset by two issuances of AT1 capital instruments denominated in US dollars and Swiss francs amounting to USD 1.8bn equivalent. ▲

Gone concern loss-absorbing capacity and movement

Audited | Our total gone concern loss-absorbing capacity increased by USD 2.7bn to USD 47.0bn as of 31 December 2022 and included USD 44.0bn of TLAC-eligible senior unsecured debt. ▲

The increase was mainly due to 21 issuances of TLAC-eligible senior unsecured debt instruments denominated in US dollars, euro, yen and Australian dollars amounting to USD 15.2bn, partly offset by four calls of TLAC-eligible senior unsecured debt instruments denominated in US dollars amounting to USD 6.3bn, as well as interest rate risk hedge, foreign currency translation and other effects.

Loss-absorbing capacity and leverage ratios

Our CET1 capital ratio decreased to 14.2% from 15.0%, mainly reflecting a USD 17.4bn increase in RWA.

Our CET1 leverage ratio increased to 4.42% from 4.24%, predominantly due to a USD 40.4bn decrease in the LRD.

Our gone concern loss-absorbing capacity ratio increased to 14.7% from 14.6%, due to an increase in gone concern loss-absorbing capacity of USD 2.7bn, partly offset by the aforementioned increase in RWA.

Our gone concern leverage ratio increased to 4.6% from 4.1%, driven by the aforementioned increase in gone concern loss-absorbing capacity and the aforementioned decrease in the LRD.

Swiss SRB total loss-absorbing capacity movement

USD m

Going concern capital	Swiss SRB
Common equity tier 1 capital as of 31.12.21	45,281
Operating profit before tax	9,604
Current tax (expense) / benefit	(1,448)
Share repurchase programs	(5,602)
Accruals for proposed dividends to shareholders	(1,683)
Foreign currency translation effects, before tax	(529)
Compensation- and own share-related capital components	(258)
Other	93
Common equity tier 1 capital as of 31.12.22	45,457
Loss-absorbing additional tier 1 capital as of 31.12.21	15,207
Issuance of high-trigger loss-absorbing additional tier 1 capital	1,789
Call of high-trigger loss-absorbing additional tier 1 capital ¹	(2,000)
Call of low-trigger loss-absorbing additional tier 1 capital	(1,121)
Interest rate risk hedge, foreign currency translation and other effects	(1,011)
Loss-absorbing additional tier 1 capital as of 31.12.22	12,864
Total going concern capital as of 31.12.21	60,488
Total going concern capital as of 31.12.22	58,321
Gone concern loss-absorbing capacity	
Tier 2 capital as of 31.12.21	3,144
Interest rate risk hedge, foreign currency translation and other effects	(185)
Tier 2 capital as of 31.12.22	2,958
TLAC-eligible senior unsecured debt as of 31.12.21	41,120
Issuance of TLAC-eligible senior unsecured debt	15,237
Call of TLAC-eligible senior unsecured debt	(6,250)
Interest rate risk hedge, foreign currency translation and other effects	(6,075)
TLAC-eligible senior unsecured debt as of 31.12.22	44,033
Total gone concern loss-absorbing capacity as of 31.12.21	44,264
Total gone concern loss-absorbing capacity as of 31.12.22	46,991
Total loss-absorbing capacity	
Total loss-absorbing capacity as of 31.12.21	104,752
Total loss-absorbing capacity as of 31.12.22	105,312

1 On 5 December 2022, we announced our intention to redeem an AT1 capital instrument on 31 January 2023, the first call date (ISIN CH0400441280). This instrument ceased to be eligible as AT1 capital when the call was announced.

Additional information

Active management of sensitivity to foreign exchange movements

Group Treasury is mandated to minimize adverse effects from changes in foreign currency rates on our CET1 capital and / or CET1 capital ratio. A significant portion of our CET1 capital and RWA is denominated in Swiss francs, euro, pounds sterling and other currencies. In order to hedge the CET1 capital ratio, CET1 capital needs to have foreign currency exposure, leading to foreign currency rates sensitivity of CET1 capital.

Consequently, it is not possible to simultaneously fully hedge CET1 capital and the CET1 capital ratio. As the proportion of RWA denominated in currencies other than the US dollar outweighs CET1 capital in such currencies, a significant appreciation of the US dollar against such currencies could benefit our capital ratios, while a significant depreciation of the US dollar against these currencies could adversely affect our capital ratios.

The Group Asset and Liability Committee, a committee of the Group Executive Board, has mandated Group Treasury to adjust the currency mix of CET1 capital, within limits set by the BoD, to balance the effect of foreign exchange movements on CET1 capital and the CET1 capital ratio. Limits are in place for the sensitivity of both CET1 capital and the CET1 capital ratio to an appreciation or depreciation of 10% in the value of the US dollar against other currencies.

Sensitivity to currency movements

Risk-weighted assets

We estimate that a 10% depreciation of the US dollar against other currencies would have increased our RWA by USD 13bn and our CET1 capital by USD 1.4bn as of 31 December 2022 (31 December 2021: USD 13bn and USD 1.4bn, respectively) and decreased our CET1 capital ratio 13 basis points (31 December 2021: 15 basis points).

Conversely, we estimate that a 10% appreciation of the US dollar against other currencies would have decreased our RWA by USD 12bn and our CET1 capital by USD 1.3bn as of 31 December 2022 (31 December 2021: USD 11bn and USD 1.3bn, respectively) and increased our CET1 capital ratio 13 basis points (31 December 2021: 14 basis points).

Leverage ratio denominator

Our leverage ratio is also sensitive to foreign exchange movements as a result of the currency mix of our capital and LRD. When adjusting the currency mix in capital, potential effects on the going concern leverage ratio are taken into account and the sensitivity of the going concern leverage ratio to an appreciation or depreciation of 10% in the value of the US dollar against other currencies is actively monitored.

We estimate that a 10% depreciation of the US dollar against other currencies would have increased our LRD by USD 63bn as of 31 December 2022 (31 December 2021: USD 63bn) and decreased our Swiss SRB going concern leverage ratio 17 basis points (31 December 2021: 15 basis points). Conversely, we estimate that a 10% appreciation of the US dollar against other currencies would have decreased our LRD by USD 57bn (31 December 2021: USD 57bn) and increased our Swiss SRB going concern leverage ratio 17 basis points (31 December 2021: 16 basis points). The aforementioned sensitivities do not consider foreign currency translation effects related to defined benefit plans other than those related to the currency translation of the net equity of foreign operations.

Estimated effect on capital from litigation, regulatory and similar matters subject to provisions and contingent liabilities

We have estimated the loss in capital that we could incur as a result of the risks associated with the matters described in “Note 17 Provisions and contingent liabilities” in the “Consolidated financial statements” section of this report. We have employed for this purpose the advanced measurement approach (AMA) methodology that we use when determining the capital requirements associated with operational risks, based on a 99.9% confidence level over a 12-month horizon. The methodology takes into consideration UBS and industry experience for the AMA operational risk categories to which those matters correspond, as well as the external environment affecting risks of these types, in isolation from other areas. On this basis, we estimate the maximum loss in capital that we could incur over a 12-month period as a result of our risks associated with these operational risk categories at USD 4.4bn as of 31 December 2022, unchanged compared with the prior year-end. This estimate is not related to and does not take into account any provisions recognized for any of these matters and does not constitute a subjective assessment of our actual exposure in any of these matters.

- **Refer to “Non-financial risk” in the “Risk management and control” section of this report for more information**
- **Refer to “Note 17 Provisions and contingent liabilities” in the “Consolidated financial statements” section of this report for more information**

Capital and capital ratios of our significant regulated subsidiaries

UBS Group AG is a holding company conducting substantially all operations through UBS AG and subsidiaries thereof. UBS Group AG and UBS AG have contributed a significant portion of their respective capital to, and provided substantial liquidity to, subsidiaries. Many of these subsidiaries are subject to regulations requiring compliance with minimum capital, liquidity and similar requirements. Regulatory capital components and capital ratios of our significant regulated subsidiaries determined under the regulatory framework of each subsidiary’s home jurisdiction are provided in the “Financial and regulatory key figures for our significant regulated subsidiaries and sub-groups” section of this report. Supervisory authorities generally have discretion to impose higher requirements, or to otherwise limit the activities of subsidiaries. Supervisory authorities also may require entities to measure capital and leverage ratios on a stressed basis, and may limit the ability of the entity to engage in new activities or take capital actions based on the results of those tests.

- **Refer to the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more capital and other regulatory information about our significant regulated subsidiaries and sub-groups**

Joint liability of UBS AG and UBS Switzerland AG

In June 2015, upon the transfer of the Personal & Corporate Banking and Global Wealth Management businesses booked in Switzerland from UBS AG to UBS Switzerland AG, UBS AG and UBS Switzerland AG assumed joint liability for obligations transferred to UBS Switzerland AG and existing at UBS AG, respectively. Under certain circumstances, the Swiss Banking Act and FINMA’s Banking Insolvency Ordinance authorize FINMA to modify, extinguish or convert to common equity liabilities of a bank in connection with a resolution or insolvency of such bank.

The joint liability amounts have declined as obligations matured, terminated or were novated following the transfer date. As of 31 December 2022, the liability of UBS Switzerland AG amounted to CHF 4.0bn (USD 4.3bn), a decrease of CHF 1.2bn (USD 1.4bn) compared with 31 December 2021. The respective liability of UBS AG has been substantially extinguished.

Risk-weighted assets

RWA development in 2022

During 2022, RWA increased by USD 17.4bn to USD 319.6bn, primarily driven by increases of USD 10.4bn in credit and counterparty credit risk RWA, USD 4.7bn in operational risk RWA, and USD 2.4bn in market risk RWA.

- Refer to the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more information about RWA movements and definitions of RWA movement key drivers

Movement in risk-weighted assets by key driver

<i>USD bn</i>	RWA as of 31.12.21	Currency effects	Methodology and policy changes	Model updates / changes	Regulatory add-ons	Asset size and other ¹	RWA as of 31.12.22
Credit and counterparty credit risk ²	190.1	(3.6)	0.1	6.7	0.3	6.9	200.5
Non-counterparty-related risk ³	24.3	(0.2)				0.1	24.2
Market risk	11.1		1.2	(2.4)	2.3	1.3	13.5
Operational risk	76.7			4.6			81.4
Total	302.2	(3.8)	1.2	9.0	2.6	8.3	319.6

- 1 Includes the Pillar 3 categories “Asset size,” “Credit quality of counterparties,” “Acquisitions and disposals” and “Other.” For more information, refer to the 31 December 2022 Pillar 3 report, available under “Pillar 3 disclosures” at ubs.com/investors.
- 2 Includes settlement risk, credit valuation adjustments, equity exposures in the banking book, investments in funds and securitization exposures in the banking book.
- 3 Non-counterparty-related risk includes deferred tax assets recognized for temporary differences, property, equipment, software and other items.

Credit and counterparty credit risk

Credit and counterparty credit risk RWA increased by USD 10.4bn to USD 200.5bn as of 31 December 2022. This increase was mainly driven by model updates of USD 6.7bn and asset size increases of USD 6.4bn, partly offset by currency effects of USD 3.6bn. Model updates resulted in an increase of USD 6.7bn, mainly relating to structured margin loans and similar products in Global Wealth Management, prime brokerage clients, private equity and hedge fund financing trades and structured margin loans in the Investment Bank, and mortgage loans in Personal & Corporate Banking.

Asset size increased by USD 6.4bn, mainly due to higher RWA from loans and loan commitments in Global Wealth Management and, to a lesser extent, in Personal & Corporate Banking, partly offset by lower RWA from loans and loan commitments in the Investment Bank.

Movement in credit and counterparty credit risk RWA by key driver¹

<i>USD bn</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Group
Total credit and counterparty credit risk RWA as of 31.12.21	56.9	63.0	3.2	60.5	6.4	190.1
Asset size	8.2	2.9	(0.1)	(4.9)	0.3	6.4
Asset quality	0.3	(1.5)	0.0	0.0	0.4	(0.7)
Model updates	2.1	1.3	0.0	3.3	0.0	6.7
Methodology and policy changes	0.1	0.0	0.0	0.0	0.0	0.1
Regulatory add-ons	0.0	0.0	0.0	0.3	0.0	0.3
Acquisitions and disposals	1.2	0.0	0.0	0.0	0.0	1.2
Foreign exchange movements	(0.5)	(0.9)	(0.1)	(1.5)	(0.6)	(3.6)
Other	0.0	0.0	0.0	0.0	0.0	0.0
Total movement	11.5	1.9	(0.2)	(2.8)	0.1	10.4
Total credit and counterparty credit risk RWA as of 31.12.22	68.4	64.9	3.0	57.7	6.5	200.5

- 1 Refer to the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for the definitions of credit and counterparty credit risk RWA movement categories.

- Refer to the “Risk management and control” section of this report and the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more information about credit and counterparty credit risk developments

Market risk

Market risk RWA increased by USD 2.4bn to USD 13.5bn as of 31 December 2022, driven by an increase of USD 2.3bn in regulatory add-ons,

reflecting updates from the monthly risks-not-in-VaR assessment and an increase of USD 1.3bn in asset size and other movements related to higher average regulatory and stressed value-at-risk levels in the Investment Bank's Global Markets business on the back of heightened market volatility in the first half of 2022. These increases were partly offset by decreases of USD 2.4bn from changes to the value-at-risk (VaR) model, and such decreases were partly offset by USD 1.2bn arising from the introduction of a FINMA-agreed temporary measure to offset a VaR-model-change-related RWA decrease that went live in the fourth quarter of 2022. We are in discussions with FINMA regarding material updates to the VaR model in 2023, which would replace the aforementioned temporary measure and the currently applied add-on related to time decay.

- **Refer to the “Risk management and control” section of this report and the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more information about market risk developments**

Operational risk

Operational risk RWA increased by USD 4.7bn to USD 81.4bn as of 31 December 2022. Following a review with FINMA regarding the French cross-border matter, we reflected additional operational risk RWA of USD 4.1bn in the first half of 2022. In the fourth quarter of 2022, we reflected an increase of USD 0.5bn driven by the annual recalibration of the advanced measurement approach (AMA) model used for the calculation of operational risk capital.

- Refer to “Advanced measurement approach model” in the “Risk management and control” section of this report for more information about the AMA model

Outlook

We expect that regulatory-driven updates to models will result in an RWA increase of around USD 4bn in 2023. The extent and timing of RWA changes may vary as model updates are completed and receive regulatory approval, along with changes in the composition of the relevant portfolios. In addition, business growth and changes in market factors are expected to increase RWA at the beginning of 2023, following a period of lower levels of client activity and market volatility toward the end of the fourth quarter of 2022.

- Refer to the “Regulatory and legal developments” section of this report for more information

Risk-weighted assets by business division and Group Functions

<i>USD bn</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total RWA
	31.12.22					
Credit and counterparty credit risk ¹	68.4	64.9	3.0	57.7	6.5	200.5
Non-counterparty-related risk ²	5.9	1.9	0.6	3.7	12.1	24.2
Market risk	1.6	0.0		10.1	1.8	13.5
Operational risk	37.6	9.1	3.2	21.3	10.1	81.4
Total	113.5	75.9	6.7	92.8	30.6	319.6
	31.12.21					
Credit and counterparty credit risk ¹	56.9	63.0	3.2	60.5	6.4	190.1
Non-counterparty-related risk ²	6.2	2.0	0.6	3.5	12.0	24.3
Market risk	1.6	0.0		8.1	1.5	11.1
Operational risk	35.2	8.1	3.0	20.2	10.3	76.7
Total	99.8	73.2	6.9	92.2	30.1	302.2
	31.12.22 vs 31.12.21					
Credit and counterparty credit risk ¹	11.5	1.9	(0.2)	(2.8)	0.1	10.4
Non-counterparty-related risk ²	(0.3)	(0.1)	0.0	0.2	0.2	0.0
Market risk	0.0	0.0		2.1	0.3	2.4
Operational risk	2.5	1.1	0.1	1.1	(0.2)	4.6
Total	13.6	2.8	(0.1)	0.6	0.4	17.4

- 1 Includes settlement risk, credit valuation adjustments, equity exposures in the banking book, investments in funds and securitization exposures in the banking book.
- 2 Non-counterparty-related risk includes deferred tax assets recognized for temporary differences (31 December 2022: USD 11.4bn; 31 December 2021: USD 11.4bn), as well as property, equipment, software and other items (31 December 2022: USD 12.9bn; 31 December 2021: USD 12.9bn).

Leverage ratio denominator

The LRD decreased by USD 40.4bn to USD 1,028.5bn as of 31 December 2022, driven by currency effects of USD 24.5bn and a USD 15.9bn decrease due to asset size and other movements.

Movement in leverage ratio denominator by key driver

<i>USD bn</i>	LRD as of 31.12.21	Currency effects	Asset size and other	LRD as of 31.12.22
On-balance sheet exposures (excluding derivatives and securities financing transactions) ¹	847.4	(17.3)	(14.1)	816.0
Derivatives	90.9	(3.5)	2.9	90.3
Securities financing transactions	109.2	(3.1)	(7.4)	98.6

Off-balance sheet items	32.8	(0.5)	2.2	34.4
Deduction items	(11.5)	0.1	0.6	(10.8)
Total	<u>1,068.9</u>	<u>(24.5)</u>	<u>(15.9)</u>	<u>1,028.5</u>

1 The exposures exclude derivative financial instruments, cash collateral receivables on derivative instruments, receivables from securities financing transactions, and margin loans, as well as prime brokerage receivables and financial assets at fair value not held for trading, both related to securities financing transactions. These exposures are presented separately under Derivatives and Securities financing transactions in this table.

The LRD movements described below exclude currency effects.

On-balance sheet exposures (excluding derivatives and securities financing transactions) decreased by USD 14.1bn, mainly driven by lower trading portfolio assets in the Investment Bank, lower central bank balances, and a decrease in lending assets, mainly in Global Wealth Management, partly offset by purchases of high-quality liquid asset securities.

Derivatives increased by USD 2.9bn, primarily reflecting market-driven movements, partly offset by lower client volumes, in the Investment Bank.

Securities financing transactions decreased by USD 7.4bn, mainly due to lower client activity levels and lower brokerage receivables in the Investment Bank, as well as trade roll-offs in Group Treasury.

Off-balance sheet items increased by USD 2.2bn, mainly driven by higher unutilized credit lines in Global Wealth Management, and an increase in forward starting reverse repurchase agreements in Group Treasury.

- Refer to “Balance sheet and off-balance sheet” in this section for more information about balance sheet movements

Leverage ratio denominator by business division and Group Functions

USD bn	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
	31.12.22					
Total IFRS assets	388.5	235.2	17.3	391.3	71.9	1,104.4
Difference in scope of consolidation ¹	0.0	0.0	(13.2)	(0.1)	0.0	(13.3)
Less: derivatives and securities financing transactions ²	(23.7)	(11.9)	(0.1)	(201.7)	(37.7)	(275.0)
On-balance sheet exposures	364.8	223.4	4.0	189.5	34.2	816.0
Derivatives	5.4	1.5	0.0	80.0	3.3	90.3
Securities financing transactions	20.5	10.8	0.1	40.4	26.8	98.6
Off-balance sheet items	8.8	16.6		6.9	2.1	34.4
Items deducted from Swiss SRB tier 1 capital	(5.2)	(0.2)	(1.2)	(0.4)	(3.9)	(10.8)
Total	394.4	252.1	2.9	316.6	62.6	1,028.5
	31.12.21					
Total IFRS assets	395.2	225.4	25.6	346.4	124.5	1,117.2
Difference in scope of consolidation ¹	0.0	0.0	(21.5)	(0.1)	0.0	(21.6)
Less: derivatives and securities financing transactions ²	(25.9)	(11.8)	(0.1)	(159.2)	(51.2)	(248.2)
On-balance sheet exposures	369.3	213.6	4.1	187.1	73.3	847.4
Derivatives	5.8	1.4	0.0	79.0	4.7	90.9
Securities financing transactions	22.6	10.9	0.0	45.7	29.9	109.2
Off-balance sheet items	7.2	17.5	0.0	7.6	0.5	32.8
Items deducted from Swiss SRB tier 1 capital	(5.3)	(0.2)	(1.2)	(0.3)	(4.4)	(11.5)
Total	399.6	243.2	2.9	319.2	104.0	1,068.9
	31.12.22 vs 31.12.21					
Total IFRS assets	(6.7)	9.9	(8.3)	44.9	(52.6)	(12.8)
Difference in scope of consolidation ¹	0.0	0.0	8.3	0.0	0.0	8.3
Less: derivatives and securities financing transactions ²	2.2	(0.1)	0.0	(42.5)	13.5	(26.9)
On-balance sheet exposures	(4.5)	9.8	(0.1)	2.4	(39.1)	(31.4)
Derivatives	(0.4)	0.1	0.0	1.0	(1.3)	(0.7)
Securities financing transactions	(2.1)	(0.1)	0.0	(5.3)	(3.1)	(10.6)
Off-balance sheet items	1.6	(0.9)	0.0	(0.7)	1.5	1.6
Items deducted from Swiss SRB tier 1 capital	0.1	0.0	0.0	(0.1)	0.6	0.6
Total	(5.2)	8.8	0.0	(2.6)	(41.4)	(40.4)

1 Represents the difference between the IFRS and the regulatory scope of consolidation, which is the applicable scope for the LRD calculation.

2 The exposures consist of derivative financial instruments, cash collateral receivables on derivative instruments, receivables from securities financing transactions, and margin loans, as well as prime brokerage receivables and financial assets at fair value not held for trading, both related to securities financing transactions, all of which are in accordance with the regulatory scope of consolidation. These exposures are presented separately under Derivatives and Securities financing transactions in this table.

UBS AG consolidated total loss-absorbing capacity and leverage ratio information

Going and gone concern requirements and information

UBS is considered an SRB under Swiss banking law and, on a consolidated basis, both UBS Group AG and UBS AG are required to comply with regulations based on the Basel III framework as applicable for Swiss SRBs.

The Swiss SRB framework and requirements applicable to UBS AG consolidated are consistent with those applicable to UBS Group AG consolidated and are described in the “Capital, liquidity and funding, and balance sheet” section of this report.

- **Refer to “Regulatory framework” in this section for more information about total loss-absorbing capacity, leverage ratio requirements and gone concern rebate**

UBS AG is subject to going and gone concern requirements on a standalone basis. Capital and other regulatory information for UBS AG standalone is provided under “Holding company and significant regulated subsidiaries and subgroups” at ubs.com/investors and in the 31 December 2022 Pillar 3 Report available under “Pillar 3 disclosures” at ubs.com/investors.

The table below provides the RWA- and LRD-based requirements and information as of 31 December 2022 for UBS AG consolidated.

Swiss SRB going and gone concern requirements and information

<u>As of 31.12.22</u> <i>USD m, except where indicated</i>	<u>RWA</u> <u>in %</u>		<u>LRD</u> <u>in %</u>	
Required going concern capital				
Total going concern capital	14.64¹	46,545	5.00¹	51,478
Common equity tier 1 capital	10.34	32,878	3.50²	36,035
<i>of which: minimum capital</i>	<i>4.50</i>	<i>14,302</i>	<i>1.50</i>	<i>15,443</i>
<i>of which: buffer capital</i>	<i>5.50</i>	<i>17,480</i>	<i>2.00</i>	<i>20,591</i>
<i>of which: countercyclical buffer</i>	<i>0.34</i>	<i>1,096</i>		
Maximum additional tier 1 capital	4.30	13,666	1.50	15,443
<i>of which: additional tier 1 capital</i>	<i>3.50</i>	<i>11,124</i>	<i>1.50</i>	<i>15,443</i>
<i>of which: additional tier 1 buffer capital</i>	<i>0.80</i>	<i>2,543</i>		
Eligible going concern capital				
Total going concern capital	17.23	54,770	5.32	54,770
Common equity tier 1 capital	13.51	42,929	4.17	42,929
Total loss-absorbing additional tier 1 capital	3.73	11,841	1.15	11,841
<i>of which: high-trigger loss-absorbing additional tier 1 capital</i>	<i>3.35</i>	<i>10,654</i>	<i>1.03</i>	<i>10,654</i>
<i>of which: low-trigger loss-absorbing additional tier 1 capital³</i>	<i>0.37</i>	<i>1,187</i>	<i>0.12</i>	<i>1,187</i>
Required gone concern capital				
Total gone concern loss-absorbing capacity⁴	10.36	32,922	3.75	38,609
<i>of which: base requirement⁵</i>	<i>12.86</i>	<i>40,872</i>	<i>4.50</i>	<i>46,330</i>
<i>of which: additional requirement for market share and LRD</i>	<i>1.44</i>	<i>4,577</i>	<i>0.50</i>	<i>5,148</i>
<i>of which: applicable reduction on requirements</i>	<i>(3.94)</i>	<i>(12,527)</i>	<i>(1.25)</i>	<i>(12,870)</i>
<i>of which: rebate granted⁶</i>	<i>(3.56)</i>	<i>(11,322)</i>	<i>(1.25)</i>	<i>(12,870)</i>
<i>of which: reduction for usage of low-trigger tier 2 capital instruments</i>	<i>(0.38)</i>	<i>(1,204)</i>	<i>0.00</i>	<i>0</i>
Eligible gone concern capital				
Total gone concern loss-absorbing capacity	14.79	46,991	4.56	46,991
Total tier 2 capital	0.93	2,958	0.29	2,958
<i>of which: low-trigger loss-absorbing tier 2 capital</i>	<i>0.76</i>	<i>2,422</i>	<i>0.24</i>	<i>2,422</i>
<i>of which: non-Basel III-compliant tier 2 capital</i>	<i>0.17</i>	<i>536</i>	<i>0.05</i>	<i>536</i>
TLAC-eligible senior unsecured debt	13.85	44,033	4.28	44,033
Total loss-absorbing capacity				
Required total loss-absorbing capacity	25.00	79,467	8.75	90,087
Eligible total loss-absorbing capacity	32.02	101,761	9.88	101,761
Risk-weighted assets / leverage ratio denominator				
Risk-weighted assets		317,823		
Leverage ratio denominator				1,029,561

1 Includes applicable add-ons of 1.44% for RWA and 0.50% for leverage ratio denominator LRD.

2 Our minimum CET1 leverage ratio requirement of 3.5% consists of a 1.5% base requirement, a 1.5% base buffer capital requirement, a 0.25% LRD add-on requirement and a 0.25% market share add-on requirement based on our Swiss credit business.

- 3 Existing outstanding low-trigger AT1 capital instruments qualify as going concern capital at the UBS AG consolidated level, as agreed with FINMA, until their first call date. As of their first call date, these instruments are eligible to meet the gone concern requirements.
- 4 A maximum of 25% of the gone concern requirements can be met with instruments that have a remaining maturity of between one and two years. Once at least 75% of the minimum gone concern requirement has been met with instruments that have a remaining maturity of greater than two years, all instruments that have a remaining maturity of between one and two years remain eligible to be included in the total gone concern capital.
- 5 The gone concern requirement after the application of the rebate for resolvability measures and the reduction for the use of higher-quality capital instruments is floored at 10% and 3.75% for the RWA- and LRD-based requirements, respectively. This means that the combined reduction may not exceed 4.3 percentage points for the RWA-based requirement of 14.3% and 1.25 percentage points for the LRD-based requirement of 5.0%.
- 6 Based on the actions we completed up to December 2021 to improve resolvability, FINMA granted an increase in the rebate on the gone concern requirement from 55.0% to 65.0% of the maximum rebate, effective from 1 July 2022, with an effective maximum rebate of 1.25 percentage points for the LRD-based requirements and – given the risk density of 35% underlying the regulatory requirements – an effective maximum rebate of 3.56 percentage points for the RWA-based requirements.

Swiss SRB going and gone concern information

<i>USD m, except where indicated</i>	31.12.22	31.12.21
Eligible going concern capital		
Total going concern capital	54,770	55,434
Total tier 1 capital	54,770	55,434
Common equity tier 1 capital	42,929	41,594
Total loss-absorbing additional tier 1 capital	11,841	13,840
<i>of which: high-trigger loss-absorbing additional tier 1 capital</i>	<i>10,654</i>	<i>11,414</i>
<i>of which: low-trigger loss-absorbing additional tier 1 capital</i>	<i>1,187</i>	<i>2,426</i>
Eligible gone concern capital		
Total gone concern loss-absorbing capacity	46,991	44,264
Total tier 2 capital	2,958	3,144
<i>of which: low-trigger loss-absorbing tier 2 capital</i>	<i>2,422</i>	<i>2,596</i>
<i>of which: non-Basel III-compliant tier 2 capital</i>	<i>536</i>	<i>547</i>
TLAC-eligible senior unsecured debt	44,033	41,120
Total loss-absorbing capacity		
Total loss-absorbing capacity	101,761	99,698
Risk-weighted assets / leverage ratio denominator		
Risk-weighted assets	317,823	299,005
Leverage ratio denominator	1,029,561	1,067,679
Capital and loss-absorbing capacity ratios (%)		
Going concern capital ratio	17.2	18.5
<i>of which: common equity tier 1 capital ratio</i>	<i>13.5</i>	<i>13.9</i>
Gone concern loss-absorbing capacity ratio	14.8	14.8
Total loss-absorbing capacity ratio	32.0	33.3
Leverage ratios (%)		
Going concern leverage ratio	5.3	5.2
<i>of which: common equity tier 1 leverage ratio</i>	<i>4.17</i>	<i>3.90</i>
Gone concern leverage ratio	4.6	4.1
Total loss-absorbing capacity leverage ratio	9.9	9.3

UBS Group AG consolidated vs UBS AG consolidated loss-absorbing capacity and leverage ratio information

The going concern capital of UBS AG consolidated was USD 3.6bn lower than the going concern capital of UBS Group AG consolidated as of 31 December 2022, reflecting lower CET1 capital of USD 2.5bn and lower going concern loss-absorbing additional tier 1 (AT1) capital of USD 1.0bn.

The aforementioned difference in CET1 capital was primarily due to higher UBS AG consolidated accruals for dividends and USD 0.3bn lower UBS AG consolidated International Financial Reporting Standards equity, as well as a higher capital deduction at the UBS AG consolidated level related to deferred tax assets on temporary differences. The aforementioned factors were partly offset by compensation-related regulatory capital accruals at the UBS Group AG consolidated level.

The going concern loss-absorbing AT1 capital of UBS AG consolidated was USD 1.0bn lower than that of UBS Group AG consolidated as of 31 December 2022, mainly reflecting deferred contingent capital plan awards granted at Group level to eligible employees for the performance years 2017 to 2021, partly offset by four loss-absorbing AT1 capital instruments on lent by UBS Group AG to UBS AG.

Differences in capital between UBS Group AG consolidated and UBS AG consolidated related to employee compensation plans will reverse to the extent underlying services are performed by employees of, and are consequently charged to, UBS AG and its subsidiaries. Such reversal generally occurs over the service period of the employee compensation plans.

The leverage ratio framework for UBS AG consolidated is consistent with that of UBS Group AG consolidated. As of 31 December 2022, the going concern leverage ratio of UBS AG consolidated was 0.4 percentage points lower than that of UBS Group AG consolidated, mainly because the going concern capital of UBS AG consolidated was USD 3.6bn lower.

Reconciliation of IFRS equity to Swiss SRB common equity tier 1 capital (UBS Group AG vs UBS AG consolidated)

As of 31.12.22

<i>USD m</i>	UBS Group AG (consolidated)	UBS AG (consolidated)	Difference
Total IFRS equity	57,218	56,940	278
Equity attributable to non-controlling interests	(342)	(342)	
Defined benefit plans, net of tax	(311)	(311)	
Deferred tax assets recognized for tax loss carry-forwards	(4,077)	(4,077)	
Deferred tax assets on temporary differences, excess over threshold	(64)	(262)	198
Goodwill, net of tax	(5,754)	(5,754)	
Intangible assets, net of tax	(150)	(150)	
Compensation-related components (not recognized in net profit)	(2,287)		(2,287)
Expected losses on advanced internal ratings-based portfolio less provisions	(471)	(471)	
Unrealized (gains) / losses from cash flow hedges, net of tax	4,234	4,234	
Own credit related to (gains) / losses on financial liabilities measured at fair value that existed at the balance sheet date, net of tax	(523)	(523)	
Own credit related to (gains) / losses on derivative financial instruments that existed at the balance sheet date	(105)	(105)	
Unrealized gains related to financial assets at fair value through OCI, net of tax	0	0	
Prudential valuation adjustments	(201)	(201)	
Accruals for dividends to shareholders	(1,683)	(6,000)	4,317
Other	(29)	(51)	22
Total common equity tier 1 capital	45,457	42,929	2,528

Swiss SRB going and gone concern information (UBS Group AG vs UBS AG consolidated)

As of 31.12.22

<i>USD m, except where indicated</i>	UBS Group AG (consolidated)	UBS AG (consolidated)	Difference
Eligible going concern capital			
Total going concern capital	58,321	54,770	3,551
Total tier 1 capital	58,321	54,770	3,551
Common equity tier 1 capital	45,457	42,929	2,528
Total loss-absorbing additional tier 1 capital	12,864	11,841	1,023
<i>of which: high-trigger loss-absorbing additional tier 1 capital</i>	<i>11,675</i>	<i>10,654</i>	<i>1,021</i>
<i>of which: low-trigger loss-absorbing additional tier 1 capital</i>	<i>1,189</i>	<i>1,187</i>	<i>2</i>
Eligible gone concern capital			
Total gone concern loss-absorbing capacity	46,991	46,991	0
Total tier 2 capital	2,958	2,958	0
<i>of which: low-trigger loss-absorbing tier 2 capital</i>	<i>2,422</i>	<i>2,422</i>	<i>0</i>
<i>of which: non-Basel III-compliant tier 2 capital</i>	<i>536</i>	<i>536</i>	<i>0</i>
TLAC-eligible senior unsecured debt	44,033	44,033	0
Total loss-absorbing capacity			
Total loss-absorbing capacity	105,312	101,761	3,551
Risk-weighted assets / leverage ratio denominator			
Risk-weighted assets	319,585	317,823	1,762
Leverage ratio denominator	1,028,461	1,029,561	(1,100)
Capital and loss-absorbing capacity ratios (%)			
Going concern capital ratio	18.2	17.2	1.0
<i>of which: common equity tier 1 capital ratio</i>	<i>14.2</i>	<i>13.5</i>	<i>0.7</i>
Gone concern loss-absorbing capacity ratio	14.7	14.8	(0.1)
Total loss-absorbing capacity ratio	33.0	32.0	0.9
Leverage ratios (%)			

Going concern leverage ratio	5.7	5.3	0.4
<i>of which: common equity tier 1 leverage ratio</i>	4.42	4.17	0.25
Gone concern leverage ratio	4.6	4.6	0.0
Total loss-absorbing capacity leverage ratio	<u>10.2</u>	<u>9.9</u>	<u>0.4</u>

Equity attribution and return on attributed equity

Under our equity attribution framework, tangible equity is attributed based on a weighting of 50% each for average risk-weighted assets (RWA) and average leverage ratio denominator (LRD), which both include resource allocations from Group Functions to the business divisions (the BDs). Average RWA and LRD are converted to common equity tier 1 (CET1) capital equivalents using capital ratios of 12.5% and 3.75%, respectively. If the attributed tangible equity calculated under the weighted-driver approach is less than the CET1 capital equivalent of risk-based capital (RBC) for any BD, the CET1 capital equivalent of RBC is used as a floor for that BD.

In addition to tangible equity, we allocate equity to the BDs to support goodwill and intangible assets.

Furthermore, we allocate to the BDs attributed equity related to certain CET1 deduction items, such as compensation-related components and expected losses on the advanced internal ratings-based portfolio less provisions.

We attribute all remaining Basel III capital deduction items to Group Functions. These items include deferred tax assets (DTAs) recognized for tax loss carry-forwards, DTAs on temporary differences in excess of the threshold, accruals for shareholder returns, and unrealized gains / losses from cash flow hedges.

- **Refer to “Balance sheet and off-balance sheet” in this section for more information about movements in equity attributable to shareholders**

Average attributed equity

<i>USD bn</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Global Wealth Management	20.0	18.8	17.1
Personal & Corporate Banking	9.3	9.2	8.9
Asset Management	1.7	2.0	2.0
Investment Bank	13.0	13.0	12.6
Group Functions	13.5	16.3	17.4
<i>of which: deferred tax assets¹</i>	5.2	5.9	6.7
<i>of which: related to retained RWA and LRD²</i>	3.0	3.2	3.4
<i>of which: accruals for shareholder returns and others³</i>	5.4	7.2	7.2
Average equity attributed to business divisions and Group Functions	57.6	59.3	57.8

- 1 Includes average attributed equity related to the Basel III capital deduction items for deferred tax assets (deferred tax assets recognized for tax loss carry-forwards and deferred tax assets on temporary differences, excess over threshold), as well as retained risk-weighted assets (RWA) and leverage ratio denominator (LRD) related to deferred tax assets.
- 2 Excludes average attributed equity related to retained RWA and LRD related to deferred tax assets.
- 3 Includes attributed equity related to dividend accruals, unrealized gains / losses from cash flow hedges, and a balancing item for capital held in excess of the 12.5%-capital and 3.75%-leverage-ratio calibration thresholds for equity attribution.

Return on attributed equity^{1,2}

<i>in %</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Global Wealth Management	24.9	25.4	23.6
Personal & Corporate Banking	19.5	18.9	14.2
Asset Management	81.2	51.8	74.2
Investment Bank	14.6	20.3	19.7

- 1 Return on attributed equity for Group Functions is not shown, as it is not meaningful.
- 2 Refer to “Alternative performance measures” in the appendix to this report for the definition and calculation method.

Liquidity and funding management

We manage the structural risks of our balance sheet, including interest rate risk, structural foreign exchange risk and collateral risk, as well as liquidity and funding risk. This section provides information about liquidity and funding regulatory requirements, governance, management (including sources of liquidity and funding), contingency planning, and stress testing. The balances disclosed in this section represent year-end positions, unless indicated otherwise. Intra-period balances fluctuate in the ordinary course of business and may differ from year-end positions.

Strategy, objectives and governance

Audited | Our management of liquidity and funding has the overall objective of protecting our business franchises and prudently managing our internal and regulatory liquidity and funding requirements. We measure liquidity and funding risk using internal and regulatory models and metrics. We define and implement internal stress testing across different time horizons, scenarios and currencies to ensure we have sufficient liquidity and funding, while remaining compliant with regulatory requirements, primarily expressed through the liquidity coverage ratio (the LCR) and the net stable funding ratio (the NSFR). Our liquidity and funding strategy is proposed by Group Treasury and approved by the Group Asset and Liability Committee (the Group ALCO), which is a committee of the Group Executive Board (the GEB) that is overseen by the Risk Committee of the Board of Directors (the BoD).

Liquidity and funding limits and other indicators (including early-warning indicators) are set at Group and, where appropriate, at legal entity and business division levels, and are reviewed and reconfirmed at least once a year by the BoD, the GEB, the Group ALCO, the Group Chief Financial Officer, the Group Chief Risk Officer and the Group Treasurer, taking into consideration the Group's business strategy and risk appetite. Treasury Risk Control provides independent oversight over liquidity and funding risk. ▲

- **Refer to the “Corporate governance” and “Risk management and control” sections of this report for more information**

Group Treasury monitors and oversees the implementation and execution of our liquidity and funding strategy and manages liquidity and funding risk within the limits and other relevant indicators, thereby adhering to the internal risk appetite and regulatory requirements. This includes close control of both our cash and collateral, including our high-quality liquid assets (HQLA), and centralizes the Group's access to wholesale cash markets in Group Treasury. To complement our business-as-usual management, Group Treasury maintains a Contingency Funding Plan and contributes to plans for recovery and resolution to define procedures throughout the crisis continuum. Group Treasury reports on the Group's liquidity and funding status and position, including concentration risk, at least monthly, to the Group ALCO and the Risk Committee of the BoD.

In July 2022, the revision of the Swiss Liquidity Ordinance became effective. Further supervisory guidance from FINMA is expected to be communicated in the autumn of 2023.

Liquidity and funding stress testing

Audited | Our liquidity and funding risk management aims to ensure that the firm has sufficient liquidity and funding to survive a severe idiosyncratic and market-wide liquidity and funding stress event without government support, allowing for discrete management actions.

Group Treasury maintains a diversified, high-quality pool of unencumbered liquid assets under Treasury control. The liquid asset portfolio is managed dynamically, so as to operate at all times within the internal risk appetite and other relevant Group and subsidiary liquidity and funding requirements. ▲

Our liquidity and funding stress testing covers two main stress scenarios: a combined (market and idiosyncratic) scenario and a structural market-wide scenario. We continuously refine stress-testing assumptions.

- **Refer to “Risk measurement” in the “Risk management and control” section of this report for more information about stress testing**

Combined (market and idiosyncratic) scenario

In this scenario, UBS faces the consequences of both a severely deteriorated macroeconomic and financial market environment and a UBS-specific event, resulting in an acute loss of liquidity over a relatively short period of time. This scenario represents severe yet plausible events encompassing both market-wide and idiosyncratic elements, in which, however, franchise client relationships are materially maintained.

The objective of this stress test is to ensure that UBS keeps a cumulative liquidity surplus on each day in the three-month stress horizon. The liquidity gap is assessed by modeling the stressed liquidity value of the liquidity buffer and stressed liquidity inflows and outflows under the scenario.

Structural market-wide scenario

In this scenario, UBS is subject to a significant deterioration of macroeconomic and financial market conditions globally, resulting in a requirement for long-term funding to survive the liquidity drain and support the franchise of the business. Macroeconomic shocks result in deteriorated financial market conditions over the scenario horizon of one year. UBS is assumed to be affected equally relative to other global financial institutions.

The objective of this stress test is to ensure that UBS maintains a positive cumulative behavioral liquidity gap across the 3-month, 6-month, 9-month and 12-month tenors. The liquidity gap is assessed by modeling the stressed liquidity value of the liquidity buffer, and stressed liquidity inflows and outflows under the scenario. In addition, the liquidity stress-testing metric above 12 months aims to ensure that UBS has sufficient long-term (contractual and behavioral) funding supply to support its long-term funding consumption.

Funding management

Audited | Group Treasury monitors our funding position, including concentration risk, aiming to ensure that we maintain a well-balanced and diversified liability structure. Our funding management team looks to create the optimal liability structure to finance our businesses in a reliable and cost-efficient manner. Our funding activities are planned by analyzing the overall liquidity and funding requirements, taking into account the amount of stable funding that would be needed to support ongoing business activities through periods of difficult market conditions. ▲

The funding strategy of UBS Group AG is set annually in the Funding Plan and is reviewed on an ongoing basis. The Funding Plan is developed by Group Treasury and approved by the Group ALCO.

- **Refer to “Balance sheet and off-balance sheet” in this section for more information about the development of our short- and long-term debt during 2022**

Global Wealth Management and Personal & Corporate Banking provide significant, cost-efficient and stable sources of funding. These include deposits and debt issued through the Swiss central mortgage institutions, which use a portion of our portfolio of Swiss residential mortgages as collateral to generate long-term funding. In addition, we have several short-, medium- and long-term funding programs under which we issue senior unsecured debt and structured notes, as well as short-term debt. These programs enable UBS to source funding from institutional and private investors who are active in Europe, the US and Asia Pacific. Collectively, these broad product offerings and funding sources, together with the global scope of our business activities, support our funding stability.

Internal funding and funds transfer pricing

We use our global liquidity and funding framework to govern the liquidity management of all our branches and subsidiaries. Group Treasury meets internal demands for funding by channeling funds from entities generating surplus cash to those in need of financing, except in circumstances where transfer restrictions exist.

Funding costs and benefits are allocated to our business divisions according to our liquidity and funding risk management framework. Our internal funds transfer pricing system is designed to ensure we have the right mix of assets and liabilities in currencies and tenors.

Credit ratings

Credit ratings can affect the cost and availability of funding, especially from wholesale unsecured sources. Our credit ratings can also influence the performance of some of our businesses and the levels of client and counterparty confidence. Rating agencies take into account a range of factors when assessing creditworthiness and setting credit ratings. These include the company’s strategy, its business position and franchise value, stability and quality of earnings, capital adequacy, risk profile and management, liquidity management, diversification of funding sources, asset quality, and corporate governance. Credit ratings reflect the opinions of the rating agencies and can change at any time.

In evaluating our liquidity and funding requirements, we consider the potential effect of a reduction in our long-term credit ratings and a corresponding reduction in short-term ratings. If our credit ratings were to be downgraded, rating trigger clauses could result in an immediate cash settlement or the need to deliver additional collateral to counterparties from contractual obligations related to over-the-counter (OTC) derivative positions and other obligations. Based on our credit ratings as of 31 December 2022, in the event of a one-notch reduction in our long-term credit ratings, we would have been required to provide USD 0.1bn in cash or other collateral. In the event of a two-notch reduction, it would have been USD 0.3bn and for a three-notch downgrade USD 1.0bn. In the two- and three-notch scenarios the collateral requirements predominantly relate to OTC derivative positions.

There were no rating actions with regard to UBS Group AG’s or UBS AG’s solicited credit ratings in 2022.

- **Refer to “Liquidity and funding management are critical to UBS’s ongoing performance” in the “Risk factors” section of this report for more information**

Contingency Funding Plan

Audited | We maintain our Contingency Funding Plan as a preparation and action plan, aiming to ensure we hold sufficient liquidity to meet our payment obligations and raise funding during periods of liquidity stress. The plan specifies the processes, tools and responsibilities that we have available to effectively manage liquidity and funding through these periods. Our funding diversification and global scope help to protect our liquidity position in the event of a crisis. Our contingent funding sources include our HQLA portfolios, available and unutilized liquidity facilities at several major central banks, contingent reductions of trading portfolio assets, and other actions available to the management. ▲

Liquidity coverage ratio

The LCR measures the short-term resilience of a bank's liquidity profile by assessing whether sufficient HQLA are available to meet expected net cash outflows from a significant liquidity stress scenario, as defined by the relevant regulator.

For UBS, HQLA are low-risk unencumbered assets under the control of Group Treasury that are easily and immediately convertible into cash at little or no loss of value, in order to meet liquidity needs. Our HQLA predominantly consist of assets that qualify as Level 1 in the LCR framework, including cash, central bank reserves and government bonds. Group HQLA are held by UBS AG and its subsidiaries and may include amounts that are available to meet funding and collateral needs in certain jurisdictions but are not readily available for use by the Group as a whole. These limitations are typically the result of local regulatory requirements, including local LCR and large exposure requirements. Funds that are effectively restricted are excluded from the calculation of Group HQLA to the extent they exceed the outflow assumptions for the subsidiary that holds the relevant HQLA. On this basis, USD 34bn of assets were excluded from our daily average Group HQLA for the fourth quarter of 2022. Amounts held in excess of local liquidity requirements that are not subject to other restrictions are generally available for transfer within the Group.

Basel Committee on Banking Supervision (BCBS) standards require an LCR of at least 100%. In a period of financial stress, the Swiss Financial Market Supervisory Authority (FINMA) may allow banks to use their HQLA and let their LCR temporarily fall below the minimum threshold. We monitor the LCR in all significant currencies in order to manage any currency mismatches between HQLA and the net expected cash outflows in times of stress.

Our daily average LCR for the fourth quarter of 2022 was 163.7%, compared with 155.5% in the fourth quarter of 2021, remaining above the prudential requirement communicated by FINMA.

Average HQLA increased by USD 10.7bn to USD 238.6bn, mainly driven by lower funding consumption from the business divisions, partly offset by a reduction of short-term debt. Average net cash outflows decreased slightly, by USD 0.8bn, to USD 146.0bn. Lower average outflows from customer deposits were almost entirely offset by lower average inflows from loans and securities financing transactions, as well as higher average net cash outflows from derivatives.

- **Refer to the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more information about the LCR**
- **Refer to the “Significant regulated subsidiary and sub-group information” section of this report for more information about the LCR of UBS AG and UBS Switzerland AG**

Liquidity coverage ratio

<i>USD bn, except where indicated</i>	<u>Average 4Q22¹</u>	<u>Average 4Q21¹</u>
High-quality liquid assets (HQLA)	238.6	227.9
Total net cash outflows ²	146.0	146.8
Liquidity coverage ratio (%)³	163.7	155.5

1 Calculated based on an average of 63 data points in the fourth quarter of 2022 and 66 data points in the fourth quarter of 2021.

2 Represents the net cash outflows expected over a stress period of 30 calendar days.

3 Calculated after the application of haircuts and inflow and outflow rates, as well as, where applicable, caps on Level 2 assets and cash inflows.

Net stable funding ratio

The NSFR framework is intended to limit overreliance on short-term wholesale funding, to encourage a better assessment of funding risk across all on- and off-balance sheet items and to promote funding stability. The NSFR has two components: available stable funding (ASF), as numerator, and required stable funding (RSF), as denominator. ASF is the portion of capital and liabilities expected to be available over the period of one year. RSF is a measure of the stable funding requirement of assets based on their maturity, encumbrance and other characteristics, as well as the potential for contingent calls on funding liquidity from off-balance sheet exposures. The BCBS NSFR regulatory framework requires a ratio of at least 100%.

As of 31 December 2022, the NSFR increased 1.3 percentage points to 119.8%, remaining above the prudential requirement communicated by FINMA. RSF decreased by USD 19.6bn to USD 468.5bn, mainly due to lower trading assets and receivables from securities financing transactions, partly offset by higher derivative balances. ASF decreased by USD 17.0bn to USD 561.4bn, mainly driven by lower debt securities issued and customer deposits.

- **Refer to the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more information about the NSFR**
- **Refer to the “Significant regulated subsidiary and sub-group information” section of this report for more information about the NSFR of UBS AG and UBS Switzerland AG**

Net stable funding ratio

<i>USD bn, except where indicated</i>	<u>31.12.22</u>	<u>31.12.21</u>
---------------------------------------	-----------------	-----------------

Available stable funding (ASF)	561.4	578.4
Required stable funding (RSF)	468.5	488.1
Net stable funding ratio (%)	119.8	118.5

Balance sheet and off-balance sheet

Balance sheet

The balances disclosed in this section represent year-end positions, unless indicated otherwise. Intra-period balances fluctuate in the ordinary course of business and may differ from year-end positions. Refer to the “Consolidated financial statements” section of this report for more information about the development of our financial position.

Balance sheet assets

As of 31 December 2022, balance sheet assets totaled USD 1,104.4bn, a decrease of USD 12.8bn compared with 31 December 2021, which included a decrease of approximately USD 22.7bn from currency effects.

Cash and balances at central banks decreased by USD 23.4bn, including currency effects of approximately USD 5.9bn. The net cash outflow was mainly due to shifts within the high-quality liquid asset (HQLA) portfolio from cash into securities, a reduction in short-term debt, decreases in customer deposits and outflows related to the share repurchase programs. These outflows were partly offset by inflows from roll-offs of securities financing transactions, decreases in trading assets, as well as lower lending.

Trading portfolio assets decreased by USD 22.9bn, mainly in our Financing and Derivatives & Solutions businesses in the Investment Bank, reflecting lower inventory held to hedge client positions and market-driven movements. Lending assets decreased by USD 11.2bn, mainly driven by currency effects of USD 6.4bn. The movement not related to currency effects was mainly in Global Wealth Management, reflecting decreases in Lombard loans in Asia Pacific, partly offset by higher mortgage loans in the Americas. Non-financial assets and financial assets for unit-linked investment contracts decreased by USD 8.7bn, predominantly in Asset Management, mainly due to market-driven decreases on investments related to unit-linked contracts, and in Global Wealth Management, due to the completion of the sale of our domestic wealth management business in Spain and the sale of UBS Swiss Financial Advisers AG in 2022. Securities financing transactions at amortized cost decreased by USD 7.2bn, mostly due to lower client activity levels in the Investment Bank as interest rates rose, as well as trade roll-offs in Group Treasury. Brokerage receivables decreased by USD 4.2bn in our Financing business, as increases in client lending were more than offset by netting effects against Brokerage payables.

These decreases were partly offset by a USD 36.4bn increase in Derivatives and cash collateral receivables on derivative instruments. The increases were mainly in our Derivatives & Solutions and Financing businesses, predominantly reflecting increases in foreign exchange contracts, where the contracts in place at the end of 2022 had higher fair values compared with the contracts in place at the end of 2021, as well as increases in interest rate contracts, mainly due to higher trading volumes and market-driven movements as interest rates increased during the year. These increases were partly offset by market-driven decreases in Non-core and Legacy Portfolio on long-dated interest rate contracts due to the aforementioned increases in interest rates.

Other financial assets measured at amortized cost and fair value increased by USD 28.4bn, largely reflecting shifts within the HQLA portfolio from cash into securities within Group Treasury due to the widening of spreads. Included within Other financial assets measured at amortized cost and fair value is a portfolio of financial assets reclassified effective from 1 April 2022 from Financial assets measured at fair value through other comprehensive income to Other financial assets measured at amortized cost, in line with the principles in IFRS 9, *Financial Instruments*.

- Refer to “Note 1 Summary of material accounting policies” in the “Consolidated financial statements” section of this report for more information about the reclassification of a portfolio of financial assets

Assets

<i>USD bn</i>	As of		% change from
	31.12.22	31.12.21	31.12.21
Cash and balances at central banks	169.4	192.8	(12)
Lending ¹	402.0	413.2	(3)
Securities financing transactions at amortized cost	67.8	75.0	(10)
Trading portfolio ²	107.9	130.8	(18)
Derivatives and cash collateral receivables on derivative instruments	185.1	148.7	25
Brokerage receivables	17.6	21.8	(20)
Other financial assets measured at amortized cost and fair value ³	102.2	73.8	38
Non-financial assets and financial assets for unit-linked investment contracts	52.3	61.0	(14)
Total assets	1,104.4	1,117.2	(1)

1 Consists of loans and advances to customers and banks.

2 Consists of financial assets at fair value held for trading.

3 Consists of financial assets at fair value not held for trading, financial assets measured at fair value through other comprehensive income and other financial assets measured at amortized cost, but excludes financial assets for unit-linked investment contracts.

Asset encumbrance

The table below provides a breakdown of on- and off-balance sheet assets between encumbered assets, unencumbered assets and assets that cannot be pledged as collateral.

Assets are presented as Encumbered if they have been pledged as collateral against an existing liability or are otherwise not available for securing additional funding. Included within the latter category are assets protected under client asset segregation rules, financial assets for unit-linked investment contracts, and assets held in certain jurisdictions to comply with explicit minimum local asset maintenance requirements.

- **Refer to “Note 22 Restricted and transferred financial assets” in the “Consolidated financial statements” section of this report for more information**

Assets that cannot be pledged as collateral represents assets that are not encumbered but by their nature are not considered available to secure funding or meet collateral needs.

All other assets are presented as Unencumbered. Assets that are considered to be readily available to secure funding on a Group and / or legal entity level are shown separately and consist of cash and securities readily realizable in the normal course of business. These include our HQLA and unencumbered positions in our trading portfolio. Unencumbered assets that are considered to be available to secure funding on a legal entity level may be subject to restrictions that limit the total amount of assets available to the Group as a whole. Other unencumbered assets, which are not considered to be readily available to secure funding on a Group and / or legal entity level, primarily consist of loans and advances to banks and customers.

Asset encumbrance as of 31 December 2022

	Encumbered		Unencumbered		Assets that cannot be pledged as collateral	Total Group
	Assets pledged as collateral	Assets otherwise restricted and not available to secure funding	Cash and securities available to secure funding on a Group and / or legal entity level	Other realizable assets		
<i>USD bn</i>						
Balance sheet						
Cash and balances at central banks		0.0	169.4			169.4
Loans and advances to banks		3.7		11.1		14.8
Receivables from securities financing transactions					67.8	67.8
Cash collateral receivables on derivative instruments			5.2		29.9	35.0
Loans and advances to customers	15.2	1.1		370.2	0.7	387.2
Other financial assets measured at amortized cost	3.4	0.8	40.4	1.3	7.3	53.3
Total financial assets measured at amortized cost	18.6	10.8	209.8	382.6	105.7	727.6
Financial assets at fair value held for trading	57.4 ¹	0.2	48.5	1.8		107.9
Derivative financial instruments	0.0				150.1	150.1
Brokerage receivables					17.6	17.6
Financial assets at fair value not held for trading	1.5 ¹	14.5	30.1	6.0	7.7	59.8
Total financial assets measured at fair value through profit or loss	58.9	14.6	78.7	7.8	175.4	335.3
Financial assets measured at fair value through other comprehensive income		1.8	0.4			2.2
Non-financial assets		0.0	4.5	13.4	21.4	39.2
Total balance sheet assets as of 31 December 2022	77.5	27.3	293.4	403.7	302.5	1,104.4
Total balance sheet assets as of 31 December 2021	85.1	33.5	307.5	415.4	275.7	1,117.2
Off-balance sheet						
Fair value of securities accepted as collateral as of 31 December 2022	331.8	5.6	93.8	2.8		434.0
Fair value of securities accepted as collateral as of 31 December 2021	367.4	16.3	106.5	7.6		497.8
Total balance sheet assets and off-balance sheet securities accepted as collateral as of 31 December 2022	409.3	33.0	387.1	406.5	302.5	1,538.4
<i>of which: high-quality liquid assets</i>			238.6			
Total balance sheet assets and off-balance sheet securities accepted as collateral as of 31 December 2021	452.5	49.8	414.0	423.0	275.7	1,615.0
<i>of which: high-quality liquid assets</i>			232.8			

- 1 Includes assets pledged as collateral that may be sold or repledged by counterparties. The respective amounts are disclosed in “Note 22 Restricted financial assets” in the “Consolidated financial statements” section of this report.

Assets available to secure funding on a Group and / or legal entity level by currency

<i>USD bn</i>	31.12.22	31.12.21
Swiss franc	120.0	111.4
US dollar	156.2	174.7
Euro	40.3	46.6
Other	70.6	81.2
Total	387.1	414.0

Balance sheet liabilities

Total liabilities as of 31 December 2022 were USD 1,047.1bn, a decrease of USD 9.1bn compared with 31 December 2021, which included a decrease of approximately USD 20.4bn from currency effects.

Customer deposits decreased by USD 16.9bn, including an USD 8.3bn decrease from currency effects. The decrease not related to currency effects was USD 14.4bn in Global Wealth Management, mostly in the Americas, partly offset by a USD 5.8bn increase in Personal & Corporate Banking. In addition, increases in interest rates during the year resulted in significant shifts from demand deposits to time deposits. As of 31 December 2022, our ratio of customer deposits to outstanding loans and advances to customers was unchanged at 136%. Short-term borrowings decreased by USD 14.9bn, mainly due to maturities of commercial paper and certificates of deposit in Group Treasury.

Debt issued designated at fair value and long-term debt issued measured at amortized cost decreased by USD 11.3bn. Long-term debt issued measured at amortized cost decreased by USD 11.1bn, driven by hedge accounting and foreign currency effects, as well as net redemptions. Debt issued designated at fair value remained broadly unchanged, while net new issuances mainly of fixed-rate and equity-linked contracts were offset by market-driven movements on equity-linked contracts.

During 2022, the redemption of a covered bond of USD 1.4bn and net redemptions of subordinated debt instruments of USD 1.3bn were partly offset by USD 0.8bn of net new issuances of senior unsecured debt, including TLAC-eligible benchmark instruments. In December 2022, we announced our intention to call one loss-absorbing tier 1 capital instrument of USD 2.0bn, which was redeemed in January 2023. As of 31 December 2022, UBS is already compliant with its 2023 going and gone concern capital requirements and expects to act rationally and strategically with respect to the refinancing of any callable capital instruments and any potential incremental issuances.

- **Refer to “UBS Group AG consolidated capital instruments and TLAC-eligible senior unsecured debt,” available under “Bondholder information” at ubs.com/investors, for more information**

Non-financial liabilities and financial liabilities related to unit-linked investment contracts decreased by USD 10.6bn, mainly reflecting market-driven decreases in unit-linked investment contracts in line with the asset side and in Global Wealth Management due to the completion of the sale of our domestic wealth management business in Spain and the sale of UBS Swiss Financial Advisers AG in 2022.

- **Refer to “Note 29 Changes in organization and acquisitions and disposals of subsidiaries and businesses” in the “Consolidated financial statements” section of this report for more information about the sales of these businesses**

These decreases were partly offset by a USD 38.2bn increase in Derivatives and cash collateral payables on derivative instruments, in line with the movement on the asset side. Other financial liabilities measured at amortized cost and fair value increased by USD 9.0bn, mainly in Group Treasury, due to lower netting effects on securities financing transactions measured at fair value.

Equity

Equity attributable to shareholders decreased by USD 3,786m to USD 56,876m as of 31 December 2022.

This decrease was mainly driven by net treasury share activity that decreased equity by USD 5,999m. This was mainly due to share repurchases with an acquisition cost of USD 3,966m under our 2022 share repurchase program, repurchases of USD 1,637m under our 2021 program and purchases of USD 207m from the market to hedge our share delivery obligations related to employee share-based compensation awards. In addition, distributions to shareholders reduced equity by USD 1,668m, reflecting a dividend payment of USD 0.50 per share.

These decreases were partly offset by total comprehensive income attributable to shareholders of positive USD 3,149m, reflecting net profit of USD 7,630m and negative other comprehensive income (OCI) of USD 4,481m. OCI mainly included negative cash flow hedge OCI of USD 4,793m, negative OCI related to foreign currency translation of USD 525m and positive OCI related to own credit on financial liabilities designated at fair value of USD 796m. In addition, deferred share-based compensation awards of USD 716m were expensed in the income statement, increasing share premium.

In the second quarter of 2022, we canceled 177,787,273 shares purchased under our 2021 share repurchase program from its inception in 2021 until 18 February 2022, as approved by shareholders at the 2022 Annual General Meeting. The cancellation of shares resulted in reclassifications within equity but had no net effect on our total equity attributable to shareholders.

- **Refer to the “Group performance” and “Consolidated financial statements” sections of this report for more information about OCI**
- **Refer to the “Reconciliation of IFRS equity to Swiss SRB common equity tier 1 capital” table in this section for more information about the effects of OCI on common equity tier 1 capital**
- **Refer to “UBS shares” in this section for more information about our share repurchase programs**

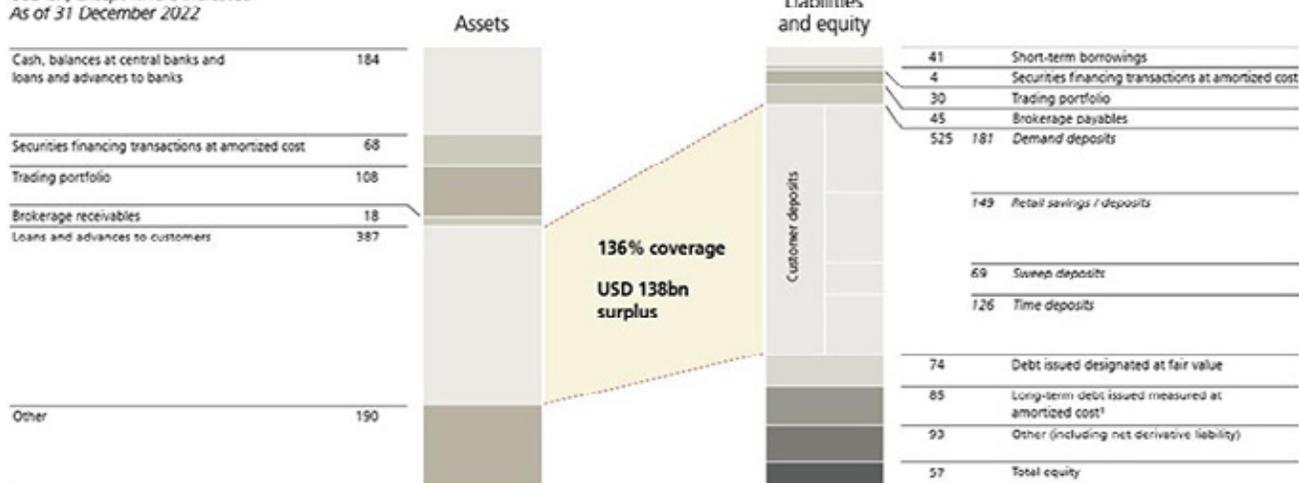
Liabilities and equity

USD bn	As of		% change from 31.12.21
	31.12.22	31.12.21	
Short-term borrowings ¹	41.3	56.2	(27)
Securities financing transactions at amortized cost	4.2	5.5	(24)
Customer deposits	525.1	542.0	(3)
Debt issued designated at fair value and long-term debt issued measured at amortized cost ²	158.6	169.9	(7)
Trading portfolio ³	29.5	31.7	(7)
Derivatives and cash collateral payables on derivative instruments	191.3	153.1	25
Brokerage payables	45.1	44.0	2
Other financial liabilities measured at amortized cost and fair value ⁴	26.6	17.6	51
Non-financial liabilities and financial liabilities related to unit-linked investment contracts	25.5	36.1	(29)
Total liabilities	1,047.1	1,056.2	(1)
Share capital	0.3	0.3	(6)
Share premium	13.5	15.9	(15)
Treasury shares	(6.9)	(4.7)	47
Retained earnings	50.0	43.9	14
Other comprehensive income ⁵	(0.1)	5.2	(102)
Total equity attributable to shareholders	56.9	60.7	(6)
Equity attributable to non-controlling interests	0.3	0.3	1
Total equity	57.2	61.0	(6)
Total liabilities and equity	1,104.4	1,117.2	(1)

- 1 Consists of short-term debt issued measured at amortized cost and amounts due to banks.
- 2 The classification of debt issued measured at amortized cost into short-term and long-term is based on original contractual maturity and therefore long-term debt also includes debt with a remaining time to maturity of less than one year. This classification does not consider any early redemption features.
- 3 Consists of financial liabilities at fair value held for trading.
- 4 Consists of other financial liabilities measured at amortized cost and other financial liabilities designated at fair value, but excludes financial liabilities related to unit-linked investment contracts.
- 5 Excludes other comprehensive income related to defined benefit plans and own credit, which is recorded directly in Retained earnings.

Asset funding

USD bn, except where indicated
As of 31 December 2022



¹ The classification of debt issued measured at amortized cost into short- and long-term is based on original contractual maturity and therefore long-term debt also includes debt with a remaining time to maturity of less than one year. This classification does not consider any early redemption features.

Liabilities by product and currency

USD bn	All currencies		USD equivalent					
			of which: USD		of which: CHF		of which: EUR	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Short-term borrowings	41.3	56.2	23.3	32.2	3.8	4.3	4.4	6.2
<i>of which: amounts due to banks</i>	11.6	13.1	4.2	3.4	3.7	4.2	1.1	0.8
<i>of which: short-term debt issued¹</i>	29.7	43.1	19.0	28.8	0.1	0.2	3.3	5.3
Securities financing transactions at amortized cost	4.2	5.5	3.6	5.2	0.0	0.0	0.2	0.2
Customer deposits	525.1	542.0	226.6	252.1	198.5	189.7	53.6	54.8
<i>of which: demand deposits</i>	180.8	246.4	47.1	92.3	71.4	70.9	37.3	46.3
<i>of which: retail savings / deposits</i>	149.3	133.3	24.6	11.7	119.0	116.0	5.6	5.5
<i>of which: sweep deposits</i>	69.2	113.9	69.2	113.9	0.0	0.0	0.0	0.0
<i>of which: time deposits</i>	125.7	48.4	85.7	34.2	8.1	2.8	10.6	3.0
Debt issued designated at fair value and long-term debt issued measured at amortized cost ²	158.6	169.9	98.4	100.3	16.9	18.4	29.6	35.1
Trading portfolio ³	29.5	31.7	12.1	13.7	0.8	0.9	8.1	6.3
Derivatives and cash collateral payables on derivative instruments	191.3	153.1	160.4	126.3	3.8	2.1	15.8	15.2
Brokerage payables	45.1	44.0	32.3	32.8	0.4	0.4	3.2	2.8
Other financial liabilities measured at amortized cost and fair value ⁴	26.6	17.6	16.3	9.3	1.7	1.5	4.8	3.7
Non-financial liabilities and financial liabilities related to unit-linked investment contracts	25.5	36.1	4.7	6.0	1.5	2.4	2.9	3.4
Total liabilities	1,047.1	1,056.2	577.7	577.8	227.6	219.7	122.6	127.8

- Short-term debt issued consists of certificates of deposit, commercial paper, acceptances and promissory notes, and other money market paper.
- The classification of debt issued measured at amortized cost into short-term and long-term is based on original contractual maturity and therefore long-term debt also includes debt with a remaining time to maturity of less than one year. This classification does not consider any early redemption features.
- Consists of financial liabilities at fair value held for trading.
- Consists of other financial liabilities measured at amortized cost and other financial liabilities designated at fair value, but excludes financial liabilities related to unit-linked investment contracts.

Off-balance sheet

In the normal course of business, we enter into transactions where, pursuant to IFRS, the maximum contractual exposure may not be recognized in whole or in part on our balance sheet. These transactions include derivative instruments, guarantees, loan commitments and similar arrangements.

When we incur an obligation or become entitled to an asset through these arrangements, we recognize them on the balance sheet. It should be noted that in certain instances the amount recognized on the balance sheet does not represent the full gain or loss potential inherent in such arrangements.

The following paragraphs provide more information about certain off-balance sheet arrangements. Additional off-balance sheet information is primarily provided in Notes 9, 10, 17, 19, 20h, 22 and 28 in the “Consolidated financial statements” section of this report, and in the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors.

Guarantees, loan commitments and similar arrangements

In the normal course of business, we issue various forms of guarantees, commitments to extend credit, standby and other letters of credit to support our clients, forward starting transactions, note issuance facilities, and revolving underwriting facilities. With the exception of related premiums, generally these guarantees and similar obligations are kept as off-balance sheet items, unless a provision to cover probable losses or expected credit losses is required.

Guarantees represent irrevocable assurances that, subject to the satisfying of certain conditions, we will make payments if our clients fail to fulfill their obligations to third parties. As of 31 December 2022, the net exposure (i.e., gross values less sub-participations) from guarantees and similar instruments was USD 20.6bn, compared with USD 18.9bn as of 31 December 2021. The increase of USD 1.7bn reflected higher guarantees issued to corporate clients in Group Treasury. Fee income from issuing guarantees compared with total net fee and commission income is insignificant for both 2022 and 2021.

We also enter into commitments to extend credit in the form of credit lines available to secure the liquidity needs of clients. The majority of loan commitments range in maturity from one month to two years. Committed unconditionally revocable credit lines are generally open-ended. During 2022, loan commitments and committed unconditionally revocable credit lines remained broadly stable. Forward starting reverse repurchase agreements increased by USD 2.4bn and forward starting repurchase agreements increased by USD 0.9bn, both predominantly in Group Treasury.

Off-balance sheet

USD bn	As of		% change from 31.12.21
	31.12.22	31.12.21	
Guarantees ¹	20.6	18.9	9
Loan commitments ^{1,2}	40.0	39.5	1
Committed unconditionally revocable credit lines	41.4	40.8	1
Forward starting reverse repurchase agreements ²	3.8	1.4	163
Forward starting repurchase agreements ²	1.9	1.0	80

1 Guarantees and Loan commitments are shown net of sub-participations.

2 The exposures related to loan commitments, forward starting repurchase and reverse repurchase agreements measured at fair value through profit or loss are not included in this table but are reflected as notional amounts in “Note 10 Derivative instruments” in the “Consolidated financial statements” section of this report.

If customers fail to meet their obligations, our maximum exposure to credit risk is generally the contractual amount of these instruments. The risk is similar to the risk involved in extending loan facilities and is subject to the same risk management and control framework. In 2022, we recognized net credit loss releases of USD 3m related to loan commitments, guarantees and other credit facilities in the scope of expected credit loss measurement, compared with net credit loss releases of USD 46m in 2021. Provisions recognized for guarantees, loan commitments and other credit facilities in the scope of expected credit loss measurement were USD 201m as of 31 December 2022, compared with USD 196m as of 31 December 2021.

- **Refer to “Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement” and “Note 19 Expected credit loss measurement” in the “Consolidated financial statements” section of this report for more information about provisions for expected credit losses**

For certain obligations, we enter into partial sub-participations to mitigate various risks from guarantees and loan commitments. A sub-participation is an agreement by another party to take a share of the loss in the event that the obligation is not fulfilled by the obligor and, where applicable, to fund a part of the credit facility. We retain the contractual relationship with the obligor, and the sub-participant has only an indirect relationship. Generally, we only enter into sub-participation agreements with banks to which we ascribe a credit rating equal to or better than that of the obligor.

We also provide representations, warranties and indemnifications to third parties in the normal course of business.

Support provided to non-consolidated investment funds

In 2022, the Group did not provide material support, financial or otherwise, to unconsolidated investment funds when the Group was not contractually obligated to do so, nor does it have an intention to do so.

Clearing house and exchange memberships

We are a member of numerous securities and derivative exchanges and clearing houses. In connection with some of these memberships, we may be required to pay a share of the financial obligations of another member who defaults, or we may be otherwise exposed to additional financial obligations. While the membership rules vary, obligations generally would arise only if the exchange or clearing house had exhausted its resources. We consider the probability of a material loss due to such obligations to be remote.

Deposit insurance

Swiss banking law and the deposit insurance system require Swiss banks and securities dealers to jointly guarantee an amount of up to CHF 6bn for privileged client deposits in the event that a Swiss bank or securities dealer becomes insolvent. As of 31 December 2022, FINMA estimates our share in the deposit insurance system to be CHF 0.9bn. This represents a contingent payment obligation and exposes us to additional risk. As of 31 December 2022, we considered the probability of a material loss from our obligations to be remote.

UBS is also subject to, or is a member of, other deposit protection schemes in other countries. However, no contingent payment obligation existed as of 31 December 2022 from any other material scheme.

Material cash requirements

The Group’s material cash requirements as of 31 December 2022 are represented by the residual contractual maturities for non-derivative and non-trading financial liabilities included in the table presented in “Note 23b Maturity analysis of financial liabilities on an undiscounted basis” in the “Consolidated financial statements” section of this report. Included in the table are debt issued designated at fair value (USD 83.4bn) and long-term debt issued measured at amortized cost (USD 103.7bn). The amounts represent estimated future interest and principal payments on an undiscounted basis.

In the normal course of business, we also issue or enter into various forms of guarantees, loan commitments and other similar arrangements that may result in an outflow of cash in the future. The maturity profile of these obligations, which are presented off-balance sheet, are included in “Note 23b Maturity analysis of financial liabilities on an undiscounted basis” in the “Consolidated financial statements” section of this report.

- Refer to “Guarantees, loan commitments and similar arrangements” in this section for more information

Cash flows

As a global financial institution, our cash flows are complex and often may bear little relation to our net earnings and net assets. Consequently, we believe that a traditional cash flow analysis is less meaningful when evaluating our liquidity position than the liquidity, funding and capital management frameworks and measures described elsewhere in this section.

- **Refer to the “Liquidity and funding management” section of this report for more information**

Cash and cash equivalents

As of 31 December 2022, cash and cash equivalents totaled USD 195.3bn, a decrease of USD 12.6bn compared with 31 December 2021, driven by net cash outflows from investing and financing activities, as well as negative foreign exchange effects, largely reflecting appreciation of the US dollar against the yen, euro and Swiss franc in 2022. These effects were partly offset by net cash inflows from operating activities.

Operating activities

Net cash inflows from operating activities were USD 14.6bn in 2022, compared with USD 31.4bn in 2021. The net operating cash flow, before changes in operating assets and liabilities and income taxes paid, was an outflow of USD 2.0bn. Changes in operating assets and liabilities resulted in net cash inflows of USD 16.6bn, mainly driven by net inflows of USD 8.0bn from financial assets and liabilities at fair value held for trading and derivative financial instruments, USD 6.0bn from brokerage receivables and payables, USD 5.7bn from financial assets and liabilities at fair value not held for trading and other financial assets and liabilities, as well as USD 4.4bn from securities financing transactions at amortized cost. These inflows were partly offset by a net outflow from loans and advances to customers and customer deposits of USD 5.2bn and income tax paid of USD 1.6bn.

Investing activities

Investing activities resulted in a net cash outflow of USD 12.4bn in 2022, compared with USD 2.1bn in 2021, primarily related to a cash outflow of USD 12.0bn from net purchases of debt securities measured at amortized cost.

Financing activities

Financing activities resulted in a net cash outflow of USD 9.1bn in 2022, compared with an inflow of USD 10.3bn in 2021, mainly due to net repayment of short-term debt of USD 12.2bn, net cash used to repurchase treasury shares of USD 6.0bn and a dividend distribution to shareholders of USD 1.7bn. This outflow was partly offset by net issuance proceeds of USD 11.4bn from debt designated at fair value and long-term debt measured at amortized cost.

- **Refer to “Primary financial statements and share information” in the “Consolidated financial statements” section of this report for more information about cash flows**

Statement of cash flows (condensed)

<i>USD bn</i>	For the year ended	
	31.12.22	31.12.21
Net cash flow from / (used in) operating activities	14.6	31.4
Net cash flow from / (used in) investing activities	(12.4)	(2.1)
Net cash flow from / (used in) financing activities	(9.1)	10.3
Effects of exchange rate differences on cash and cash equivalents	(5.7)	(5.3)
Net increase / (decrease) in cash and cash equivalents	(12.6)	34.3
Cash and cash equivalents at the end of the year	195.3	207.9

Currency management

Strategy, objectives and governance

Group Treasury focuses on three main areas of currency risk management: (i) currency-matched funding and investment of non-US-dollar assets and liabilities; (ii) sell-down of foreign currency International Financial Reporting Standards profits and losses; and (iii) selective hedging of anticipated non-US-dollar profits and losses to further mitigate the effect of structural imbalances in the balance sheet. Group Treasury also manages structural currency composition at the consolidated Group level.

Currency-matched funding and investment of non-US-dollar assets and liabilities

For monetary balance sheet items and other investments, as far as is practical and efficient, we follow the principle of matching the currencies of our assets and liabilities for funding purposes. This avoids profits and losses arising from the translation of non-US-dollar assets and liabilities.

Net investment hedge accounting is applied to non-US-dollar core investments to balance the effect of foreign exchange movements on both common equity tier 1 (CET1) capital and the CET1 capital ratio.

- **Refer to “Note 1a Material accounting policies” and “Note 25 Hedge accounting” in the “Consolidated financial statements” section of this report for more information**
- **Refer to “Capital management” in this section for more information about our active management of sensitivity to currency movements and the effect thereof on our key ratios**

Sell-down of non-US-dollar reported profits and losses

Income statement items of foreign subsidiaries and branches of UBS AG with a functional currency other than the US dollar are translated into US dollars at average exchange rates. To reduce earnings volatility on the translation of previously recognized earnings in foreign currencies, Group Treasury centralizes the profits and losses (under IFRS) arising in UBS AG and its branches and sells or buys the profit or loss for US dollars on a monthly basis. Our foreign subsidiaries follow a similar monthly sell-down process into their own functional currencies. Retained earnings in foreign subsidiaries with a functional currency other than the US dollar are integrated and managed as part of our net investment hedge accounting program.

Hedging of anticipated non-US-dollar profits and losses

The Group Asset and Liability Committee may at any time instruct Group Treasury to execute hedges to protect anticipated future profits and losses in foreign currencies against possible adverse trends of foreign exchange rates. Although intended to hedge future earnings, these transactions are accounted for as open currency positions and subject to internal market risk limits for value-at-risk and stress loss limits.

Dividend distribution

UBS Group AG declares dividends in US dollars. Shareholders holding shares through the SIX Swiss Exchange (ISIN: CH0244767585) will receive dividends in Swiss francs, based on a published exchange rate calculated up to five decimal places, on the day prior to the ex-dividend date. Shareholders holding shares through DTC (ISIN: CH0244767585; CUSIP: H42097107) will be paid dividends in US dollars.

- **Refer to the “Standalone financial statements” section of this report for more information about the proposed dividend distribution of UBS Group AG**

UBS shares

UBS Group AG shares

Audited | As of 31 December 2022, IFRS equity attributable to shareholders amounted to USD 56,876m, represented by 3,524,635,722 shares issued. Shares issued decreased by 177,787,273 shares in 2022 as the shares acquired under the 2021 share repurchase program from its inception in 2021 until 18 February 2022 were canceled by means of a capital reduction, as approved by shareholders at the 2022 Annual General Meeting (the AGM).

Each share has a nominal value of CHF 0.10, carries one vote if entered into the share register as having the right to vote, and also entitles the holder to a proportionate share of distributed dividends. All shares are fully paid up. As the Articles of Association of UBS Group AG indicate, there are no other classes of shares and no preferential rights for shareholders. ▲

- **Refer to “Share information and earnings per share” in the “Consolidated financial statements” section of this report for more information about the planned conversion of our share capital nominal currency in 2023**
- **Refer to the “Corporate governance” section of this report for more information about UBS shares**

UBS Group share information

	As of or for the year ended		% change from 31.12.21
	31.12.22	31.12.21	
Shares issued	3,524,635,722	3,702,422,995	(5)
Treasury shares ¹	416,909,010	302,815,328	38
<i>of which: related to share repurchase program 2021</i>	62,548,000	152,596,273	(59)
<i>of which: related to share repurchase program 2022</i>	233,901,950		
Shares outstanding	3,107,726,712	3,399,607,667	(9)
Basic earnings per share (USD) ²	2.34	2.14	9
Basic earnings per share (CHF) ³	2.23	1.96	14
Diluted earnings per share (USD) ²	2.25	2.06	9
Diluted earnings per share (CHF) ³	2.14	1.88	14
Equity attributable to shareholders (USD m)	56,876	60,662	(6)
Less: goodwill and intangible assets (USD m)	6,267	6,378	(2)
Tangible equity attributable to shareholders (USD m)	50,609	54,283	(7)
Ordinary cash dividends per share (USD) ^{4,5}	0.55	0.50	10
Total book value per share (USD)	18.30	17.84	3
Tangible book value per share (USD)	16.28	15.97	2
Share price (USD) ⁶	18.61	18.01	3
Market capitalization (USD m)	57,848	61,230	(6)

- 1 Based on a settlement date view.
- 2 Refer to “Share information and earnings per share” in the “Consolidated financial statements” section of this report for more information.
- 3 Basic and diluted earnings per share in Swiss francs are calculated based on a translation of net profit / (loss) under our US dollar presentation currency.
- 4 Dividends and / or distributions out of the capital contribution reserve are normally approved and paid in the year subsequent to the reporting period.
- 5 Refer to “Statement of proposed appropriation of total profit and dividend distribution out of total profit and capital contribution reserve” in the “Standalone financial statements” section of this report for more information.
- 6 Represents the share price as listed on the SIX Swiss Exchange, translated to US dollars using the closing exchange rate as of the respective date.

Holding of UBS Group AG shares

Group Treasury holds UBS Group AG shares to hedge future share delivery obligations related to employee share-based compensation awards, and also holds shares purchased under share repurchase programs. As of 31 December 2022, we held a total of 416,909,010 treasury shares (31 December 2021: 302,815,328).

Our 2021 share repurchase program was concluded on 29 March 2022 with the purchase of an additional 87.7m shares in 2022 for an acquisition cost of USD 1,637m (CHF 1,516m). The 177.8m shares repurchased under this program from its inception until 18 February 2022 for a total acquisition cost of USD 3,022m (CHF 2,775m) were canceled by means of a capital reduction, as approved by shareholders at the 2022 AGM. We also intend to cancel the remaining shares purchased under the 2021 program, subject to shareholder approval at the 2023 AGM.

On 31 March 2022, we commenced a new, 2022 share repurchase program of up to USD 6bn. Shares acquired under this program totaled 233.9m as of 31 December 2022 for a total acquisition cost of USD 3,944m (CHF 3,808m) and are intended to be canceled by means of a capital reduction, pending approval by shareholders at a future AGM.

Looking ahead, we intend to commence a new, 2023 repurchase program of up to USD 6bn over two years and expect to execute more than USD 5bn of share repurchases under both the existing, 2022 repurchase program and the new program in 2023.

Treasury shares held to hedge our share delivery obligations related to employee share-based compensation awards totaled 119m shares as of 31 December 2022 (31 December 2021: 149m). Share delivery obligations related to employee share-based compensation awards totaled 178m shares as of 31 December 2022 (31 December 2021: 175m) and are calculated on the basis of undistributed notional share awards, taking applicable performance conditions into account. Treasury shares held are delivered to employees at exercise or vesting. As of 31 December 2022, up to 122m UBS Group AG shares (31 December 2021: 122m) could have been issued out of conditional capital to satisfy share delivery obligations of any future employee share option programs or similar awards.

The Investment Bank also holds a limited number of UBS Group AG shares, primarily in its capacity as a market-maker with regard to UBS Group AG shares and related derivatives, and to hedge certain issued structured debt instruments.

The table below outlines the market purchases of UBS Group AG shares by Group Treasury. It does not include the activities of the Investment Bank.

Treasury share purchases

Month of purchase ³	Number of shares	Average price in USD	Share repurchase programs ¹			Other treasury shares purchased ²	
			Remaining volume of 2021 share repurchase program in CHF m at month-end	Remaining volume of 2021 share repurchase program in USD m at month-end ⁴	Remaining volume of 2022 share repurchase program in USD m at month-end	Number of shares	Average price in USD
January 2022			1,706	1,843			
February 2022	38,231,000	20.05	999	1,089			
March 2022	51,928,000	17.68	190 ⁵	205 ⁵	5,952		
April 2022	29,420,000	18.14			5,418		
May 2022	31,670,000	17.65			4,859		
June 2022	32,124,500	16.78			4,320		
July 2022	32,152,000	15.83			3,811		
August 2022	18,284,450	16.41			3,511		
September 2022	14,114,500	15.23			3,296	12,510,000	16.52
October 2022	30,526,500	15.15			2,833		
November 2022	23,769,000	17.70			2,413		
December 2022	20,571,000	18.40			2,034		

- 1 In February 2021, UBS initiated a share repurchase program of up to CHF 4bn and this program was concluded on 29 March 2022. UBS has an active share repurchase program to buy back up to USD 6bn of its own shares over the two-year period started in March 2022. The share buybacks were transacted in Swiss francs on a separate trading line on the SIX Swiss Exchange.
- 2 This table excludes purchases for the purpose of hedging derivatives linked to UBS Group AG shares and for market-making in UBS Group AG shares. The table also excludes UBS Group AG shares purchased by post-employment benefit funds for UBS employees, which are managed by a board of UBS management and employee representatives in accordance with Swiss law. UBS's post-employment benefit funds purchased 1,243,164 UBS Group AG shares during the year and held 14,213,559 UBS Group AG shares as of 31 December 2022.
- 3 Based on the transaction date of the respective treasury share purchases.
- 4 The remaining volume of the 2021 share repurchase program in US dollars was calculated based on the remaining volume in Swiss francs and the respective month-end closing exchange rate.
- 5 The 2021 share repurchase program was concluded on 29 March 2022.

Trading volumes

<i>1,000 shares</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
SIX Swiss Exchange total	2,433,051	2,514,259	5,095,908
SIX Swiss Exchange daily average	9,579	9,899	20,222
New York Stock Exchange total	186,468	137,366	260,681
New York Stock Exchange daily average	743	545	1,030

Source: Reuters

Listing of UBS Group AG shares

UBS Group AG shares are listed on the SIX Swiss Exchange (SIX). They are also listed on the New York Stock Exchange (the NYSE) as global registered shares. As such, they can be traded and transferred across applicable borders, without the need for conversion, with identical shares traded on different stock exchanges in different currencies.

During 2022, the average daily trading volume of UBS Group AG shares was 9.6m shares on SIX and 0.7m shares on the NYSE. SIX is expected to remain the main venue for determining the movement in our share price, because of the high volume traded on this exchange.

During the hours in which both SIX and the NYSE are simultaneously open for trading, price differences between these exchanges are likely to be arbitrated away by professional market-makers. Accordingly, the share price will typically be similar between the two exchanges when considering the prevailing US dollar / Swiss franc exchange rate. When SIX is closed for trading, globally traded volumes will typically be lower. However, the specialist firm making a market in UBS Group AG shares on the NYSE is required to facilitate sufficient liquidity and maintain an orderly market in UBS Group AG shares throughout normal NYSE trading hours.

Ticker symbols UBS Group AG

Security identification codes

Trading exchange	SIX / NYSE	Bloomberg	Reuters	ISIN	CH0244767585
SIX Swiss Exchange	UBSG	UBSG SW	UBSG.S	Valoren	24 476 758
New York Stock Exchange	UBS	UBS UN	UBS.N	CUSIP	CINS H42097 10 7

Corporate governance and compensation

Management report

Audited information according to the Swiss law and applicable regulatory requirements and guidance

Disclosures provided are in line with the requirements of the Swiss Code of Obligations (tables containing such information are marked as “Audited” throughout this section), as well as other applicable regulations and guidance.

Corporate governance

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Corporate governance

UBS Group AG is subject to, and complies with, all relevant Swiss legal and regulatory requirements regarding corporate governance, including the SIX Swiss Exchange's Directive on Information relating to Corporate Governance (the SIX Swiss Exchange Corporate Governance Directive) and the standards established in the Swiss Code of Best Practice for Corporate Governance.

The revised Swiss Code of Obligations entered into force on 1 January 2023. The correspondingly amended Articles of Association of UBS Group AG (the AoA) will be submitted to the Annual General Meeting (the AGM) on 5 April 2023 for approval. The implementation of resulting amendments based on the revised Swiss Code of Obligations will be reflected in the Annual Report 2023.

As a foreign company with shares listed on the New York Stock Exchange (the NYSE), UBS Group AG also complies with all relevant corporate governance standards applicable to foreign private issuers.

The Organization Regulations of UBS Group AG, adopted by the Board of Directors (the BoD) based on Art. 716b of the Swiss Code of Obligations and Art. 25 and 27 of the AoA, constitute our primary corporate governance guidelines.

To the extent practicable, the governance structures of UBS Group AG and UBS AG are aligned. UBS AG complies with all relevant Swiss legal and regulatory corporate governance requirements. As a foreign private issuer with debt securities listed on the NYSE, UBS AG also complies with the relevant NYSE corporate governance standards. The discussion in this section refers to both UBS Group AG and UBS AG, unless specifically noted otherwise or unless the information discussed is relevant only to listed companies and therefore only applicable to UBS Group AG. This approach is in line with US Securities and Exchange Commission (SEC) regulations and NYSE standards.

- **Refer to the Articles of Association of UBS Group AG and of UBS AG, and to the Organization Regulations of UBS Group AG, available at ubs.com/governance and ubs.com/ubs-ag-governance, for more information**
- **The SIX Swiss Exchange Corporate Governance Directive is available at ser-ag.com/content/dam/serag/downloads/regulation/listing/directives/dcg-en.pdf, the Swiss Code of Best Practice for Corporate Governance at economiesuisse.ch/en/publications/swiss-code-best-practice-corporate-governance and the NYSE rules at nyseguide.srorules.com/listed-company-manual**

Differences from corporate governance standards relevant to US-listed companies

The NYSE standards on corporate governance require foreign private issuers to disclose any significant ways in which their corporate governance practices differ from those that have to be followed by domestic companies. The key differences are discussed below.

Responsibility of the Audit Committee regarding independent auditors

Our Audit Committee is responsible for the compensation, retention and oversight of independent auditors. It assesses the performance and qualifications of external auditors and submits proposals for appointment, reappointment or removal of independent auditors to the BoD. As required by the Swiss Code of Obligations, the BoD submits its proposals for a shareholder vote at the AGM. Under NYSE standards audit committees are responsible for appointing independent auditors.

Discussion of risk assessment and risk management policies by the Risk Committee

As per the Organization Regulations of UBS Group AG and UBS AG, the Risk Committee, instead of the Audit Committee, as per NYSE standards, oversees our risk principles and risk capacity on behalf of the BoD. The Risk Committee is responsible for monitoring our adherence to those risk principles and monitoring whether business divisions and control units maintain appropriate systems of risk management and control.

Supervision of the internal audit function

Although under NYSE standards only audit committees supervise internal audit functions, the Chairman of the BoD (the Chairman) and the Audit Committee share the supervisory responsibility and authority with respect to the internal audit function.

Responsibility of the Compensation Committee for performance evaluations of senior management of UBS Group AG

In line with Swiss law, our Compensation Committee, together with the BoD, proposes for shareholder approval at the AGM the maximum aggregate amount of compensation for the BoD, the maximum aggregate amount of fixed compensation for the Group Executive Board (the GEB) and the aggregate amount of variable compensation for the GEB. The members of the Compensation Committee are elected by the AGM. Under NYSE standards it is the responsibility of compensation committees to evaluate senior management's performance and to determine and approve, as a committee or together with the other independent directors, the compensation thereof.

Proxy statement reports of the Audit Committee and the Compensation Committee

NYSE standards require the aforementioned committees to submit their reports directly to shareholders. However, under Swiss law all reports to

shareholders, including those from the aforementioned committees, are provided to and approved by the BoD, which has ultimate responsibility to the shareholders.

Shareholder votes on equity compensation plans

NYSE standards require shareholder approval for the establishing of and material revisions to all equity compensation plans. However, as per Swiss law, the BoD approves compensation plans. Shareholder approval is only mandatory if equity-based compensation plans require an increase in capital. No shareholder approval is required if shares for such plans are purchased in the market.

- **Refer to “Board of Directors” in this section for more information about the BoD’s committees**
- **Refer to “Share capital structure” in this section for more information about UBS Group AG’s capital**

Group structure and shareholders

Operational Group structure

As of 31 December 2022, the operational structure of the Group is composed of the Global Wealth Management, Personal & Corporate Banking, Asset Management and Investment Bank business divisions, as well as Group Functions.

- **Refer to the “Our businesses” section of this report for more information about our business divisions and Group Functions**
- **Refer to “Financial and operating performance” and to “Note 2a Segment reporting” in the “Consolidated financial statements” section of this report for more information**
- **Refer to the “Our evolution” section of this report for more information**

Listed and non-listed companies belonging to the Group

The Group includes a number of consolidated entities, of which only UBS Group AG shares are listed.

UBS Group AG’s registered office is at Bahnhofstrasse 45, CH-8001 Zurich, Switzerland. UBS Group AG shares are listed on the SIX Swiss Exchange (ISIN: CH0244767585) and on the NYSE (CUSIP: H42097107).

- **Refer to “UBS shares” in the “Capital, liquidity and funding, and balance sheet” section of this report for information about UBS Group AG’s market capitalization and shares held by Group entities**
- **Refer to “Note 28 Interests in subsidiaries and other entities” in the “Consolidated financial statements” section of this report for more information about the significant subsidiaries of the Group**

Significant shareholders

General rules

Under the Swiss Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading of 19 June 2015 (the FMIA), anyone directly, indirectly or acting in concert with third parties holding shares in a company listed in Switzerland or holding derivative rights related to shares in such a company directly, indirectly or in concert with third parties must notify the company and the SIX Swiss Exchange (SIX) if the holding reaches, falls below or exceeds one of the following percentage thresholds: 3, 5, 10, 15, 20, 25, 33 $\frac{1}{3}$, 50 or 66 $\frac{2}{3}$ % of voting rights, regardless of whether or not such rights may be exercised. Nominee companies that cannot autonomously decide how voting rights are exercised are not required to notify the company and SIX if they reach, exceed or fall below the aforementioned thresholds.

Pursuant to the Swiss Code of Obligations, we disclose in “Note 24 Significant shareholders” to the UBS Group AG standalone financial statements the identity of any shareholder with a holding of more than 5% of the total share capital of UBS Group AG.

Shareholders subject to FMIA disclosure notifications

According to the mandatory FMIA disclosure notifications filed with UBS Group AG and SIX, as of 31 December 2022, the following entities held more than 3% of the total share capital of UBS Group AG: BlackRock Inc., New York, which disclosed a holding of 5.23% on 29 June 2022; Dodge & Cox International Stock Fund, San Francisco, which disclosed a holding of 3.02% on 28 January 2022; Massachusetts Financial Services Company, Boston, which disclosed a holding of 3.01% on 25 June 2021; Artisan Partners Limited Partnership, Milwaukee, which disclosed a holding of 3.15% on 18 November 2020; and Norges Bank, Oslo, which disclosed a holding of 3.01% on 25 July 2019.

As registration in the UBS share register is optional, the aforementioned shareholders that crossed the indicated percentage thresholds and were required to notify their holding to UBS and SIX do not necessarily appear in the table below, as such table only discloses registered shareholders.

In accordance with the FMIA, the aforementioned holdings are calculated in relation to the total share capital of UBS Group AG reflected in the AoA at the time of the respective disclosure notification.

Information on disclosures under the FMIA is available at ser-ag.com/en/resources/notifications-market-participants/significant-shareholders.html.

Shareholders registered in the UBS share register with 3% or more of the share capital of UBS Group AG

As a supplement to the mandatory disclosure requirements according to the SIX Swiss Exchange Corporate Governance Directive, we disclose in the table below the shareholders (acting in their own name or in their capacity as nominees for other investors or beneficial owners) that were registered in the UBS share register with 3% or more of the total share capital of UBS Group AG as of 31 December 2022.

- **Refer to “Shareholders’ participation rights” in this section for more information about voting rights, restrictions and representation**

Audited |

Shareholders registered in the UBS share register with 3% or more of the total share capital¹

<i>% of share capital</i>	31.12.22	31.12.21	31.12.20
Chase Nominees Ltd., London ²	8.60	8.89	10.39
DTC (Cede & Co.), New York ^{2,3}	7.12	5.78	4.99
Nortrust Nominees Ltd., London ²	4.33	4.80	5.15

¹ As registration in the UBS share register is optional, shareholders crossing the threshold percentages requiring SIX notification under the FMIA do not necessarily appear in this table. ² Nominee companies and securities clearing organizations cannot autonomously decide how voting rights are exercised and are therefore not obligated to notify UBS and SIX if they reach, exceed or fall below the threshold percentages requiring disclosure notification under the FMIA. Consequently, they do not appear in the “Shareholders subject to FMIA disclosure notifications” section above. ³ DTC (Cede & Co.), New York, “The Depository Trust Company,” is a US securities clearing organization.

Cross-shareholdings

UBS Group AG has no cross-shareholdings where reciprocal ownership would be in excess of 5% of capital or voting rights with any other company.

Share capital structure

Ordinary share capital

At year-end 2022, UBS Group AG had 3,524,635,722 issued shares with a nominal value of CHF 0.10 each, equating to a share capital of CHF 352,463,572.20.

Under Swiss company law, shareholders must approve, in a general meeting of shareholders, any increase or reduction in the ordinary share capital or the creation of conditional or authorized share capital.

In 2022, our shareholders were asked to approve a reduction of share capital by way of canceling 177,787,273 registered shares repurchased under the 2021 share buyback program.

In 2022, our shareholders were not asked to approve the creation of conditional or authorized share capital.

No shares were issued out of existing conditional capital, as there were no employee options and stock appreciation rights outstanding.

Following revisions to Swiss Corporate Law that are effective from 1 January 2023, the BoD will propose at the 2023 AGM that the shareholders approve the conversion of the share capital currency of UBS Group AG from the Swiss franc to the US dollar.

- **Refer to “Share information and earnings per share” in the “Consolidated financial statements” section of this report for information about the conversion of the share capital currency**

Distribution of UBS shares

As of 31 December 2022 <i>Number of shares registered</i>	Shareholders registered		Shares registered	
	Number	%	Number	% of shares issued
1–100	21 641	11.6	1 189 373	0.0
101–1,000	95 818	51.4	45 447 811	1.3
1,001–10,000	62 369	33.4	182 418 473	5.2
10,001–100,000	6 086	3.3	144 786 290	4.1
100,001–1,000,000	512	0.3	149 728 515	4.2
1,000,001–5,000,000	83	0.0	178 206 417	5.1
5,000,001–35,246,357 (1%)	24	0.0	253 068 282	7.2
1–2%	3	0.0	134 680 829	3.8
2–3%	0	0.0	0	0.0

3–4%	0	0.0	0	0.0
4–5%	1	0.0	152 567 310	4.3
Over 5%	2 ¹	0.0	553 962 520	15.7
Total shares registered	186 539	100.0	1 796 055 820 ²	51.0
Shares not registered ³			1 728 579 902	49.0
Total	186 539	100.0	3 524 635 722	100.0

- 1 On 31 December 2022, Chase Nominees Ltd., London, entered as a nominee, was registered with 8.60% of all UBS shares issued. However, according to the provisions of UBS Group AG, voting rights of nominees are limited to a maximum of 5% of all UBS shares issued. The US securities clearing organization DTC (Cede & Co.), New York, was registered with 7.12% of all UBS shares issued and is not subject to this 5% voting limit as a securities clearing organization.
- 2 Of the total shares registered, 264,874,790 shares did not carry voting rights.
- 3 Shares not entered in the UBS share register as of 31 December 2022.

Conditional share capital

At year-end 2022, the following conditional share capital was available to UBS Group AG's BoD.

- A maximum of CHF 38,000,000 represented by up to 380,000,000 fully paid registered shares with a nominal value of CHF 0.10 each, to be issued through the voluntary or mandatory exercise of conversion rights and / or warrants granted in connection with the issuance of bonds or similar financial instruments on national or international capital markets. This conditional capital allowance was approved at the Extraordinary General Meeting (the EGM) held on 26 November 2014, having originally been approved at the AGM of UBS AG on 14 April 2010. The BoD has not made use of such allowance.
- A maximum of CHF 12,170,583 represented by 121,705,830 fully paid registered shares with a nominal value of CHF 0.10 each, to be issued upon exercise of employee options and stock appreciation rights issued to employees and members of the management and of the BoD of UBS Group AG and its subsidiaries. This conditional capital allowance was approved by the shareholders at the same EGM in 2014.
- **Refer to article 4a of the AoA for more information about the terms and conditions of the issue of shares out of existing conditional capital. The AoA are available at ubs.com/governance**
- **Refer to the “Our evolution” section of this report for more information**

Conditional capital of UBS Group AG

<u>As of 31 December 2022</u>	<u>Maximum number of shares to be issued</u>	<u>Year approved by Extraordinary General Meeting</u>	<u>% of shares issued</u>
Employee equity participation plans	121,705,830	2014	3.45
Conversion rights / warrants granted in connection with bonds	380,000,000	2014	10.78
Total	501,705,830		14.23

Authorized share capital

UBS Group AG had no authorized capital available to issue on 31 December 2022.

Changes in capital

In accordance with International Financial Reporting Standards (IFRS), Group equity attributable to shareholders was USD 56.9bn as of 31 December 2022 (2021: USD 60.7bn; 2020: USD 59.4bn). The equity of UBS Group AG shareholders was represented by 3,524,635,722 issued shares as of 31 December 2022 (31 December 2021: 3,702,422,995 shares; 31 December 2020: 3,859,055,395 shares).

- **Refer to “Statement of changes in equity” in the “Consolidated financial statements” section of this report for more information about changes in shareholders’ equity over the last three years**

Ownership

Ownership of UBS Group AG shares is widely spread. The tables in this section provide information about the distribution of UBS Group AG shareholders by category and geographic location. This information relates only to shareholders registered in the UBS share register and cannot be assumed to be representative of UBS Group AG's entire investor base or the actual beneficial ownership. Only shareholders registered in the share register as “shareholders with voting rights” are entitled to exercise voting rights.

- **Refer to “Shareholders’ participation rights” in this section for more information**

As of 31 December 2022, 1,531,181,030 UBS Group AG shares were registered in the share register and carried voting rights, 264,874,790 shares were registered in the share register without voting rights, and 1,728,579,902 shares were not registered in the UBS share register. All shares were fully paid up and eligible for dividends. There are no preferential rights for shareholders, and no other classes of shares have been issued by UBS Group AG.

Shareholders, legal entities and nominees: type and geographical distribution

As of 31 December 2022	Shareholders registered	
	Number	%
Individual shareholders	182 738	98.0
Legal entities	3 646	1.9
Nominees, fiduciaries	155	0.1
Total shares registered	186 539	100.0
Shares not registered		
Total	186 539	100.0

	Individual shareholders		Legal entities		Nominees		Total	
	Number	%	Number	%	Number	%	Number	%
Americas	1 710	0.9	93	0.1	78	0.0	1 881	1.0
<i>of which: USA</i>	<i>1 235</i>	<i>0.7</i>	<i>52</i>	<i>0.0</i>	<i>75</i>	<i>0.0</i>	<i>1 362</i>	<i>0.7</i>
Asia Pacific	5 008	2.7	93	0.0	9	0.0	5 110	2.7
Europe, Middle East and Africa	12 068	6.5	243	0.1	40	0.0	12 351	6.6
<i>of which: Germany</i>	<i>3 821</i>	<i>2.0</i>	<i>30</i>	<i>0.0</i>	<i>3</i>	<i>0.0</i>	<i>3 854</i>	<i>2.1</i>
<i>of which: UK</i>	<i>4 563</i>	<i>2.4</i>	<i>8</i>	<i>0.0</i>	<i>7</i>	<i>0.0</i>	<i>4 578</i>	<i>2.5</i>
<i>of which: rest of Europe</i>	<i>3 415</i>	<i>1.8</i>	<i>201</i>	<i>0.0</i>	<i>29</i>	<i>0.0</i>	<i>3 645</i>	<i>2.0</i>
<i>of which: Middle East and Africa</i>	<i>269</i>	<i>0.1</i>	<i>4</i>	<i>0.0</i>	<i>1</i>	<i>0.0</i>	<i>274</i>	<i>0.1</i>
Switzerland	163 952	87.9	3 217	1.7	28	0.0	167 197	89.6
Total shares registered								
Shares not registered								
Total	182 738	98.0	3 646	1.9	155	0.1	186 539	100.0

At year-end 2022, UBS owned 416,909,010 UBS Group AG registered shares, which corresponded to 11.83% of the total share capital of UBS Group AG. At the same time, UBS had acquisition positions relating to 440,347,367 voting rights of UBS Group AG and disposal positions relating to 182,025,794 such rights, corresponding to 12.49% and 5.16% of the total voting rights of UBS Group AG, respectively. Of the disposal positions, 177,610,490 related to voting rights on shares deliverable in respect of employee awards. The calculation methodology for the acquisition and disposal positions is based on the Ordinance of the Swiss Financial Market Supervisory Authority on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading, which states that all future potential share delivery obligations, irrespective of the contingent nature of the delivery, must be considered.

Employee share ownership

Employee share ownership is encouraged and made possible in a variety of ways. Our Equity Plus Plan is a voluntary plan that provides eligible employees with the opportunity to purchase UBS Group AG shares at market value and receive, at no additional cost, one notional UBS Group AG share for every three shares purchased. Additional shares vest after a maximum of three years, provided the employee remains employed by UBS and has retained the purchased shares throughout the holding period. The Equity Ownership Plan (the EOP) is a mandatory deferral plan for all employees (except GEB members) with regulatory-driven deferral requirements or total compensation greater than USD / CHF 300,000. EOP recipients receive a portion of their deferred performance award in notional shares (or notional funds for employees in Investment Areas within Asset Management). GEB members receive the equity-based Long-Term Incentive Plan (the LTIP) instead of the EOP. Both the EOP and LTIP include employment conditions and malus conditions that allow the firm to reduce or fully forfeit unvested deferred awards under certain circumstances, pursuant to performance and harmful acts provisions. In addition, forfeiture is triggered in cases where employment has been terminated for cause. Underlining our emphasis on sustainable performance and risk management, and our focus on achieving growth ambitions, LTIP awards will only vest if predetermined performance conditions are met.

On 31 December 2022, UBS employees held at least 7.9% of UBS shares outstanding (including approximately 5.05% in unvested deferred notional shares from our compensation programs). These figures are based on known shareholding information from employee participation plans, personal holdings with UBS and selected individual retirement plans. At the end of 2022, at least 25.5% of all employees held UBS shares through the firm's employee share participation plans.

- Refer to the "Compensation" section of this report for more information

Trading restrictions in UBS shares

UBS employees with regular access to unpublished price-sensitive information about the firm are subject to specific restrictions in respect to UBS financial instruments, including, but not limited to, pre-clearance requirements and regular blackout periods. Such UBS employees are not permitted to trade UBS financial instruments in the period starting from the close of business in New York on the seventh business day of the final month of the financial quarter of UBS Group AG and ending on the day of the publication of the quarterly financial results.

Shares and participation certificates

UBS Group AG has a single class of shares, which are registered shares in the form of uncertificated securities (in the sense of the Swiss Code of Obligations) and intermediary-held securities (in the sense of the Swiss Federal Act on Intermediated Securities). Each registered share has a nominal value of CHF 0.10 and carries one vote, subject to the restrictions set out under “Transferability, voting rights and nominee registration” below.

We have no participation certificates outstanding.

Shareholders, legal entities and nominees: type and geographical distribution (continued)

As of 31 December 2022	Shares registered	
	Number	%
Individual shareholders	384 263 314	10.9
Legal entities	490 864 772	13.9
Nominees, fiduciaries	920 927 734	26.1
Total shares registered	1 796 055 820	51.0
Shares not registered	1 728 579 902	49.0
Total	3 524 635 722	100.0

	Individual shareholders		Legal entities		Nominees		Total	
	Number of shares	%	Number of shares	%	Number of shares	%	Number of shares	%
Americas	2 427 163	0.1	29 166 035	0.8	342 441 815	9.7	374 035 013	10.6
<i>of which: USA</i>	<i>935 175</i>	<i>0.0</i>	<i>21 746 373</i>	<i>0.6</i>	<i>342 247 810</i>	<i>9.7</i>	<i>364 929 358</i>	<i>10.4</i>
Asia Pacific	19 829 362	0.6	12 908 549	0.4	7 244 419	0.2	39 982 330	1.1
Europe, Middle East and Africa	42 154 279	1.2	72 455 397	2.1	557 324 269	15.8	671 933 945	19.1
<i>of which: Germany</i>	<i>11 365 680</i>	<i>0.3</i>	<i>1 841 712</i>	<i>0.1</i>	<i>11 597 965</i>	<i>0.4</i>	<i>24 805 357</i>	<i>0.7</i>
<i>of which: UK</i>	<i>19 125 762</i>	<i>0.5</i>	<i>280 984</i>	<i>0.0</i>	<i>517 282 579</i>	<i>14.7</i>	<i>536 689 325</i>	<i>15.2</i>
<i>of which: rest of Europe</i>	<i>10 608 646</i>	<i>0.3</i>	<i>31 497 076</i>	<i>0.9</i>	<i>28 310 742</i>	<i>0.8</i>	<i>70 416 464</i>	<i>2.0</i>
<i>of which: Middle East and Africa</i>	<i>1 054 191</i>	<i>0.0</i>	<i>38 835 625</i>	<i>1.1</i>	<i>132 983</i>	<i>0.0</i>	<i>40 022 799</i>	<i>1.1</i>
Switzerland	319 852 510	9.1	376 334 791	10.7	13 917 231	0.4	710 104 532	20.1
Total shares registered	384 263 314	10.9	490 864 772	13.9	920 927 734	26.1	1 796 055 820	51.0
Shares not registered	0		0		0		1 728 579 902	49.0
Total	384 263 314	10.9	490 864 772	13.9	920 927 734	26.1	3 524 635 722	100.0

Our shares are listed on the NYSE as global registered shares. As such, they can be traded and transferred across applicable borders, without the need for conversion, with identical shares traded on different stock exchanges in different currencies.

- Refer to “UBS shares” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information

Distributions to shareholders

The decision to pay a dividend and the amount of any dividend depend on a variety of factors, including our profits, cash flow generation and capital ratios.

At the 2023 AGM, the BoD is proposing to shareholders for approval a dividend of USD 0.55 per share for the 2022 financial year. Shareholders whose shares are held through SIX SIS AG will receive dividends in Swiss francs, based on a public exchange rate on the day prior to the ex-dividend date. Shareholders holding shares through The Depository Trust Company in New York and Computershare will be paid dividends in US dollars.

In compliance with Swiss tax law, 50% of the dividend will be paid out of retained earnings and the balance will be paid out of the capital contribution reserve. Dividends paid out of capital contribution reserves are not subject to Swiss withholding tax. The portion of the dividend paid out of retained earnings will be subject to a 35% Swiss withholding tax. For US federal income tax purposes, we expect that the dividend will be paid out of current or accumulated earnings and profits.

Provided that the proposed dividend distribution out of retained earnings and out of the capital contribution reserve will be approved at the AGM on 5 April 2023, the payment of USD 0.55 per share will be made on 14 April 2023 to holders of shares on the record date 13 April 2023. The shares will be traded ex-dividend as of 12 April 2023 and, accordingly, the last day on which the shares may be traded with entitlement to receive the dividend will be 11 April 2023.

In February 2022, the BoD announced a new two-year share buyback program. At the 2022 AGM, the shareholders authorized the BoD to buy back shares for cancellation purposes in an aggregate value of up to USD 6bn until the 2024 AGM. Any shares bought back under the program are intended to be canceled by way of capital reduction, which will be subject to shareholder approval at one or several subsequent AGMs, and the acquisition and holding of such shares are not subject to the 10% threshold for UBS Group AG's own shares within the meaning of Art. 659 para. 1 of the Swiss Code of Obligations. The 2021 share repurchase program was concluded on 29 March 2022 with a total of 240,335,273 shares repurchased, at an overall purchase price of CHF 3.81bn. A total of 177,787,273 shares purchased up to 18 February 2022 were canceled in June 2022 upon approval at the 2022 AGM of UBS Group AG. The remaining 62,548,000 shares, repurchased between 21 February 2022 and 29 March 2022, are expected to be canceled by means of a capital reduction, to be proposed for shareholder approval at the 2023 AGM.

Looking ahead, we intend to commence a new, 2023 share repurchase program of up to USD 6bn over two years and expect to execute more than USD 5bn of share repurchases under both the existing, 2022 repurchase program and the new program in 2023.

- Refer to “UBS shares” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information about the share repurchase programs

Transferability, voting rights and nominee registration

We do not apply any restrictions or limitations on the transferability of shares. Voting rights may be exercised without any restrictions by shareholders entered into the share register if they expressly render a declaration of beneficial ownership according to the provisions of the AoA.

We have special provisions for the registration of nominees. Nominees are entered in the share register with voting rights up to a total of 5% of all issued UBS Group AG shares if they agree to disclose, upon our request, beneficial owners holding 0.3% or more of all issued UBS Group AG shares. An exception to the 5% voting limit rule is in place for securities clearing organizations, such as The Depository Trust Company in New York.

- **Refer to “Shareholders’ participation rights” in this section for more information**

Convertible bonds and options

As of 31 December 2022, there were no contingent capital securities or convertible bonds outstanding requiring the issuance of new shares.

- **Refer to the “Capital, liquidity and funding, and balance sheet” section of this report for more information about our outstanding capital instruments**

As of 31 December 2022, there were no employee options and stock appreciation rights outstanding. Option-based compensation plans are sourced by issuing new shares out of conditional capital. As of 31 December 2022, 121,705,830 unissued UBS Group AG shares in conditional share capital were available for the issuance of new shares for this purpose.

- **Refer to “Conditional share capital” in this section for more information**
- **Refer to “Note 27 Employee benefits: variable compensation” in the “Consolidated financial statements” section of this report for more information about outstanding options and stock appreciation rights**

Shareholders’ participation rights

We are committed to shareholder participation in decision-making processes. Our online voting platform offers registered shareholders a convenient log-in and online voting process. Registered shareholders are sent personal invitations to the general meetings. Together with the invitation materials, they receive a personal one-time password and a QR code to easily log in to the online voting platform, where they can enter their voting instructions or order an admission card for the general meeting.

Shareholders who choose not to receive the comprehensive invitation materials are informed of upcoming general meetings by a short letter containing a personal one-time password, a QR code for online voting and a reference to ubs.com/agm, where all information for the upcoming meeting is available.

General meetings offer shareholders the opportunity to raise questions for the BoD, GEB and internal and external auditors. During the pandemic, when the general meetings 2020–2022 had to be held without the physical attendance of shareholders, we also offered all shareholders the opportunity to contact us with questions, which were answered in writing or during the general meeting.

Voting rights, restrictions and representation

We place no restrictions on share ownership and voting rights. However, pursuant to general principles formulated by the BoD, nominee companies, which normally represent a large number of individual shareholders and may hold an unlimited number of shares, have voting rights limited to a maximum of 5% of all issued UBS Group AG shares. This is to avoid large shareholders being entered in UBS’s share register via nominee companies so as to exercise influence without directly registering their shares with UBS. Securities clearing organizations, such as The Depository Trust Company in New York, are not subject to this 5% voting limit.

Shareholders can exercise voting rights conferred by shares only if they are registered in our share register with voting rights. To register, shareholders must confirm that they have acquired UBS Group AG shares in their own name and for their own account. Nominee companies are required to sign an agreement confirming their willingness to disclose, upon our request, individual beneficial owners holding more than 0.3% of all issued UBS Group AG shares.

All shareholders registered with voting rights are entitled to participate in general meetings. If they do not wish to attend in person, they may issue instructions to support, reject or abstain for each individual item on the meeting agenda, either by giving instructions to an independent proxy in accordance with article 14 of the AoA or by appointing another registered shareholder of their choice to vote on their behalf. Alternatively, registered shareholders may issue their voting instructions to the independent proxy electronically through our online voting platform. Nominee companies normally submit the proxy material to the beneficial owners and forward the collected votes to the independent proxy.

- **Refer to article 14 of the AoA, available at ubs.com/governance, for more information about the issuing of instructions to independent voting right representatives**

Statutory quorums

Motions are decided at a general meeting by an absolute majority of the votes cast, excluding blank and invalid ballots. For the approval of certain specific issues, the Swiss Code of Obligations requires a positive vote from a two-thirds majority of the votes represented at the given general meeting and from a majority of the nominal value of shares represented thereat. Such issues include creating shares with privileged voting rights, introducing restrictions on the transferability of registered shares, authorizing contingent capital or a capital band and restricting or excluding shareholders' preemptive rights.

The AoA also require a two-thirds majority of votes represented for approval of any change to their provisions regarding the number of BoD members, any decision to remove one-quarter or more of the BoD members and any modification to the provision establishing this qualified quorum.

Votes and elections are generally conducted electronically to ascertain the exact number of votes cast. Voting by a show of hands is possible if a clear majority is predictable. Shareholders representing at least 3% of the votes represented may request that a vote or election be carried out electronically or by written ballot. To allow shareholders to clearly express their views on all individual topics, each agenda item is separately put to a vote and BoD members are elected on a person-by-person basis.

Convocation of general meetings of shareholders

The AGM must be held within six months of the close of the financial year (i.e., 31 December). In 2023, the AGM will take place on 5 April.

Extraordinary general meetings (EGMs) may be convened whenever the BoD or the auditors consider it necessary. Shareholders individually or jointly representing at least 10% of the share capital may at any time, including during an AGM, require, by way of a written statement, that an EGM be convened to address a specific issue they put forward.

A personal invitation, including a detailed agenda, is made available to every registered shareholder at least 20 days ahead of each scheduled general meeting. The items on the agenda are also published in the Swiss Official Gazette of Commerce, as well as at ubs.com/agm.

Placing of items on the agenda

Pursuant to our AoA, shareholders individually or jointly representing shares with an aggregate minimum nominal value of CHF 62,500 may submit proposals for matters to be placed on the agenda for consideration at the next general meeting of shareholders.

At the beginning of January, the invitation to submit such proposals is published in the Swiss Official Gazette of Commerce and at ubs.com/agm. Requests for items to be placed on the agenda must include the actual motions to be put forward, together with a short explanation. Such requests must be submitted to the BoD at least 50 days prior to the general meeting of shareholders, including a statement from the depository bank confirming the number of shares held by the requesting shareholder(s) and that these shares are blocked from sale until the end of the general meeting of shareholders. The BoD formulates opinions on the proposals, which are published together with the motions.

Registrations in the share register

The share register of UBS Group AG, where around 185,000 shareholders are directly registered, is an internal, non-public register subject to statutory confidentiality, secrecy, privacy and data protection regulations protecting registered shareholders. In general, third parties and shareholders have no inspection rights with regard to data related to other shareholders. Disclosure of such data is permitted only in specific and limited instances. In line with the Swiss Federal Act on Data Protection, the disclosure of personal data as defined thereunder is only allowed with the consent of the registered shareholder and in cases where there is an overriding private or public interest or if explicitly provided for by Swiss law. The Swiss Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading contains specific reporting duties, such as in relation to significant shareholders (refer to "Significant shareholders" in this section for more information). Disclosure may also be required or requested by a court of a competent jurisdiction, by any regulatory body that regulates the conduct of UBS Group AG or by other statutory provisions.

The general rules for entry into our Swiss share register with voting rights are described in article 5 of our AoA. The same rules apply to our US transfer agent that operates the US share register for all UBS Group AG shares in a custodian account in the US, where some 255,000 US shareholders are indirectly registered via nominee companies. In order to determine the voting rights of each shareholder, our share register generally closes two business days prior to a general meeting. Our independent proxy agent processes voting instructions from shareholders as long as technically possible, generally also until two business days before a general meeting. Such technical closure of our share register facilitates the determination of the actual voting rights of every shareholder that issued a voting instruction. Irrespective of this technical closure, shares that are registered in our share register are never immobilized and are freely tradable at any time, irrespective of any issued voting instructions.

- **Refer to article 5 of our AoA, available at ubs.com/governance, for more information about the general rules for entry into our Swiss share register**

Board of Directors

The BoD of UBS Group AG, led by the Chairman, consists of between 6 and 12 members, as per our AoA.

The BoD decides on the strategy of the Group, upon recommendation by the Group Chief Executive Officer (the Group CEO), and is responsible for the overall direction, supervision and control of the Group and its management. It is also responsible for supervising compliance with applicable laws, rules and regulations. The BoD exercises oversight over UBS Group AG and its subsidiaries, and is responsible for establishing a clear Group governance framework to provide effective steering and supervision of the Group, taking into account the material risks to which UBS Group AG and its subsidiaries are exposed. The BoD has ultimate responsibility for the success of the Group and for delivering sustainable shareholder value within a framework of prudent and effective controls. It approves all financial statements and appoints and removes all GEB members.

The BoD of UBS AG, led by the Chairman, decides on the strategy of UBS AG upon recommendation by the President of its Executive Board and exercises the ultimate supervision of management. Its ultimate responsibility for the success of UBS AG is exercised subject to the parameters set by the Group.

Members of the Board of Directors

At the AGM on 6 April 2022, Jeremy Anderson, Claudia Böckstiegel, William C. Dudley, Patrick Firmenich, Fred Hu, Mark Hughes, Nathalie Rachou, Julie G. Richardson, Dieter Wemmer and Jeanette Wong were re-elected as members of the BoD. The Chairman, Axel A. Weber, and Reto Francioni did not stand for re-election; the biographies of Mr. Weber and Mr. Francioni can be found on pages 194 and 197 of the UBS Group AG Annual Report 2021, available under “Annual reporting” at ubs.com/investors. Colm Kelleher and Lukas Gähwiler were elected for their first terms, as the new Chairman and a new Board member, respectively. At that same AGM, Julie G. Richardson, Dieter Wemmer and Jeanette Wong were re-elected as members of the Compensation Committee. ADB Altorfer Duss & Beilstein AG was re-elected as independent proxy agent. Following their election, the BoD appointed Lukas Gähwiler as Vice Chairman and Jeremy Anderson as Senior Independent Director of UBS Group AG.

Article 31 of our AoA limits the number of mandates that members of the BoD may hold outside UBS Group to four mandates in listed companies and five additional mandates in non-listed companies. Mandates in companies that are controlled by us or that control us are not subject to this limitation. In addition, members of the BoD may hold no more than 10 mandates at UBS’s request and 10 mandates in associations, charitable organizations, foundations, trusts, and employee welfare foundations. As of 31 December 2022, no member of the BoD reached the thresholds described in article 31 of our AoA.

The following biographies provide information about the BoD members who were in office after the 2022 AGM and the Group Company Secretary. In addition to information on mandates, the biographies include information on memberships or other activities or functions, as required by the SIX Swiss Exchange Corporate Governance Directive.

No member of the BoD currently carries out or has carried out over the past three years operational management tasks within the Group; therefore, all members of the Board are non-executive members.

All members of UBS Group AG’s BoD are also members of UBS AG’s BoD, and committee membership is the same for both entities. The Senior Independent Director function relates only to UBS Group AG.

In 2022, UBS AG’s BoD had three permanent committees: the Audit Committee, the Compensation Committee and the Risk Committee. In addition to these, UBS Group AG also had the Corporate Culture and Responsibility Committee and the Governance and Nominating Committee as permanent committees.



Colm Kelleher

Chairman of the Board of Directors and non-executive member of the Board since 2022

- Chairperson of the Corporate Culture and Responsibility Committee since 2022
- Chairperson of the Governance and Nominating Committee since 2022

Nationality: Irish | **Year of birth:** 1957

Colm Kelleher was elected Chairman of UBS in April 2022. He served as President of Morgan Stanley until retiring from that firm in 2019, overseeing both the Institutional Securities Business and Wealth Management. Before that, he was Co-President and then President of Morgan Stanley Institutional Securities. During the global financial crisis, he held the position of CFO and Co-Head Corporate Strategy from 2007 to 2009. Mr. Kelleher is a well-respected leader in the financial services sector. His 30-year career with Morgan Stanley attests to his solid leadership experience in banking and excellent relationships around the world. He has a deep understanding of the global banking landscape and broad banking experience across all the geographic regions and major business areas in which UBS operates.

Professional experience

2016 – 2019	President, Morgan Stanley, responsible for Institutional Securities and Wealth Management
2011 – 2016	CEO of Morgan Stanley International, Morgan Stanley
2013 – 2015	President, Institutional Securities, Morgan Stanley
2010 – 2012	Co-President, Institutional Securities, Morgan Stanley
2007 – 2009	CFO and Co-Head Corporate Strategy, Morgan Stanley
2006 – 2007	Head Global Capital Markets, Morgan Stanley
2004 – 2006	Co-Head Fixed Income, Europe, Morgan Stanley
1989 – 2004	Various roles, Morgan Stanley

Education

- Master’s degree, modern history, University of Oxford
- Fellow of the Institute of Chartered Accountants in England and Wales

Listed company boards

- Member of the Board of Norfolk Southern Corporation (chair of the risk and finance committee)

Other activities and functions

- Member of the Board of Directors of the Bretton Woods Committee
- Member of the Board of the Swiss Finance Council
- Member of the Board of Americans for Oxford
- Member of the Oxford Chancellor’s Court of Benefactors
- Member of the Advisory Council of the British Museum
- Member of the International Advisory Council of the China Securities Regulatory Commission
- Member of the European Financial Services Round Table
- Member of the European Banking Group
- Member of the International Monetary Conference

Key competencies

- Banking (wealth management, asset management, personal and corporate banking) and insurance
- Investment banking, capital markets
- Finance, audit, accounting
- Risk management, compliance and legal

Leadership experience

- CEO, Chairman



Lukas Gähwiler

Vice Chairman and non-executive member of the Board since 2022

Nationality: Swiss | **Year of birth:** 1965

Lukas Gähwiler brings a wealth of industry experience and an in-depth understanding of UBS to the Board. He served as Chairman of the Board of UBS Switzerland AG for five years and was a member of the Group Executive Board of UBS and President UBS Switzerland from 2010 to 2016, responsible for the private clients, wealth management, corporate and institutional clients, investment banking, and asset management businesses in UBS’s home market. Before joining UBS, Mr. Gähwiler worked for Credit Suisse for over twenty years, his last role being Chief Credit Officer, Global Private and Corporate Banking. In addition to his leadership and industry experience across all parts of the banking business, his strong connections and network, particularly in Switzerland, are instrumental for the firm.

Professional experience

- 2017 – 2022 Chairman of the Board of Directors of UBS Switzerland AG
- 2010 – 2016 Member of the Group Executive Board, UBS and President UBS Switzerland
- 2003 – 2010 Chief Credit Officer, Global Private and Corporate Banking, Credit Suisse
- 2002 – 2003 Head Credit Risk Management, Corporate Clients Switzerland, Credit Suisse
- 1998 – 2001 Chief of Staff to CEO, Private and Corporate Clients, Credit Suisse
- 1990 – 1998 Various senior front office roles in Corporate Clients in Switzerland and North America, Credit Suisse
- 1981 – 1986 Client Advisor Retail and Wealth Management, St.Galler Kantonalbank

Education

- Advanced Management Program, Harvard Business School
- MBA program, International Bankers School, New York
- Bachelor’s degree, business administration, University of Applied Sciences, St. Gallen

Non-listed company boards



Jeremy Anderson

Senior Independent Director since 2020 and non-executive member of the Board since 2018

- Member of the Governance and Nominating Committee since 2019
- Chairperson of the Audit Committee since 2018

Nationality: British | **Year of birth:** 1958

Jeremy Anderson is a financial services veteran, with more than 30 years’ experience working in the banking and insurance sector in an advisory capacity, covering a broad range of topics, including strategy, audit and risk management, technology-enabled transformation, mergers, and bank restructuring. Before retiring from KPMG in 2017, he was its Chairman of Global Financial Services. Mr. Anderson is also an IT expert, having started out as a software developer in the early 1980s, before working in IT consulting and developing a broad knowledge of systems integration and IT outsourcing services, as well as software development. He cemented his reputation as a tech specialist by becoming a founding sponsor of KPMG’s Global Fintech Network in 2014.

Professional experience

- 2010 – 2017 Chairman of Global Financial Services, KPMG International
- 2008 – 2011 Head of Clients and Markets KPMG Europe, KPMG International
- 2006 – 2011 Head of Financial Services KPMG Europe, KPMG International
- 2004 – 2006 Head of Financial Services KPMG UK, KPMG International
- 2002 – 2004 Member of the Group Management Board and Head of UK operations, Atos Origin SA
- 1985 – 2002 KPMG consulting UK, KPMG
- 1980 – 1985 Software developer, Triad Computing Systems

Education

- Bachelor’s degree, economics, University College London

Listed company boards

- Member of the Board of Prudential plc

- Vice Chairman of the Board of Directors of Pilatus Aircraft Ltd
- Member of the Board of Directors of Ringier AG

Other activities and functions

- Vice Chairman of the Swiss Bankers Association
- Chairman of the Employers Association of Banks in Switzerland
- Member of the Board of Directors of the Swiss Employers Association
- Member of the Board of economiesuisse
- Chairman of the Foundation Board of the UBS Pension Fund
- Member of the Board of the Swiss Finance Council
- Member of the Board of Trustees of Avenir Suisse

Key competencies

- Banking (wealth management, asset management, personal and corporate banking) and insurance
- Finance, audit, accounting
- Risk management, compliance and legal
- Human resources management, including compensation

Leadership experience

- CEO, Chairman

Other activities and functions

- Trustee of the UK's Productivity Leadership Group
- Trustee of The Kingham Hill Trust
- Trustee of St. Helen's Bishopsgate

Key competencies

- Banking (wealth management, asset management, personal and corporate banking) and insurance
- Finance, audit, accounting
- Risk management, compliance and legal
- Technology, cybersecurity

Leadership experience

- Executive board leadership



Claudia Böckstiegel

Non-executive member of the Board since 2021

- Member of the Corporate Culture and Responsibility Committee since 2022

Nationality: Swiss and German | **Year of birth:** 1964

Claudia Böckstiegel has been General Counsel and a member of the Enlarged Executive Committee of Roche Holding AG since 2020. She started her professional career as an attorney in private practice in Germany, then joined the Swiss pharmaceutical company Roche in Germany in 2001 and subsequently held various global management positions in the legal sector in Switzerland. Ms. Böckstiegel brings a wealth of know-how in a highly regulated sector. Her responsibilities at Roche Holding AG include a broad range of additional topics, such as safety, health and environment, patents, audit and risk advisory, compliance, and sustainability.

Professional experience

2020 – date	General Counsel and member of the Enlarged Executive Committee, Roche Holding AG
2016 – 2020	Head of Legal Diagnostics, F. Hoffmann-La Roche Ltd., Basel, Switzerland, Roche Group
2010 – 2016	Head Legal Business, Roche Diagnostics International Ltd, Rotkreuz, Switzerland, Roche Group
2005 – 2010	Head Legal Business, Roche Diagnostics GmbH, Mannheim, Germany, Roche Group
2001 – 2005	Legal Counsel, Roche Diagnostics GmbH, Mannheim, Germany, Roche Group
1995 – 2001	Attorney (Partner), Philipp & Littig, Mannheim, Germany
1992 – 1995	Attorney (Associate), Dr. Hermann Büttner, Karlsruhe, Germany

Education

- Master’s degree, law, Universities of Mannheim and Heidelberg
- Master of Laws (LL.M.), Georgetown University, Washington, DC

Other activities and functions

- None



William C. Dudley

Non-executive member of the Board since 2019

- Member of the Corporate Culture and Responsibility Committee since 2019
- Member of the Risk Committee since 2019

Nationality: American (US) | **Year of birth:** 1953

William C. Dudley served as the President and CEO of the Federal Reserve Bank of New York for nine years. He demonstrated exceptional leadership in monetary policy and as a top regulator, including during the years of the global financial crisis. During that period, his additional area of focus included cultural behavior and social and governance topics in the financial services industry. He also served as the Vice Chairman and a permanent member of the Federal Open Market Committee. Mr. Dudley brings a wealth of experience in banking and research thanks to his former management positions at Goldman Sachs Group and Morgan Guaranty Trust.

Professional experience

2009 – 2018	President and CEO, Federal Reserve Bank of New York
2007 – 2009	Executive Vice President and Head Markets Group, Federal Reserve Bank of New York
2006	Senior advisor (part-time), Goldman Sachs Group
2002 – 2005	Partner and Director US Economic Research Group, Goldman Sachs Group
1996 – 2002	Managing Director and Director US Economic Research Group, Goldman Sachs Group
1983 – 1996	Economist at Goldman Sachs Group, Morgan Guaranty Trust Company, and Board of Governors of the Federal Reserve System

Education

- Bachelor of Arts, New College of Florida
- Doctorate, economics, University of California, Berkeley

Non-listed company boards

- Member of the Board of Treliant LLC

Other activities and functions

Key competencies

- Finance, audit, accounting
- Risk management, compliance and legal
- Regulatory authority, central bank
- ESG (environmental, social and governance)

Leadership experience

- Executive board leadership

- Senior Advisor to the Griswold Center for Economic Policy Studies, Princeton University
- Member of the Group of Thirty
- Member of the Council on Foreign Relations
- Chairman of the Bretton Woods Committee Board of Directors
- Member of the Board of the Council for Economic Education
- Opinion writer and consultant to Bloomberg Economics, Bloomberg

Key competencies

- Investment banking, capital markets
- Risk management, compliance and legal
- Regulatory authority, central bank
- ESG (environmental, social and governance)

Leadership experience

- CEO, Chairman



Patrick Firmenich

Non-executive member of the Board since 2021

- Member of the Audit Committee since 2021
- Member of the Corporate Culture and Responsibility Committee since 2021

Nationality: Swiss | **Year of birth:** 1962

Patrick Firmenich has been Chairman of the Board of Firmenich International SA, the world’s largest privately owned fragrances and flavorings company, since 2016, after leading the company as CEO during a 12-year tenure. He demonstrated his entrepreneurial leadership by significantly advancing the Firmenich group’s global position through organic and in-organic growth and succeeded in transforming the organization to continuously respond to client needs and the market environment. He developed an ambitious sustainability strategy for the group to lead the industry in health, safety and environmental performance. Before joining Firmenich, he held several positions in the legal and banking sectors, including working as an international investment banking analyst.

Professional experience

- 2014 – 2016 Vice Chairman of the Board, Firmenich International SA
- 2002 – 2014 CEO, Firmenich SA, Geneva
- 2001 – 2002 Corporate Vice President, Special Operations, Firmenich SA, Geneva
- 1997 – 2001 Vice President Fine Fragrance worldwide and Président Directeur Général, Firmenich & Cie, Paris, and Firmenich Inc, New York
- 1993 – 1997 Vice President Fine Fragrance North America, Firmenich Inc, New York
- 1990 – 1993 Account Manager, Firmenich & Cie, Paris
- 1988 – 1989 Analyst, International Investment Banking, Credit Suisse First Boston
- 1988 Production administrator, Firmenich SA de CV, Mexico
- 1984 – 1986 Attorney, Business Law, Patry, Junet, Simon & Le Fort, Geneva

Education

- Master’s degree, law, University of Geneva, admitted to the bar in Geneva
- MBA, INSEAD Fontainebleau



Fred Hu

Non-executive member of the Board since 2018

- Member of the Governance and Nominating Committee since 2020

Nationality: Chinese | **Year of birth:** 1963

Fred Hu has been the Chairman and CEO of Primavera Capital Group, an Asia-based private investment firm focused on emerging technology and innovative industries, since founding it in 2010. Prior to that, he was a partner and Chairman for Greater China at Goldman Sachs. Mr. Hu has a profound understanding of China’s economy and rapidly developing financial system, and a vast amount of experience advising and investing in leading firms in the tech, consumer and health-care sectors in China and globally. He has worked at the IMF and advised the Chinese government on economic policy.

Professional experience

- 2010 – date Founder, Chairman and CEO, Primavera Capital Group, China
- 2008 – 2010 Partner and Chairman of Greater China, Goldman Sachs
- 2004 – 2008 Partner and Co-Head, Investment Banking, China, Goldman Sachs
- 2003 – 2004 Managing Director and Co-Head, Investment Banking, China, Goldman Sachs
- 2000 – 2003 Managing Director and Chief Economist and Strategist, Greater China, Goldman Sachs
- 1996 – date Co-Director, the National Center for Economic Research
- 1996 – date Adjunct Professor, Economics, Tsinghua University

Education

- Master’s degree, engineering science, Tsinghua University
- Master’s degree and doctorate, economics, Harvard University

Listed company boards

- Non-executive Chairman of the Board of Yum China Holdings (chair of the nomination and governance committee)
- Member of the Board of ICBC

Non-listed company boards

- Chairman of Primavera Capital Ltd

Non-listed company boards

- Chairman of Firmenich International SA
- Member of the Board of Jacobs Holding AG

Other activities and functions

- Member of the Board of INSEAD and INSEAD World Foundation
- Member of the Advisory Council of the Swiss Board Institute

Key competencies

- Finance, audit, accounting
- Risk management, compliance and legal
- Human resources management, including compensation
- ESG (environmental, social and governance)

Leadership experience

- CEO, Chairman

Other activities and functions

- Trustee of the China Medical Board
- Governor of the Chinese International School in Hong Kong SAR
- Co-Chairman of the Nature Conservancy Asia Pacific Council
- Member of the Board of Trustees, the Institute for Advanced Study
- Director and member of the Executive Committee of China Venture Capital and Private Equity Association Ltd.

Key competencies

- Investment banking, capital markets
- Risk management, compliance and legal
- Technology, cybersecurity
- Regulatory authority, central bank

Leadership experience

- CEO, Chairman



Mark Hughes

Non-executive member of the Board since 2020

- Chairperson of the Risk Committee since 2020
- Member of the Corporate Culture and Responsibility Committee since 2020

Nationality: Canadian, British and American (US) | **Year of birth:** 1958

Mark Hughes is a highly experienced professional in the financial services sector, having spent more than 35 years working for RBC (the Royal Bank of Canada) in Canada, the US and the UK. In his final role as Group Chief Risk Officer of RBC, he was responsible for the strategic management of risk on an enterprise-wide basis and oversaw all risk functions. During his career, Mr. Hughes has also held senior management positions in the front office and key operational roles. Currently, he is a visiting lecturer at Leeds University and is chair of the Global Risk Institute, bringing an enormous amount of experience as a risk specialist to the Board of Directors of UBS.

Professional experience

- 2014 – 2018 Group Chief Risk Officer and member Group Executive Committee, RBC
- 2013 Deputy Chief Risk Officer, RBC
- 2008 – 2013 COO, RBC Capital Markets, RBC
- 2001 – 2008 Head of Global Credit, RBC
- 1999 – 2001 Head of Debt Products, RBC
- 1998 – 1999 Senior Vice President and General Manager USA, RBC
- 1997 – 1998 Senior Vice President Financial Services, RBC
- 1982 – 1996 Various positions, RBC

Education

- Bachelor of Laws (LL.B.), University of Leeds
- MBA, finance, University of Manchester

Other activities and functions

- Chair of the Board of Directors of the Global Risk Institute
- Visiting lecturer at the University of Leeds
- Senior advisor to McKinsey & Company

Key competencies



Nathalie Rachou

Non-executive member of the Board since 2020

- Member of the Governance and Nominating Committee since 2022
- Member of the Risk Committee since 2020

Nationality: French | **Year of birth:** 1957

Nathalie Rachou is a seasoned expert in financial services, having held a number of banking positions, such as CEO of Prime Brokerage and head of a business line in Capital Markets at Crédit Agricole Indosuez in the UK and in France. In 1999, she founded a London-based asset management company that merged with a French asset manager and continued as a senior adviser until 2020. Alongside these roles, Ms. Rachou brings extensive experience from serving as a board member of Société Générale for 12 years and is currently on the boards of two other listed companies, including the pan-European bourse, Euronext N.V.

Professional experience

- 2015 – 2020 Senior Advisor, Clartan Associés (formerly Rouvier Associés), France
- 1999 – 2014 Founding partner and CEO, Topiary Finance Ltd., UK
- 1996 – 1999 Head of Global Foreign Exchange and Currency Options, Crédit Agricole Indosuez (formerly Banque Indosuez), UK
- 1991 – 1996 Corporate Secretary and Secretary to the Board of Directors, Crédit Agricole Indosuez, France
- 1986 – 1991 COO, Carr Futures, France (owned by Banque Indosuez), Crédit Agricole Indosuez, France
- 1983 – 1986 Head of Asset and Liability Management & Market Risks, Crédit Agricole Indosuez, France
- 1978 – 1982 Position in Forex Exchange Sales, Crédit Agricole Indosuez, France and UK

Education

- Master’s degree, management, HEC Paris
- MBA, INSEAD Fontainebleau

Listed company boards

- Member of the Board of Euronext N.V. (chair of the remuneration committee)
- Member of the Board of Veolia Environnement SA (chair of the audit committee)

- Banking (wealth management, asset management, personal and corporate banking) and insurance
- Investment banking, capital markets
- Risk management, compliance and legal
- Technology, cybersecurity

Leadership experience

- Executive board leadership

Non-listed company boards

- Member of the Board of the African Financial Institutions Investment Platform

Key competencies

- Banking (wealth management, asset management, personal and corporate banking) and insurance
- Investment banking, capital markets
- Finance, audit, accounting
- Risk management, compliance and legal



Julie G. Richardson

Non-executive member of the Board since 2017

- Chairperson of the Compensation Committee since 2019
- Member of the Risk Committee since 2017

Nationality: American (US) | **Year of birth:** 1963

Julie G. Richardson spent more than 25 years on Wall Street as a senior investment banker with a focus on telecom, media and technology. She began her career at Merrill Lynch, before moving to JPMorgan Chase, where she headed the telecommunications, media and technology investment banking group. Later, she moved into private equity, as head of the New York office of Providence Equity Partners. Throughout her career, Ms. Richardson has spent significant time with both incumbent and new technology companies, including being a board member of a digital knowledge management company and a leading cloud monitoring firm.

Professional experience

- 2012 – 2014 Senior advisor, Providence Equity Partners, New York
- 2003 – 2012 Partner and Head of the New York office, Providence Equity Partners, New York
- 1998 – 2003 Vice Chairman of the Investment Banking division of JPMorgan Chase & Co. and Head of its Global Telecommunications, Media and Technology group
- 1986 – 1998 Various positions at Merrill Lynch, final position: Managing Director Media and Communications Investment Banking

Education

- Bachelor’s degree, business administration, University of Wisconsin–Madison

Listed company boards

- Member of the Board of Yext (chair of the audit committee)
- Member of the Board of Datadog (chair of the audit committee)

Non-listed company boards

- Member of the Board of Fivetran
- Member of the Board of Coalition, Inc.



Dieter Wemmer

Non-executive member of the Board since 2016

- Member of the Audit Committee since 2019
- Member of the Compensation Committee since 2018

Nationality: Swiss and German | **Year of birth:** 1957

Dieter Wemmer began his highly successful career in the insurance sector with the Zurich Group in 1986, retiring in 2017 as CFO of Allianz. As a long-serving CFO of two large multi-national companies in the financial services sector, he has deep experience across a broad range of highly relevant topics. Mr. Wemmer brings to the BoD knowledge covering accounting, finance and audit, including capital markets, investments and risk management, as well as asset management. His know-how includes hands-on experience in mergers and acquisitions, and management of large organizations with a focus on strategy.

Professional experience

- 2013 – 2017 CFO, Allianz SE
- 2012 – 2013 Member of the Board of Management, responsible for the insurance business in France, Benelux, Italy, Greece and Turkey and for the “Global Property & Casualty” Center of Competence, Allianz SE
- 2007 – 2011 CFO, Zurich Insurance Group
- 2010 – 2011 Regional Chairman of Europe, Zurich Insurance Group
- 2004 – 2007 CEO of the Europe General Insurance business and member of Zurich’s Group Executive Committee, Zurich Insurance Group
- 2003 – 2004 COO of Europe General Insurance, Zurich Insurance Group
- 1999 – 2003 Head of Mergers and Acquisitions, Zurich Insurance Group
- 1997 – 1999 Head of Financial Controlling, Zurich Insurance Group

Education

- Master’s degree and doctorate, mathematics, University of Cologne

Listed company boards

- Member of the Board of Ørsted A/S (chair of the audit and risk committee)

Non-listed company boards

Key competencies

- Investment banking, capital markets
- Risk management, compliance and legal
- Human resources management, including compensation
- Technology, cybersecurity

- Chairman of Marco Capital Holdings Limited, Malta and subsidiaries

Other activities and functions

- Member of the Berlin Center of Corporate Governance

Key competencies

- Banking (wealth management, asset management, personal and corporate banking) and insurance
- Investment banking, capital markets
- Finance, audit, accounting
- Risk management, compliance and legal

Leadership experience

- Executive board leadership



Jeanette Wong

Non-executive member of the Board since 2019

- Member of the Compensation Committee since 2020
- Member of the Audit Committee since 2019

Nationality: Singaporean | **Year of birth:** 1960

Jeanette Wong has spent more than 30 years working in the financial sector in Singapore. She retired from DBS Group in 2019, where she was Group Executive responsible for the institutional banking business, a post that encompassed corporate banking, global transaction services, strategic advisory, and mergers and acquisitions. Prior to that, she held the position of CFO at DBS Bank. During a 16-year career with JPMorgan Chase, Ms. Wong helped build up its Asia and emerging markets business. She brings extensive experience from serving as a member of the board of directors of two high-value listed companies.

Professional experience

- 2008 – 2019 Group Executive institutional banking business, DBS Bank, Singapore
- 2003 – 2008 CFO, DBS Bank, Singapore
- 2003 Chief Administration Officer, DBS Bank, Singapore
- 1997 – 2002 Country Manager Singapore, JPMorgan Chase, Singapore
- 1986 – 1997 Various roles in Global Markets and Emerging Markets Sales and Trading business, Asia, JPMorgan Chase, Singapore
- 1984 – 1986 Manager, Private Banking, Citibank, Singapore
- 1982 – 1984 Manager, Corporate Banking, Paribas, Singapore

Education

- Bachelor’s degree, business administration, the National University of Singapore
- MBA, University of Chicago

Listed company boards

- Member of the Board of Prudential plc
- Member of the Board of Singapore Airlines Limited

Non-listed company boards



Markus Baumann

Group Company Secretary since 2017

Nationality: Swiss | **Year of birth:** 1963

Markus Baumann joined UBS in 1979 as a banking apprentice and has now been with the firm for more than 40 years. Earlier in his career, he worked in Japan for four years, as Corporate Planning Officer and assistant to the CEO. He then worked as COO EMEA for UBS Asset Management and has since held a broad range of leadership roles across the Group in Switzerland, the US and Japan, including COO of Group Internal Audit from 2006 to 2015.

Professional experience

- 2017 – date Group Company Secretary of UBS Group AG and Company Secretary of UBS AG
- 2015 – 2016 Chief of Staff to the Chairman of the Board of Directors, UBS
- 2006 – 2015 COO, Group Internal Audit, UBS
- 2005 – 2006 Head Global Reporting & Controlling, Global Asset Management, UBS
- 2002 – 2004 Head Management Support CEO EMEA, Global Asset Management, UBS
- 1998 – 2002 COO EMEA, Global Asset Management, UBS
- 1979 – 1997 Various positions, Union Bank of Switzerland

Education

- Swiss Federal Diploma as a Business Analyst
- MBA, INSEAD Fontainebleau

- Member of the Board Risk Committee of GIC Pte Ltd
- Member of the Board of Jurong Town Corporation
- Member of the Board of PSA International

Other activities and functions

- Chairman of the CareShield Life Council
- Member of the Securities Industry Council
- Member of the Board of Trustees of the National University of Singapore

Key competencies

- Banking (wealth management, asset management, personal and corporate banking) and insurance
- Investment banking, capital markets
- Finance, audit, accounting
- ESG (environmental, social and governance)

Leadership experience

- Executive board leadership

Elections and terms of office

Shareholders annually elect each member of the BoD individually, as well as the Chairman and the members of the Compensation Committee, based on proposals from the BoD.

As set out in the Organization Regulations, BoD members are normally expected to serve for at least three years. BoD members are limited to serving for a maximum of 10 consecutive terms of office; in exceptional circumstances, the BoD may extend that limit.

- **Refer to “Skills, expertise and training of the Board of Directors” in this section for more information**

Organizational principles and structure

Following each AGM, the BoD meets to appoint one or more Vice Chairmen, a Senior Independent Director, the BoD committee members (other than the Compensation Committee members, who are elected by the shareholders) and the respective committee Chairpersons. At the same meeting, the BoD appoints the Group Company Secretary, who, pursuant to the Organization Regulations, acts as secretary to the BoD and its committees.

Pursuant to the AoA and the Organization Regulations, the BoD meets as often as business requires, but it must meet at least six times a year. During the height of the COVID-19 pandemic, BoD meetings were mainly organized as video calls, with few exceptions. Based on the experiences during the pandemic, the BoD decided to adopt a split approach for 2022 and going forward. In 2022, half of the meetings were held in person. During 2022, a total of 31 BoD meetings were held, 15 of which were attended by GEB members. Average participation in the BoD meetings was 98%. In addition to the BoD meetings attended by GEB members, the Group CEO regularly attended some of the meetings of the BoD without the participation of other GEB members. The meetings had an average duration of 95 minutes and covered both UBS Group AG and UBS AG. Additionally, six ad hoc calls were held. The BoD held a two-day strategy workshop, which included deep dives on each business division and geographical region, and focused on the execution against the strategy defined in 2021. A separate one-day strategy deep dive was held with a specific focus on the Asia Pacific region.

At the BoD meetings, each committee Chairperson provides the BoD with an update on current activities of his or her committee and important committee issues.

In 2022, four UBS AG BoD meetings were held with members of the Executive Board in attendance. These standalone meetings are held regularly to discuss and agree on finance, risk, compliance, operational risk, regulatory and other topics related to UBS AG.

We also continued with the coordination and exchange of information between UBS Group AG and its significant group entities. Joint meetings between the BoD of UBS Group AG and the boards of directors of the significant group entities, as well as between the respective chairs of the risk and audit committees, have been held. As in prior years, an annual workshop, attended by independent members of the boards of the Group and significant group entities, was held.

Performance assessment

Every third year, an external assessment of the effectiveness of the BoD is conducted. In 2022, this review concluded that the UBS BoD and committees operate effectively, in line with best practice, and set a high standard in comparison with leading international peers. The review also confirmed that the BoD agenda covers all important and relevant topics and that these are addressed professionally and in great depth. It further found that the BoD members are independent, highly committed and of the highest integrity, and that the Chairman provides effective leadership and direction. The review emphasized that the cooperation between the BoD and the GEB is based on mutual trust, respect and constructive dialogue. The mix of expertise in the BoD is broad-based and the quality of BoD members is high. The BoD and GEB have responded well to the economic environment, including successfully managing the firm through the COVID-19 pandemic and other significant challenges, while maintaining an appropriate focus on control and regulatory issues. The review highlighted the successful CEO transition and onboarding, and the well-planned and professionally executed Chairman succession process. No significant weaknesses were identified in the review; maintaining a balanced agenda that provides sufficient room for each business performance, strategic review and growth initiatives was the main area recommended for further focus. In spring 2023, the performance assessment will be conducted in-house with a lengthy questionnaire.

BoD committees

The committees listed below assist the BoD in fulfilling the performance of its responsibilities. These committees and their charters are described in our Organization Regulations, available at ubs.com/governance. The committees meet as often as their business requires, but no less than four times a year in the case of the Audit Committee, the Risk Committee and the Compensation Committee, and no less than twice a year in the case of the Corporate Culture and Responsibility Committee (the CCRC) and the Governance and Nominating Committee. Topics of common interest or affecting more than one committee are discussed at joint committee meetings.

During 2022, a total of eight joint committee meetings were held for UBS Group AG (five joint committee meetings were held simultaneously for UBS AG). The Audit Committee met four times with the Risk Committee and twice with the CCRC. The Risk Committee met once with the CCRC and once with the Compensation Committee.

Board of Directors

Members in 2022	Meeting attendance without GEB ³		Meeting attendance with GEB	
	Attended	%	Attended	%
Axel A. Weber, Chairman ¹	2/2	100%	2/2	100%
Colm Kelleher, Chairman ²	14/14	100%	13/13	100%
Lukas Gähwiler ²	14/14	100%	13/13	100%
Jeremy Anderson	16/16	100%	15/15	100%
Claudia Böckstiegel	16/16	100%	15/15	100%
William C. Dudley	16/16	100%	15/15	100%
Patrick Firmenich	16/16	100%	15/15	100%
Reto Francioni ¹	2/2	100%	2/2	100%
Fred Hu	14/16	88%	14/15	93%
Mark Hughes	16/16	100%	15/15	100%
Nathalie Rachou	16/16	100%	15/15	100%
Julie G. Richardson	15/16	94%	15/15	100%
Dieter Wemmer	15/16	94%	15/15	100%
Jeanette Wong	16/16	100%	15/15	100%

- ¹ Axel A. Weber and Reto Francioni did not stand for re-election at the 2022 AGM; indicated are their attended and total meetings up to the 2022 AGM.
- ² Colm Kelleher was elected as Chairman and Lukas Gähwiler to the Board at the 2022 AGM; indicated are their attended and total meetings after their election.
- ³ Additionally, six calls took place in 2022.

Audit Committee

Throughout 2022, the Audit Committee consisted of four independent BoD members. All Audit Committee members have accounting or related financial management expertise and, in compliance with the rules established pursuant to the 2002 US Sarbanes–Oxley Act, at least one member qualifies as a financial expert. The NYSE standards on corporate governance and Rule 10A-3 under the US Securities Exchange Act set more stringent independence requirements for members of audit committees than for the other members of the BoD. Throughout 2022, all members of the Audit Committee, in addition to satisfying our independence criteria, satisfied these requirements, in that they did not receive, directly or indirectly, any consulting, advisory or compensatory fees from any member of the Group other than in their capacity as a BoD member, did not hold, directly or indirectly, UBS Group AG shares in excess of 5% of the outstanding capital, and did not serve on the audit committees of more than two other public companies.

During 2022, the Audit Committee held 12 committee meetings, with a participation rate of 100%. The meetings had an average duration of approximately 135 minutes and covered both UBS Group AG and UBS AG. Additional attendees included the Group CFO, the Group Controller and Chief Accounting Officer, the Head Group Internal Audit (GIA), and the external auditors. The Chairman of the BoD, the Vice Chairman and the Group CEO attended most meetings. The Chairperson and the committee continued to maintain regular contact with core supervisory authorities.

Audit Committee

Members in 2022	Meeting attendance	
	Attended	%
Jeremy Anderson (Chairperson)	12/12	100%
Patrick Firmenich	12/12	100%
Dieter Wemmer	12/12	100%
Jeanette Wong	12/12	100%

Key responsibilities include:

The Board has ultimate responsibility for the success of the Group and for delivering sustainable shareholder value within a framework of prudent and effective controls. It decides on the Group's strategy and the necessary financial and human resources upon recommendation of the Group CEO and sets the Group's values and standards to ensure that its obligations to shareholders and other stakeholders are met.

- **Refer to the Organization Regulations of UBS Group AG, available at ubs.com/governance, for more information**

Key responsibilities include:

The function of the Audit Committee is to support the Board in fulfilling its oversight duty relating to financial reporting and internal controls over financial reporting, the effectiveness of the external and internal audit functions, and the effectiveness of whistleblowing procedures.

Management is responsible for the preparation, presentation and integrity of the financial statements, while the external auditors are responsible for auditing financial statements. The Audit Committee's responsibility is one of oversight and review.

- **Refer to the Organization Regulations of UBS Group AG, available at ubs.com/governance, for more information**

Compensation Committee

In 2022, the Compensation Committee consisted of four independent members before the AGM and three independent members after the AGM. In addition to the key responsibilities indicated in the same table, the Compensation Committee reviews the compensation disclosures included in this report.

During 2022, the Compensation Committee held eight meetings, with a participation rate of 100%. The meetings had an average duration of approximately 70 minutes and covered both UBS Group AG and UBS AG. All meetings were held in the presence of the Chairman and the Group CEO and most were attended by external advisors. In 2022, the Chairperson met regularly with core supervisory authorities.

- **Refer to “Compensation for the Board of Directors” in the “Compensation” section of this report for more information about the Compensation Committee’s decision-making procedures**

Compensation Committee

<u>Members in 2022</u>	<u>Meeting attendance²</u>	
Julie G. Richardson (Chairperson)	8/8	100%
Reto Francioni ¹	2/2	100%
Dieter Wemmer	8/8	100%
Jeanette Wong	8/8	100%

Key responsibilities include:

The Compensation Committee is responsible for:

- supporting the Board in its duties to set guidelines on compensation and benefits;
- approving the total compensation for the Chairman and the non-independent Board members;
- proposing, upon proposal of the Chairman, financial and non-financial performance targets and objectives for the Group CEO for approval by the Board and reviewing, upon the proposal of the Group CEO, the performance framework for the other GEB members;
- proposing, upon proposal of the Chairman, the Group CEO’s performance assessment for approval by the Board, as well as informing the Board of the performance assessments of all GEB members, including the Group CEO;
- proposing, upon proposal of the Chairman, the total compensation for the Group CEO for approval by the Board; and
- proposing, upon proposal of the Group CEO, the individual total compensation for the other GEB members for approval by the Board.

- **Refer to the Organization Regulations of UBS Group AG, available at ubs.com/governance, for more information**

¹ Reto Francioni did not stand for re-election at the 2022 AGM; indicated are his attended and total meetings up to the 2022 AGM

² Additionally, the Compensation Committee held one ad hoc call.

Corporate Culture and Responsibility Committee

In 2022, the CCRC consisted of the Chairperson and four independent BoD members. The Group CEO, the Group Chief Risk Officer, the President Asset Management and GEB Lead for Sustainability and Impact, the Group General Counsel and the Chief Sustainability Officer are permanent guests of the CCRC. During 2022, six meetings were held, with a participation rate of 100%. The average duration of each of the meetings was approximately 85 minutes.

Corporate Culture and Responsibility Committee

<u>Members in 2022</u>	<u>Meeting attendance</u>	
Axel A. Weber (Chairperson) ¹	2/2	100%
Colm Kelleher (Chairperson) ²	4/4	100%
Claudia Böckstiegel ²	4/4	100%
William C. Dudley	6/6	100%
Patrick Firmenich	6/6	100%
Mark Hughes	6/6	100%
Jeanette Wong ¹	2/2	100%

Key responsibilities include:

The CCRC supports the Board in its duties to safeguard and advance the Group’s reputation for responsible and sustainable conduct. Its function is forward-looking in that it monitors and reviews societal trends and transformational developments and assesses their potential relevance for the Group.

In undertaking this assessment, it reviews stakeholder concerns and expectations pertaining to the societal performance of UBS and to the

development of its corporate culture. The CCRC's function also encompasses the monitoring of the current state and implementation of the programs and initiatives within the Group pertaining to corporate culture and corporate responsibility, including sustainability.

- **Refer to the Organization Regulations of UBS Group AG, available at ubs.com/governance, for more information**

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- ¹ Axel A. Weber did not stand for re-election and Jeannette Wong stepped down from this committee at the 2022 AGM; indicated are their attended and total meetings up to the 2022 AGM.
 - ² Colm Kelleher became Chairman and Claudia Böckstiegel member of this committee; indicated are their attended and total meetings after election.

Governance and Nominating Committee

In 2022, the Governance and Nominating Committee consisted of, in addition to the Chairperson, five independent members before the AGM and three independent members after the AGM. During 2022, six meetings were held, with a participation rate of 100%. The average duration of each of the meetings was approximately 60 minutes. The Group CEO attended meetings as appropriate.

Governance and Nominating Committee

Members in 2022	Meeting attendance ³	
Axel A. Weber (Chairperson) ¹	2/2	100%
Colm Kelleher (Chairperson) ²	4/4	100%
Jeremy Anderson	6/6	100%
William C. Dudley ¹	2/2	100%
Fred Hu	6/6	100%
Nathalie Rachou ²	4/4	100%
Julie G. Richardson ¹	2/2	100%
Dieter Wemmer ¹	2/2	100%

Key responsibilities include:

The function of the Governance and Nominating Committee is to support the Board in fulfilling its duty to establish best practices in corporate governance across the Group, including conducting a Board assessment, establishing and maintaining a process for appointing new Board and GEB members, as well as for the annual performance assessment of the Board.

- **Refer to the Organization Regulations of UBS Group AG, available at ubs.com/governance, for more information**

- ¹ Axel A. Weber did not stand for re-election; William Dudley, Julie G. Richardson and Dieter Wemmer stepped down from this committee at the 2022 AGM; indicated are their attended and total meetings up to the 2022 AGM.
- ² Colm Kelleher became Chairman and Nathalie Rachou member of this committee; indicated are their attended and total meetings after election.
- ³ Additionally, the Governance and Nominating Committee held one ad hoc call.

Risk Committee

In 2022, the Risk Committee consisted of six independent members before the AGM and four independent members after the AGM. During 2022, the Risk Committee held 12 committee meetings, with a participation rate of 100%. The average duration of each of the meetings was approximately 145 minutes, covering both UBS Group AG and UBS AG. The Chairman of the BoD, the Vice Chairman, the Group CEO, the Group CFO, the Group Chief Risk Officer, the Group Chief Digital and Information Officer, the Group Treasurer, the Group Chief Compliance and Governance Officer, the Group General Counsel, the Head GIA, and the external auditors attended the meetings. In 2022, the Chairperson or the full committee met with core supervisory authorities.

Risk Committee

Members in 2022	Meeting attendance	
Mark Hughes (Chairperson)	12/12	100%
William C. Dudley	12/12	100%
Reto Francioni ¹	3/3	100%
Fred Hu ¹	3/3	100%
Nathalie Rachou	12/12	100%
Julie G. Richardson	12/12	100%

Key responsibilities include:

The function of the Risk Committee is to oversee and support the Board in fulfilling its duty to set and supervise an appropriate risk management and control framework in the areas of:

- financial and non-financial risks;
 - balance sheet, treasury and capital management, including funding, liquidity and equity attribution.
- **Refer to the Organization Regulations of UBS Group AG, available at ubs.com/governance, for more information**

- ¹ Reto Francioni did not stand for re-election and Fred Hu stepped down from this committee at the 2022 AGM; indicated are their attended and total meetings up to the 2022 AGM.

Ad hoc committees

The Special Committee and the Strategy Committee are two ad hoc committees, which have a standing composition and hold meetings as and when required.

Leading up to the 2022 AGM, the Special Committee was chaired by Jeremy Anderson, with Claudia Böckstiegel, Nathalie Rachou, Julie G. Richardson and Axel A. Weber as its members; after the AGM, Colm Kelleher and Lukas Gähwiler joined the Special Committee and Axel A. Weber stepped down from the BoD. Its primary purpose is to oversee activities related to key litigation and investigation matters, review management's respective proposals and provide to the BoD recommendations for decisions. In 2022, the main focus was the French cross-border matter. The Group CEO and the Group General Counsel are permanent guests of the Special Committee. During 2022, two meetings of the Special Committee were held, covering both UBS Group AG and UBS AG.

Leading up to the 2022 AGM, the Strategy Committee was chaired by Axel A. Weber, with William C. Dudley, Fred Hu and Dieter Wemmer as its members; after the AGM, Colm Kelleher replaced Axel A. Weber (who stepped down from the BoD) as the chair and Julie G. Richardson also joined the Strategy Committee. The primary purpose of this committee is to support management and the BoD with regard to the assessment of strategic considerations and to prepare decisions on behalf of the BoD. During 2022, four meetings of the Strategy Committee were held, covering both UBS Group AG and UBS AG. The Group CEO and other members of the GEB and management participated in these meetings as required.

Roles and responsibilities of the Chairman of the Board of Directors

At the 2022 AGM, Axel A. Weber stepped down and Colm Kelleher was elected as the full-time Chairman of the BoD. The Chairman coordinates tasks within the BoD, calls BoD meetings and sets their agendas. He presides over all general meetings of shareholders, chairs the Governance and Nominating Committee, as well as the CCRC, and works with the committee Chairpersons to coordinate the work of all BoD committees. Together with the Group CEO, the Chairman undertakes responsibility for UBS's reputation, and is responsible for effective communication with shareholders and other stakeholders, including government officials, regulators and public organizations. This is in addition to establishing and maintaining close working relationships with the Group CEO and other GEB members, and providing advice and support when appropriate.

- **Refer to “Employees” in the “How we create value for our stakeholders” section of this report for information about our Pillars, Principles and Behaviors**

In 2022, the respective Chairman in office met regularly with core supervisory authorities of all major locations where UBS is active. Meetings with important supervisory authorities were scheduled on an ad hoc or needs-driven basis.

Roles and responsibilities of the Vice Chairmen and the Senior Independent Director

The BoD appoints one or more Vice Chairmen and a Senior Independent Director. If the BoD appoints more than one Vice Chairman, at least one of them must be independent. Both the Vice Chairman and the Senior Independent Director support the Chairman with regard to his responsibilities and authorities and provide him with advice. In conjunction with the Chairman and the Governance and Nominating Committee, they facilitate good Group-wide corporate governance, as well as balanced leadership and control within the Group, the Board and the committees.

Lukas Gähwiler was appointed as Vice Chairman following the 2022 AGM. Jeremy Anderson has been the Senior Independent Director since 2020. The Vice Chairman is required to lead meetings of the BoD in the temporary absence of the Chairman. Together with the Governance and Nominating Committee, either one of them is tasked with the ongoing monitoring and the annual evaluation of the Chairman. The Vice Chairman also represents UBS on behalf of the Chairman in meetings with internal or external stakeholders. In particular, he represents UBS across a broad range of associations and industry bodies in Switzerland.

The Senior Independent Director enables and supports communication and the flow of information among the independent BoD members. At least twice a year, he organizes and leads a meeting of the independent BoD members without the participation of the Chairman. In 2022 and in early 2023, two independent BoD meetings were held, covering both UBS Group AG and UBS AG, with an average participation rate of 85% and an average duration of approximately 105 minutes. The Senior Independent Director also relays to the Chairman any issues or concerns raised by the independent BoD members and acts as a point of contact for shareholders and stakeholders seeking discussions with an independent BoD member.

Important business connections of independent members of the Board of Directors

As a global financial services provider and a major Swiss bank, we enter into business relationships with many large companies, including some in which our BoD members have management or independent board responsibilities. The Governance and Nominating Committee determines in each instance whether the nature of the Group's business relationship with such a company might compromise our BoD members' capacity to express independent judgment.

Our Organization Regulations require three-quarters of the UBS Group AG BoD members and one-third of those at UBS AG to be independent. For this purpose, independence is determined in accordance with FINMA Circular 2017/1 “Corporate governance – banks” and the NYSE rules.

In 2022, our BoD met the standards of the Organization Regulations for the percentage of directors who are considered independent under the criteria described above. Axel Weber, who served as Chairman of the Board until the Annual General Meeting on 6 April 2022, had a full-time contract with UBS Group AG and was not considered independent. Our Vice Chairman, Lukas Gähwiler, previously had a full-time contract with UBS Switzerland AG and, therefore, is currently not considered independent according to the regulatory independence rules. No current BoD member has either an employment contract or a significant business connection to UBS or any of its subsidiaries. Except for the Vice Chairman, no BoD member currently carries out, or has carried out over the past three years, any operational management tasks within the Group.

All relationships and transactions with UBS Group AG's independent BoD members are conducted in the ordinary course of business and are on the same terms as those prevailing at the time for comparable transactions with non-affiliated persons. All relationships and transactions with BoD members' associated companies are conducted at arm's length.

- **Refer to “Note 30 Related parties” in the “Consolidated financial statements” section on of this report for more information**

Checks and balances: Board of Directors and Group Executive Board

We operate under a strict dual board structure, as mandated by Swiss banking law. The separation of responsibilities between the BoD and the GEB is clearly defined in the Organization Regulations. The BoD decides on the strategy of the Group, upon recommendations by the Group CEO, and exercises ultimate supervision over management; whereas the GEB, headed by the Group CEO, has executive management responsibility. The functions of Chairman and Group CEO are assigned to two different people, leading to a separation of powers. This structure establishes checks and balances and preserves the institutional independence of the BoD from the executive management of the Group, for which responsibility is delegated to the GEB, under the leadership of the Group CEO. No member of one board may simultaneously be a member of the other.

Supervision and control of the GEB remain with the BoD. The authorities and responsibilities of the two bodies are governed by the AoA and the Organization Regulations.

Skills, expertise and training of the Board of Directors

At present, the BoD is well-diversified and composed of members with a broad spectrum of skills, educational backgrounds, experience, and expertise from a range of sectors that reflect the nature and scope of the firm's business. The Governance and Nominating Committee maintains a competencies and experience matrix to identify gaps in the competencies considered most relevant to the BoD, taking into consideration the firm's business exposure, risk profile, strategy and geographic reach.

In recent years, the composition of the BoD has been systematically rebuilt along the identified requirements. The appointment of a new Chairman and Vice Chairman in 2022 completed this process. As a result, no nominations are submitted for a vote at the AGM in 2023. Nevertheless, a list of potential candidates is prepared and updated regularly by UBS Group AG.

We asked our BoD members to select their four key competencies from the following eight categories and to indicate whether they have ever been a CEO or chairperson of a listed company or a member of the executive board of such a company:

Key competencies

- banking (wealth management, asset management, personal and corporate banking) and insurance
- investment banking, capital markets
- finance, audit, accounting
- risk management, compliance and legal
- human resources management, including compensation
- technology, cybersecurity
- regulatory authority, central bank
- environmental, social and governance (ESG)

Leadership experience

- experience as a CEO or chairperson
- executive board leadership experience (e.g., as CFO, chief risk officer or COO of a listed company)

The Governance and Nominating Committee reviews these categories and ratings annually to confirm that the BoD continues to possess the most relevant experience and competencies to perform its duties.

With regard to the composition of the BoD after the 2022 AGM, the members thereof identified all of the target competencies as being their key competencies. Particularly strong levels of experience and expertise existed in these areas:

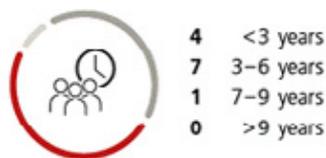
- financial services
- risk management, compliance and legal
- finance, audit, accounting

Furthermore, 10 of the 12 BoD members have held or currently hold chairperson, CEO or other executive board-level leadership positions.

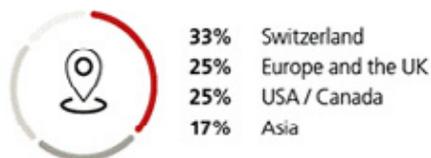
Moreover, education remained an important priority for our BoD members. In addition to a comprehensive induction program for new BoD members, continuous training and topical deep dives are part of the BoD agenda.

- **Refer to “Risk governance” in the “Risk management and control” section of this report for information about our risk governance framework**

Terms of office¹



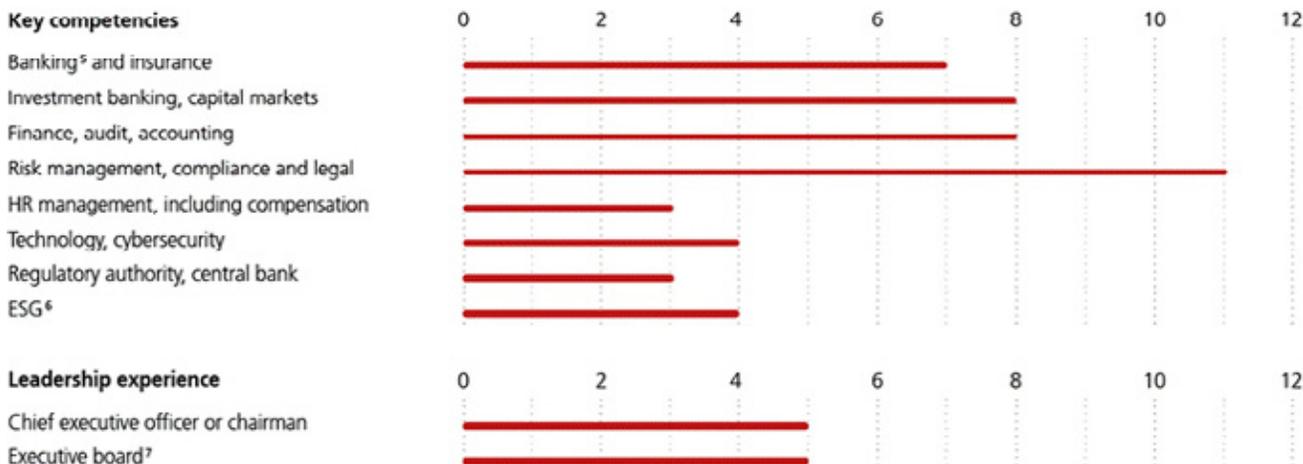
Geographic diversity²



Gender³



Competencies and experience⁴



¹ Terms of office until the 2023 AGM. ² In the case of dual-nationals, the domicile applies. ³ In accordance with the 30% gender quota of the revised Swiss Corporate Law. ⁴ The number of BoD members identifying a key competency as one of his / her key competencies; each member identified up to four key competencies (although not every sub-area of the respective competency might be applicable), plus one leadership experience. ⁵ Wealth management, asset management, and personal and corporate banking. ⁶ Environmental, social and governance. ⁷ For example, a CFO, chief risk officer or COO of a listed company.

Succession planning

Succession planning is one of the key responsibilities of both the BoD and the GEB. Across all divisions and regions, an inclusive talent development and succession planning process is in place that aims to foster the personal development and Group-wide mobility of our employees. Although the recruiting process for BoD and GEB members takes into account a broad spectrum of factors, such as skills, backgrounds, experience and expertise, our approach with regard to diversity considerations does not constitute a diversity policy within the meaning of the EU Directive on Non-Financial Reporting, and Swiss law does not require UBS to maintain such a policy.

In 2022, the GEB launched several strategic initiatives with the close involvement of the BoD and with the aim of further strengthening internal succession planning at UBS. This included the early identification of talents and their systematic development, including international and cross-divisional rotations. The succession plans for the GEB and the management layers below it are managed under the lead of the Group CEO and are reviewed and approved by the BoD.

For the BoD, the Chairman leads a systematic succession planning process as illustrated in the chart below.

Our strategy and the business environment constitute the main drivers in our succession planning process for new BoD members, as they define the key competencies required on the BoD. Taking the diversity and the tenure of the existing BoD into account, the Governance and Nominating Committee defines the recruiting profile for the search. Both external and internal sources contribute to identifying suitable candidates. The Chairman and the members of the Governance and Nominating Committee meet with potential candidates and, with the support of the full BoD, nominations are submitted to the AGM for approval. New BoD members follow an in-depth onboarding process designed to enable them to integrate efficiently and become effective in their new role. Due to this succession planning process, the composition of the BoD is in line with the demanding requirements of a leading global financial services firm.

The smooth and effective succession of both the CEO and Chairman, as well as that of new GEB members, demonstrates the strength and success of succession planning at UBS.



Information and control instruments with regard to the Group Executive Board

The BoD is kept informed of the GEB's activities in various ways, including regular meetings between the Chairman, the Group CEO and GEB members. The Group CEO and other GEB members also participate in BoD meetings to update its members on all significant issues. The BoD receives regular comprehensive reports covering financial, capital, funding, liquidity, regulatory, compliance and legal developments, as well as performance against plan and forecasts for the remainder of the year. For important developments, BoD members are also updated by the GEB in between meetings. In addition, the Chairman receives the meeting material and minutes of the GEB meetings.

BoD members may request from other BoD or GEB members any information about matters concerning the Group that they require in order to fulfill their duties. When these requests are raised outside BoD meetings, such requests must go through the Group Company Secretary and be addressed to the Chairman.

The BoD is supported in discharging its governance responsibilities by GIA, which independently assesses whether risk management, control and governance processes are designed and operating sustainably and effectively.

The Head GIA reports directly to the Chairman. In addition, GIA has a functional reporting line to the Audit Committee in accordance with its responsibilities as set forth in our Organization Regulations. The Audit Committee assesses the independence and performance of GIA and the effectiveness of both the Head GIA and GIA as an organization, approves GIA's annual audit plan and objectives and monitors GIA's discharge of these objectives.

The committee is also in regular contact with the Head GIA. GIA issues quarterly reports that provide an overview of significant audit results and key issues, as well as themes and trends, based on results of individual audits, continuous risk assessment and issue assurance. The reports are provided to the Chairman, the members of the Audit and the Risk Committees, the GEB and other stakeholders. The Head GIA regularly updates the Chairman and the Audit Committee on GIA's activities, processes, audit plan execution, resourcing requirements and other important developments. GIA issues an annual Activity Report, which is provided to the Chairman and the Audit Committee to support their assessment of GIA's effectiveness.

- **Refer to "Group Internal Audit" in this section for more information**
- **Refer to "Internal risk reporting" in the "Risk management and control" section of this report for information about reporting to the BoD**

Group Executive Board

The BoD delegates the management of the business to the Group Executive Board (the GEB).

Responsibilities, authorities and organizational principles of the Group Executive Board

As of 31 December 2022, the GEB, under the leadership of the Group CEO, consisted of 12 members. It has executive management responsibility for the steering of the Group and its business, develops the strategies of the Group, business divisions and Group Functions, and implements the BoD-approved strategies. The GEB is also the risk council of the Group, with overall responsibility for establishing and supervising the implementation of risk management and control principles, as well as for managing the risk profile of the Group, as determined by the BoD and the Risk Committee.

In 2022, the GEB held a total of 74 meetings for UBS Group AG.

At UBS AG, management of the business is also delegated, and its Executive Board, under the leadership of its President, has executive management responsibility for UBS AG and its business. All members of the GEB are members of UBS AG's Executive Board, with the exception of Sabine Keller-Busse, who serves as President UBS Switzerland AG. The Executive Board held 74 combined meetings with the GEB and four standalone meetings for UBS AG in 2022.

- **Refer to the Organization Regulations of UBS Group AG, available at ubs.com/governance, for more information about the authorities of the Group Executive Board**

Changes to the Group Executive Board

Effective 16 May 2022, Kirt Gardner stepped down and Sarah Youngwood succeeded him as Group CFO, having joined the GEB on 1 March 2022. Formerly, she was CFO of JPMorgan Chase's Consumer & Community Banking line of business.

Effective 3 October 2022, Tom Naratil stepped down as Co-President Global Wealth Management and President UBS Americas and Naureen Hassan joined UBS as a GEB member with functions of President UBS Americas and CEO of UBS Americas Holding LLC. Ms. Hassan was most recently First Vice President and Chief Operating Officer of the Federal Reserve Bank of New York, where she was responsible for technology, operations, finance, risk and HR, and led the New York Fed's agile transformation. Iqbal Khan became sole President Global Wealth Management on the same date.

On 8 November 2022, UBS announced that Christian Bluhm will step down from his role as Group Chief Risk Officer on 30 April 2023. Damian Vogel will join the GEB on 1 May 2023 and will take over as Group Chief Risk Officer. Mr. Vogel is currently Chief Risk Officer for UBS's Global Wealth Management business division.

The biographies on the following pages provide information about the GEB members in office as of 31 December 2022. The biographies of Kirt Gardner and Tom Naratil can be found on pages 212 and 216 of the UBS Group AG Annual Report 2021, available under "Annual reporting" at ubs.com/investors. In addition to information on mandates, the biographies include memberships and other activities or functions, as required by the SIX Swiss Exchange Corporate Governance Directive.

In line with Swiss law, article 36 of our AoA limits the number of mandates that GEB members may hold outside UBS Group to one mandate in a listed company and five additional mandates in non-listed companies. Mandates in companies that are controlled by UBS or that control UBS are not subject to this limitation. In addition, GEB members may not hold more than 10 mandates at one time at the request of the company and more than eight mandates in associations, charitable organizations, foundations, trusts and employee welfare foundations. On 31 December 2022, no member of the GEB reached the aforementioned thresholds.

Responsibilities and authorities of the Asset and Liability Committees

The Asset and Liability Committees (the ALCOs) of UBS Group AG and UBS AG are sub-committees of the GEB and the Executive Board that are responsible for managing assets and liabilities in line with the strategy, risk appetite, regulatory commitments and the interests of shareholders and other stakeholders. The ALCO of UBS Group AG proposes the framework for capital management, capital allocation, and liquidity and funding risk, and proposes limits and indicators for the Group to the BoD for approval. It oversees the balance sheet management of the Group, its business divisions and Group Functions. In 2022, the ALCOs of UBS Group AG and UBS AG held 10 meetings.

Management contracts

We have not entered into management contracts with any companies or natural persons that do not belong to the Group.



Ralph Hamers

Group Chief Executive Officer, member of the GEB since 2020

Nationality: Dutch | **Year of birth:** 1966

Ralph Hamers has been Group CEO of UBS Group AG and President of the Executive Board of UBS AG since November 2020, after joining UBS as Group Executive Board member in September 2020. Mr. Hamers is committed to ensuring that our firm is positioned to evolve with our clients and the larger world. He has led work to transform our firm for the future, with our Group-wide strategy and newly defined purpose launched in April 2021. Prior to joining UBS, Mr. Hamers was CEO and Chairman of the Executive Board of ING Group, where he spent over 30 years of his career. During his time as CEO of ING, he steered the bank to profitability after the financial crisis and supported the firm’s digital transformation. Mr. Hamers has played a leading role in driving efforts in areas such as digital disruption and sustainability.

Professional experience

- 2020 – date Group CEO, UBS Group AG, and President of the Executive Board, UBS AG
- 2013 – 2020 CEO and Chairman of the Executive Board, ING Supervisory Board member of NN Group (2014 – 2015); Chairman Management Board Banking (2013 – 2020) and Chairman Management Board Insurance (2013 – 2014)
- 2011 – 2013 CEO of ING Belgium and Luxembourg, ING
- 2010 – 2011 Head of Network Management for Retail Banking Direct & International, ING
- 2007 – 2010 Global Head of the Commercial Banking network, ING
- 2005 – 2007 CEO of ING Bank Netherlands, ING
- 2002 – 2005 General Manager of the ING Bank branch network, ING

Education

- Master’s degree, business econometrics and operations research, Tilburg University, Netherlands

Other activities and functions

- Member of the Board of the Swiss-American Chamber of Commerce
- Member of the Institut International d’Etudes Bancaires
- Member of the IMD Foundation Board
- Member of the McKinsey Advisory Council



Christian Bluhm

Group Chief Risk Officer, member of the GEB since 2016

Nationality: German | **Year of birth:** 1969

Christian Bluhm has been Group Chief Risk Officer since 2016. He held several positions in academia before starting his banking career in 1999 with Deutsche Bank in credit risk management, and subsequently working for Hypovereinsbank and Credit Suisse in the same area. Before joining UBS, he used his expertise and skills as Chief Risk & Financial Officer at FMS Wertmanagement. Mr. Bluhm is responsible for the development of the Group’s risk management and control framework for various risk categories and implementation of its independent control frameworks.

Professional experience

- 2016 – date Group Chief Risk Officer, UBS Group AG, and Chief Risk Officer, UBS AG
- 2012 – 2015 Spokesman of the Executive Board, FMS Wertmanagement
- 2010 – 2015 Chief Risk & Financial Officer, FMS Wertmanagement
- 2004 – 2009 Managing Director, Credit Risk Management (Switzerland and Private Banking worldwide), Credit Suisse
- 2008 – 2009 Head Credit Risk Management Analytics & Instruments, Credit Suisse
- 2004 – 2008 Head of Credit Portfolio Management, Credit Suisse
- 2001 – 2004 Head Structured Finance Analytics, Group Credit Portfolio Management, Hypovereinsbank

Education

- Master’s degree, mathematics and informatics, and doctorate, mathematics, University of Erlangen-Nuremberg, Germany

Non-listed company boards

- Chairman of the Board of Christian Bluhm Photography AG

Other activities and functions

- Member of the Board of UBS Switzerland AG
- Member of the Foundation Board of the UBS Pension Fund
- Member of the Foundation Board International Financial Risk Institute

- Member of the World Economic Forum International Business Council
- Governor of the Financial Services / Banking Community of the World Economic Forum
- Member of the International Advisory Panel, Monetary Authority of Singapore
- Member of the Board of the Institute of International Finance



Mike Dargan

Group Chief Digital and Information Officer, member of the GEB since 2021

Nationality: British | **Year of birth:** 1977

Mike Dargan was appointed Group Chief Digital and Information Officer (CDIO) in May 2021 after leading our Group Technology function since joining UBS in 2016. In addition to his CDIO remit, where he oversees global functions such as technology and corporate services, he is also Group Executive Board sponsor for our firm’s digital assets strategy and a co-sponsor of both our AI, Data and Analytics center of expertise (along with Robert Karofsky) and our agile transformation. Prior to joining UBS, Mr. Dargan held various senior roles in technology, corporate strategy and investment banking at Standard Chartered Bank, Merrill Lynch and Oliver Wyman.

Professional experience

May 2021 – date	Group CDIO, UBS Group AG, and CDIO, UBS AG
Oct. 2021 – date	President of the Executive Board, UBS Business Solutions AG
2016 – 2021	Head Group Technology, UBS
2015 – 2016	CIO for Corporate and Institutional Banking, Standard Chartered Bank
2014 – 2015	Global Group Technology and Operations Head for Global Markets, Wealth Management, Private Banking and Securities Services, Group Technology and Operations Engineering, Standard Chartered Bank
2013 – 2014	CIO for Financial Markets, Standard Chartered Bank
2009 – 2013	Global Head of Strategy and Corporate M&A, Global Markets, Standard Chartered Bank
2005 – 2009	Head Corporate Strategy & M&A, EMEA and Pacific Rim, Merrill Lynch

Education

- Master’s degree, politics, philosophy and economics, St. John’s College, University of Oxford

Non-listed company boards

- Member of the Board of Directors of Done Next Holdings AG



Suni Harford

President Asset Management, member of the GEB since 2019

Nationality: American (US) | **Year of birth:** 1962

Suni Harford was appointed President Asset Management in 2019 and is the Chair of UBS Optimus Foundation. Ms. Harford has been the UBS GEB Lead for Sustainability and Impact since May 2021. She started her Wall Street career at Merrill Lynch & Co., in investment banking, before embarking on a 24-year career at Citigroup Inc., the last nine years of which she was the Regional Head of Markets for North America. Ms. Harford joined UBS in 2017, bringing with her a broad experience from across the industry, including in research, client coverage and risk management, and successfully led UBS Asset Management’s integrated investments capabilities, driving performance for its clients.

Professional experience

2019 – date	President Asset Management, UBS Group AG and UBS AG
2017 – 2019	Head of Investments, Asset Management, UBS
2008 – 2017	Regional Head of Markets for North Americas, Citigroup Inc.
2004 – 2008	Global Head of Fixed Income Research, Citigroup Inc.

Education

- Bachelor’s degree, physics and mathematics, Denison University, Ohio
- MBA, Tuck School of Business, Dartmouth College, New Hampshire

Other activities and functions

- Chairman of the Board of Directors of UBS Asset Management AG
- Chair of the Board of UBS Optimus Foundation
- Member of the Leadership Council of the Bob Woodruff Foundation

Other activities and functions

- Member of the Board of UBS Business Solutions AG
- Member of the Board of UBS Optimus Foundation
- Member of the Board of Trustees of the Inter-Community School Zurich



Naureen Hassan

President UBS Americas, member of the GEB since October 2022

Nationality: American (US) | **Year of birth:** 1971

Naureen Hassan was appointed President UBS Americas and CEO of UBS Americas Holding LLC in October 2022. She joined UBS from the Federal Reserve Bank of New York, where she was COO and First Vice President. After starting her career at McKinsey & Company, Ms. Hassan held various business transformation, strategy, and client experience leadership roles at Charles Schwab Corporation. As Chief Digital Officer at Morgan Stanley Wealth Management, she led the digital strategy and executed digital transformation of the wealth management business to improve client experience and financial advisor effectiveness and efficiency.

Professional experience

Oct. 2022 – date	President UBS Americas, UBS Group AG and UBS AG CEO, UBS Americas Holding LLC
2021 – Sept. 2022	First Vice President and COO, Federal Reserve Bank of New York
2016 – 2020	Chief Digital Officer, Wealth Management, Morgan Stanley
2014 – 2016	Executive Vice President, Investor Services Segments & Platforms, Charles Schwab Corporation
2014	Senior Vice President, Business Process Transformation, Charles Schwab Corporation
2012 – 2014	Senior Vice President, Advisor Services Client Experience & Strategic Integration, Charles Schwab Corporation
2010 – 2012	COO and Board Director, Charles Schwab Corporation
2003 – 2010	Various senior positions at Charles Schwab Corporation

Education

- Bachelor’s degree, economics, Princeton University
- Master’s degree, business administration, Stanford University Graduate School of Business

Other activities and functions

- Member of the Board of UBS Americas Holding LLC



Robert Karofsky

President Investment Bank, member of the GEB since 2018

Nationality: American (US) | **Year of birth:** 1967

Robert Karofsky was appointed Co-President of the Investment Bank in 2018. He became sole President in April 2021. Before joining UBS, he acquired know-how in investment banking as an analyst and trader, working for various financial institutions such as Morgan Stanley, Deutsche Bank and AllianceBernstein. He then became Global Head of Equities at UBS, responsible for driving UBS’s growth strategy for equities globally. In October 2021, Mr. Karofsky was appointed to the additional role of UBS GEB sponsor to co-lead the AI, Data and Analytics center of expertise, along with Mike Dargan.

Professional experience

Apr. 2021 – date	President Investment Bank, UBS Group AG and UBS AG
2018 – Mar. 2021	Co-President Investment Bank, UBS
2015 – 2021	President UBS Securities LLC, UBS
2014 – 2018	Global Head Equities, UBS
2011 – 2014	Global Head of Equity Trading, AllianceBernstein
2008 – 2010	Co-Head of Global Equities, Deutsche Bank
2005 – 2008	Head of North American Equities, Deutsche Bank

Education

- Bachelor’s degree, economics, Hobart and William Smith Colleges, New York
- MBA, finance and statistics, University of Chicago’s Booth School of Business

Other activities and functions

- Member of the Board of UBS Americas Holding LLC
- Member of the Board of UBS Optimus Foundation
- Trustee of the UBS Americas Inc. Political Action Committee

- Member of the Board of the Securities Industry and Financial Markets Association



Sabine Keller-Busse

President Personal & Corporate Banking and President UBS Switzerland, member of the GEB since 2016

Nationality: Swiss and German | **Year of birth:** 1965

Sabine Keller-Busse was appointed President Personal & Corporate Banking and President UBS Switzerland in 2021, heading the leading universal bank in Switzerland. In her previous role as Group COO, she oversaw global functions such as technology, operations, human resources and corporate services. She has been pivotal in driving business alignment, and digital and cultural transformation, while also facilitating business growth as President UBS Europe, Middle East and Africa. Ms. Keller-Busse also brings in-depth experience regarding financial market infrastructure, having served on the Board of SIX Group for nine years.

Professional experience

Feb. 2021 – date	President Personal & Corporate Banking and President UBS Switzerland, UBS Group AG
Feb. 2021 – date	President of the Executive Board, UBS Switzerland AG
2019 – 2021	President UBS Europe, Middle East and Africa, UBS
2018 – 2021	Group COO of UBS and President of the Executive Board, UBS Business Solutions AG
2016 – 2021	Member of the Executive Board of UBS AG
2014 – 2017	Group Head Human Resources, UBS
2010 – 2014	COO UBS Switzerland, UBS

Education

- Master’s degree, economic sciences, University of St. Gallen
- Ph.D., economic sciences (Dr. oec.), University of St. Gallen

Listed company boards

- Member of the Board of Zurich Insurance Group

Other activities and functions



Iqbal Khan

President Global Wealth Management and President UBS Europe, Middle East and Africa, member of the GEB since 2019

Nationality: Swiss | **Year of birth:** 1976

Iqbal Khan has been President Global Wealth Management since October 2022 and President UBS Europe, Middle East and Africa since February 2021. From 2019 until September 2022, he was Co-President Global Wealth Management. Mr. Khan joined Ernst & Young in 2001, holding many leadership positions and becoming the youngest-ever partner of the firm’s Swiss arm; when leaving Ernst & Young, he was lead auditor of UBS. In 2013, he moved to Credit Suisse, holding senior leadership positions as CFO Private Banking & Wealth Management and later CEO International Wealth Management.

Professional experience

Oct. 2022 – date	President Global Wealth Management, UBS Group AG and UBS AG
Feb. 2021 – date	President UBS Europe, Middle East and Africa, UBS Group AG and UBS AG
2019 – Sept. 2022	Co-President Global Wealth Management, UBS
2015 – 2019	CEO International Wealth Management, Credit Suisse
2013 – 2015	CFO Private Banking & Wealth Management, Credit Suisse
2011 – 2013	Managing Partner Assurance and Advisory Services – Financial Services, Ernst & Young
2009 – 2011	Industry Lead Partner Banking and Capital Markets, Switzerland and EMEA Private Banking, Ernst & Young
2001 – 2009	Various positions in Ernst & Young

Education

- Swiss Certified Public Accountant
- Advanced Master of International Business Law degree (LL.M.), University of Zurich

- Member of the Foundation Council of the UBS International Center of Economics in Society
- Member of the Board and Board Committee of Zurich Chamber of Commerce
- Member of the Board of the University Hospital Zurich Foundation
- Member of the Board of Trustees of the Swiss Entrepreneurs Foundation

Other activities and functions

- Member of the Supervisory Board of UBS Europe SE
- Member of the Board of UBS Optimus Foundation
- Member of the Board of Room to Read Switzerland



Edmund Koh

President UBS Asia Pacific, member of the GEB since 2019

Nationality: Singaporean | **Year of birth:** 1960

Edmund Koh has been President UBS Asia Pacific since 2019. He is a financial sector veteran, with more than 30 years in senior roles in financial services, including as Head Wealth Management Asia Pacific, Country Head Singapore and Head Wealth Management South-East Asia and Asia Pacific Hub for UBS. Before working for DBS Bank in Singapore, Mr. Koh was CEO for Prudential Assurance and Alverdine Pte Ltd, both companies based in Singapore. He joined UBS from Taiwan-based Ta Chong Bank, where he served as President and Director.

Professional experience

2019 – date	President UBS Asia Pacific, UBS Group AG and UBS AG
2016 – 2018	Head Wealth Management Asia Pacific, UBS
2012 – 2018	Country Head Singapore, UBS
2012 – 2015	Head Wealth Management South-East Asia and Asia Pacific Hub, UBS
2008 – 2012	President and Director, Ta Chong Bank, Taiwan
2001 – 2008	Managing Director and Regional Head, Consumer Banking Group, DBS Bank, Singapore

Education

- Bachelor’s degree, psychology, University of Toronto

Non-listed company boards

- Member of the Board of Trustees of the Wealth Management Institute, Singapore
- Member of the Board of Next50 Limited, Singapore
- Member of the Board of Medico Suites (S) Pte Ltd
- Member of the Board of Curbside Pte Ltd

Other activities and functions



Barbara Levi

Group General Counsel, member of the GEB since 2021

Nationality: Italian | **Year of birth:** 1971

Barbara Levi has been Group General Counsel since November 2021. A qualified attorney-at-law, she has been admitted to the Supreme Court of the United States, the New York State bar and the bar of Milan, Italy, and has worked in several law firms in New York and Milan. Ms. Levi began her corporate career with Novartis Group in 2004 and worked there for 16 years, holding a number of senior legal roles across Europe. Before joining UBS, she served as Chief Legal Officer & External Affairs at Rio Tinto Group and, before that, as General Counsel. In both roles, she was a member of that company’s executive committee.

Professional experience

Nov. 2021 – date	Group General Counsel, UBS Group AG, and General Counsel, UBS AG
2021	Chief Legal Officer & External Affairs, Rio Tinto Group
2020 – 2021	Group General Counsel, Rio Tinto Group
2019	Group Legal Head, M&A and Strategic Transactions, Novartis
2016 – 2019	Global General Counsel, Sandoz International GmbH, Novartis
2014 – 2016	Global Legal Head, Product Strategy & Commercialization, Novartis
2013 – 2014	Global Legal Head, TechOps, Primary Care and Established Medicines, Novartis
2009 – 2013	Head of Legal & Compliance, Region Asia-Pacific, Middle East, and African Countries, Region Group Emerging Markets, Novartis

Education

- Law degree, University of Milan
- Master of Laws (LL.M.), banking, corporate and finance law, Fordham University School of Law, New York

Other activities and functions

- Member of a sub-committee of the Singapore Ministry of Finance's Committee on the Future Economy
- Member of the Financial Centre Advisory Panel of the Monetary Authority of Singapore
- Council member of the Asian Bureau of Finance and Economic Research
- Trustee of the Cultural Matching Fund, Singapore
- Member of University of Toronto's International Leadership Council for Asia
- Member of the Employers' Board of the Global Institute for Women's Leadership, King's College London
- Member of the Board of Directors of the European General Counsel Association
- Member of the Legal Committee of the Swiss-American Chamber of Commerce



Markus Ronner

Group Chief Compliance and Governance Officer, member of the GEB since 2018

Nationality: Swiss | **Year of birth:** 1965

Markus Ronner has been Group Chief Compliance and Governance Officer since 2018. He has been with UBS for more than 40 years and held various positions across the firm, including manager of the Group-wide too-big-to-fail program, COO Wealth Management & Swiss Bank, Head Products and Services of Wealth Management & Swiss Bank, COO Asset Management, and Head Group Internal Audit. In his current position, he is responsible at the Group level for the control of all non-financial risks, governmental and regulatory affairs, as well as investigations and governance matters. Since 2022, he also serves as Chairman of UBS Switzerland AG, the leading Swiss universal bank.

Professional experience

2018 – date	Group Chief Compliance and Governance Officer, UBS Group AG, and Chief Compliance and Governance Officer UBS AG
2012 – 2018	Head Group Regulatory and Governance, UBS
2011 – 2013	Manager Group-wide too-big-to-fail program, UBS
2010 – 2011	COO Wealth Management & Swiss Bank, UBS
2009 – 2010	Head Products and Services of Wealth Management & Swiss Bank, UBS
2007 – 2009	COO Asset Management, UBS
2001 – 2007	Head Group Internal Audit, UBS

Education

- Swiss Banking Diploma

Other activities and functions

- Chairman of the Board of Directors of UBS Switzerland AG



Sarah Youngwood

Group Chief Financial Officer, member of the GEB since March 2022

Nationality: American (US) and French | **Year of birth:** 1974

Sarah Youngwood became Group CFO in May 2022. Before joining UBS, Ms. Youngwood was CFO for JPMorgan Chase Consumer & Community Banking, CFO for Firmwide Technology and CFO for Diversity & Inclusion. She set up the data and reporting infrastructure for that company’s USD 30bn racial equity commitments. Previously, Ms. Youngwood was Head of Investor Relations and worked in the Financial Institutions Group within JPMorgan’s investment bank in Paris, London and New York. She brings in-depth finance expertise to the table and has a strong track record of adding long-term value, and leading agile and data-driven transformations.

Professional experience

May 2022 – date	Group CFO, UBS Group AG, and CFO, UBS AG
2020 – 2022	CFO, Consumer & Community Banking and Diversity & Inclusion, incl. Global Technology, JPMorgan Chase
2016 – 2020	CFO, Consumer & Community Banking, JPMorgan Chase
2012 – 2016	Head of Investor Relations, JPMorgan Chase
1997 – 2012	Investment Bank, Financial Institutions Group, JPMorgan Chase, Paris, London and New York, including Managing Director – Head of Mortgage Coverage activities

Education

- Master’s degree, Business and Finance, ESCP Business School, Paris

Other activities and functions

- Member of the Board of UBS Business Solutions AG
- Advisory Board Member – Wall Street Women’s Alliance

Change of control and defense measures

Our Articles of Association (the AoA) do not provide any measures for delaying, deferring or preventing a change of control.

Duty to make an offer

Pursuant to the Swiss Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading of 19 June 2015, an investor who has acquired (whether directly, indirectly or in concert with third parties) more than 33 $\frac{1}{3}$ % of all voting rights of a company listed in Switzerland, whether such rights are exercisable or not, is required to submit a takeover offer for all listed shares outstanding. We have not elected to change or opt out of this rule.

Clauses on change of control

Neither the terms regulating the Board members' mandate nor any employment contracts with GEB members or employees holding key functions within the Group contain change of control clauses.

All employment contracts with GEB members stipulate a notice period of six months. During the notice period, GEB members are entitled to their salaries and the continuation of existing employment benefits and may be eligible to be considered for a discretionary performance award based on their contribution during their tenure.

In case of a change of control, we may, at our discretion, accelerate the vesting of and / or relax applicable forfeiture provisions of employees' awards.

- **Refer to the "Compensation" section of this report for more information**

Auditors

Audit is an integral part of corporate governance. While safeguarding their independence, the external auditors closely coordinate their work with Group Internal Audit (GIA). The Audit Committee and, ultimately, the BoD supervise the effectiveness of audit work.

- **Refer to "Board of Directors" in this section for more information about the Audit Committee**

External independent auditors

The 2022 AGM re-elected Ernst & Young Ltd (EY) as auditors for the Group for the 2022 financial year. EY assumes virtually all auditing functions according to laws, regulatory requests and the AoA. Bob Jacob is the EY lead partner in charge of the overall coordination of the UBS Group financial and regulatory audits and the co-signing partner of the financial audit. In 2020, Maurice McCormick became the lead audit partner for the financial statement audit and has an incumbency limit of five years. In 2021, Hannes Smit became the Lead Auditor to the Swiss Financial Market Supervisory Authority (FINMA) with an incumbency limit of seven years. Daniel Martin has been the co-signing partner for the FINMA audit since 2019, with an incumbency limit of seven years.

During 2022, the Audit Committee held 12 meetings with the external auditors.

Review of UBS Group AG and UBS AG audit engagement

EU rules require UBS Europe SE to rotate its external auditors in the 2024 financial year. In connection with this required change, and in consideration of governance best practices, the BoD considered whether it would propose to shareholders a rotation of the Group auditor concurrent with the change at UBS Europe SE. Under the direction of the Audit Committee, UBS conducted a formal review of the Group audit engagement including soliciting proposals from potential auditors. In early 2022, based on the results of this assessment, the BoD decided to retain EY as the Group's external auditors.

Audit effectiveness assessment

The Audit Committee assesses the performance, effectiveness and independence of the external auditors on an annual basis. The assessment is generally based on interviews with senior management and survey feedback from stakeholders across the Group. Assessment criteria include quality of service delivery, quality and competence of the audit team, value added as part of the audit, insightfulness, and the overall relationship with EY. Based on its own analysis and the assessment results, including feedback received as part of the review of the Group audit engagement described above, the Audit Committee concluded that EY's audit has been effective.

Fees paid to external independent auditors

UBS Group AG and its subsidiaries (including UBS AG) paid the following fees (including expenses) to their external independent auditors.

<i>USD m</i>	For the year ended	
	31.12.22	31.12.21
Audit		
Global audit fees	49	53
Additional services classified as audit (services required by law or statute, including work of a non-recurring nature mandated by regulators)	7	8
Total audit¹	56	61
Non-audit		
Audit-related fees	11	9
<i>of which: assurance and attestation services</i>	6	4
<i>of which: control and performance reports</i>	5	5
<i>of which: consultation concerning financial accounting and reporting standards</i>	0	0
Tax fees	2	1
All other fees	1	0
Total non-audit¹	14	10

1 Total audit and non-audit fees amounted to USD 70m for UBS Group AG consolidated as of 31 December 2022 (31 December 2021: USD 72m), of which USD 46m related to UBS AG consolidated (31 December 2021: USD 43m).

Special auditors for potential capital increases

At the AGM on 8 April 2021, BDO AG was reappointed as special auditors for a three-year term of office. Special auditors provide audit opinions in connection with potential capital increases independently from other auditors.

Services performed and fees

The Audit Committee oversees all services provided to UBS by the external auditors. For services requiring the approval from the Audit Committee, a preapproval may be granted either for a specific mandate or in the form of a blanket preapproval authorizing a limited and well-defined type and scope of services. The fees (including expenses) paid to EY are set forth in the table above. In addition, EY received USD 35.2m in 2022 (USD 34.1m in 2021) for services performed on behalf of our investment funds, many of which have independent fund boards or trustees.

Audit work includes all services necessary to perform the audit for the Group in accordance with applicable laws and generally accepted auditing standards, as well as other assurance services that conventionally only the auditor can provide. These include statutory and regulatory audits, attestation services and the review of documents to be filed with regulatory bodies. The additional services classified as audit in 2022 included several engagements for which EY was mandated at the request of FINMA.

Audit-related work consists of assurance and related services traditionally performed by auditors, such as attestation services related to financial reporting, internal control reviews and performance standard reviews, as well as consultation concerning financial accounting and reporting standards.

Tax work involves services performed by professional staff in EY's tax division and includes tax compliance and tax consultation with respect to our own affairs.

"Other" services are permitted services, which include technical IT security control reviews and assessments.

Group Internal Audit

GIA performs the internal auditing role for the Group. It is an independent function that provides expertise and insights to confirm controls are functioning correctly and highlight where UBS needs to better manage current and emerging risks. In 2022, it operated with an average headcount of 585 full-time equivalent employees.

GIA supports the BoD in discharging its governance responsibilities by taking a dynamic approach to audit, issue assurance and risk assessment, drawing attention to key risks in order to drive action to prevent unexpected loss or damage to the firm's reputation. To support the achievement of UBS's objectives, GIA independently, objectively and systematically assesses the:

- (i) soundness of the Group's risk and control culture;
- (ii) reliability and integrity of financial and operational information, including whether activities are properly, accurately and completely recorded, and the quality of underlying data and models; and
- (iii) design, operating effectiveness and sustainability of:
 - processes to define strategy and risk appetite, as well as the overall adherence to the approved strategy;
 - governance processes;
 - risk management, including whether risks are appropriately identified and managed;
 - internal controls, specifically whether they are commensurate with the risks taken;
 - remediation activities; and
 - processes to comply with legal and regulatory requirements, internal policies, and the Group's constitutional documents and contracts.

Audit reports that include significant issues are provided to the Group CEO, relevant GEB members and other responsible management. The Chairman, the Audit Committee and the Risk Committee of the BoD are regularly informed of such issues.

In addition, GIA provides independent assurance on the effective and sustainable remediation of control deficiencies within its mandate, taking a prudent and conservative risk-based approach and assessing at the issue level whether the root cause and the potential exposure for the firm have been holistically and sustainably addressed. GIA also cooperates closely with risk control functions and internal and external legal advisors on investigations into major control issues.

To ensure GIA's independence from management, the Head GIA reports to the Chairman of the BoD and to the Audit Committee, which assesses annually whether GIA has sufficient resources to perform its function, as well as its independence and performance. In the Audit Committee's assessment, GIA is sufficiently resourced to fulfill its mandate and complete its auditing objectives. GIA's role, position, responsibilities and accountability are set out in our Organization Regulations and the Charter for GIA, available at ubs.com/governance. The Charter also applies to UBS AG's internal audit function. GIA has unrestricted access to all accounts, books, records, systems, property and personnel, and must be provided with all information and data that it needs to fulfill its auditing responsibilities. GIA also conducts special audits at the request of the Audit Committee, or other BoD members, committees or the Group CEO in consultation with the Audit Committee.

GIA enhances the efficiency of its work through coordination and close cooperation with the external auditors.

Information policy

We provide regular information to our shareholders and to the wider financial community.

Financial reports for UBS Group AG are expected to be published on the following dates:

First quarter 2023	25 April 2023
Second quarter 2023	25 July 2023
Third quarter 2023	24 October 2023

The annual general meetings of the shareholders of UBS Group AG will take place on the following dates:

2023	5 April 2023
2024	11 April 2024

- **Refer to the corporate calendar available at ubs.com/investors for the dates of the publication of financial reports and other key dates, including the dates of the publication of UBS AG's financial reports**

We meet with institutional investors worldwide throughout the year and regularly hold results presentations, attend and present at investor conferences, and, from time to time, host investor days. When appropriate, investor meetings are hosted by senior management and are attended by members of our Investor Relations team. We use various technologies, such as webcasting, audio links and cross-location videoconferencing, to widen our audience and maintain contact with shareholders globally.

We make our publications available to all shareholders simultaneously to provide them with equal access to our financial information.

Our annual and quarterly publications are available in a fully digital and .pdf format at ubs.com/investors, under “Financial information.” Starting with our Annual Report 2022, we no longer provide printed copies of our Annual Report and our Compensation Report in any language.

- **Refer to ubs.com/investors for a complete set of published reporting documents and a selection of senior management industry > conference presentations**
- **Refer to the “Information sources” section of this report for more information**
- **Refer to “Corporate information” and “Contacts” of this report for more information**

Financial disclosure principles

We fully support transparency, and consistent and informative disclosure. We aim to communicate our strategy and results in a manner that enables stakeholders to gain a good understanding of how our Group operates, what our growth prospects are, and the risks that our businesses and our strategy entail. We assess feedback from analysts and investors on a regular basis and, where appropriate, reflect this in our disclosures. To continue achieving these goals, we apply the following principles in our financial reporting and disclosure:

- *transparency* that enhances the understanding of economic drivers and builds trust and credibility;
- *consistency* within each reporting period and between reporting periods;
- *simplicity* that allows readers to gain a good understanding of the performance of our businesses;
- *relevance*, by focusing not only on what is required by regulation or statute but also on what is relevant to our stakeholders; and
- *best practice* that leads to improved standards.

We regard the continuous improvement of our disclosures as an ongoing commitment.

Financial reporting policies

We report our Group’s results for each financial quarter, including a breakdown of results by business division and disclosures or key developments relating to risk management and control, capital, liquidity and funding management. Each quarter, we publish quarterly financial reports for UBS Group AG, on the same day as the earnings releases.

The consolidated financial statements of UBS Group AG and UBS AG are prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

- **Refer to “Note 1 Summary of material accounting policies” in the “Consolidated financial statements” section of this report for more information about the basis of accounting**

We are committed to maintaining the transparency of our reported results and to allowing analysts and investors to make meaningful comparisons with prior periods. If there is a major reorganization of our business divisions or if changes to accounting standards or interpretations lead to a material change in the Group’s reported results, our results are restated for previous periods as required by applicable accounting standards. These restatements show how our results would have been reported on the new basis and provide clear explanations of all relevant changes.

US disclosure requirements

As a foreign private issuer, we must file reports and other information, including certain financial reports, with the US Securities and Exchange Commission (the SEC) under the US federal securities laws.

An evaluation of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a–15e) under the US Securities Exchange Act of 1934 has been carried out, under the supervision of management, including the Group CEO, the Group CFO and the Group Controller and Chief Accounting Officer. Based on that evaluation, the Group CEO and the Group CFO concluded that our disclosure controls and procedures were effective as of 31 December 2022. No significant changes have been made to our internal controls or to other factors that could significantly affect these controls subsequent to the date of their evaluation.

- **Refer to the “Consolidated financial statements” section of this report for more information**

Compensation

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Compensation



Julie G. Richardson
Chairperson of the
Compensation Committee
of the Board of Directors

Dear Shareholders,

The Board of Directors (the BoD) and I wish to thank you for your support once again at last year's Annual General Meeting (the AGM) and for sharing your views on our compensation practices over the past year.

Throughout 2022, the BoD Compensation Committee continued to oversee the compensation process, aiming to ensure that reward reflects performance, that risk-taking is appropriate and that employees' interests are aligned with those of our stakeholders. As the Chairperson of the Compensation Committee, I am pleased to present our Compensation Report for 2022.

As part of our ongoing engagement with shareholders during 2022, we received positive feedback on our compensation framework. We believe it is well suited to support our ambitions for the Group and provides strong alignment with shareholders. Its robustness supports pay-for-performance through varying business cycles and incentivizes both annual and longer-term performance. In addition to other measures taken in light of the increasing competition for talent, our compensation framework further reinforces the attractiveness of UBS for key talent.

Supporting our clients and executing in a challenging environment

The macroeconomic and geopolitical environment has become increasingly complex. Our clients remain focused on key issues, such as potential persistently high inflation, elevated energy prices, the war in Ukraine and residual effects of the pandemic. The related impact has been far-reaching, affecting asset levels, market volatility, rates and investor sentiment across the globe. Our highly accretive, capital-light business model and disciplined risk management position us well to face the challenges of the current macroeconomic environment.

Sustainable finance is crucial when it comes to helping our clients achieve their diverse sustainability objectives. Leveraging the deep expertise of our experienced teams, we work hard to service our clients' diverse sustainable financing, investing and/or advisory needs in the best way possible. In 2022, we expanded our sustainable investment offering with additional alternative and tailored-investment solutions and progressed a number of important investment product initiatives relevant to a broad spectrum of clients across our business areas.

- **Refer to "Financial and operating performance" in our Annual Report 2022 for further details about our Group and business division performance**

How does UBS respond to the increasing competition for talent?

- We continue to see heightened competition for talent. These pressures come from our competitors but also organizations in other industries, including technology, consulting and new entrants, such as fintech firms.
- We continue to be successful in hiring the talent we need to grow our businesses, who are increasingly interested in operating digitally, and they value diverse experiences, which requires flexibility and agility. That's one reason why we support hybrid working arrangements where possible as these benefit current employees and improve client service while attracting a wider range of candidates and making us a stronger, more dynamic company.
- Agility drives simplification; we are committed to making it even easier for our clients to do business with us and for our employees to work at UBS. As of year-end 2022, approximately 18,500 employees across the firm were working in agile teams.
- In 2022, we further expanded our employee health and well-being offering. This included a suite of programs, benefits and workplace resources, along with a bespoke eLearning curriculum, that aimed to help our employees manage their health, foster well-being, strengthen their resilience and support the sustainability of the organization.
- Ultimately, we strongly reflect pay-for-performance in our compensation decision-making, and additionally consider carefully inflation levels and our competitive market position.
 - **Refer to ubs.com/global/en/our-firm/our-employees for more information about our workforce**

GEB hiring and succession planning

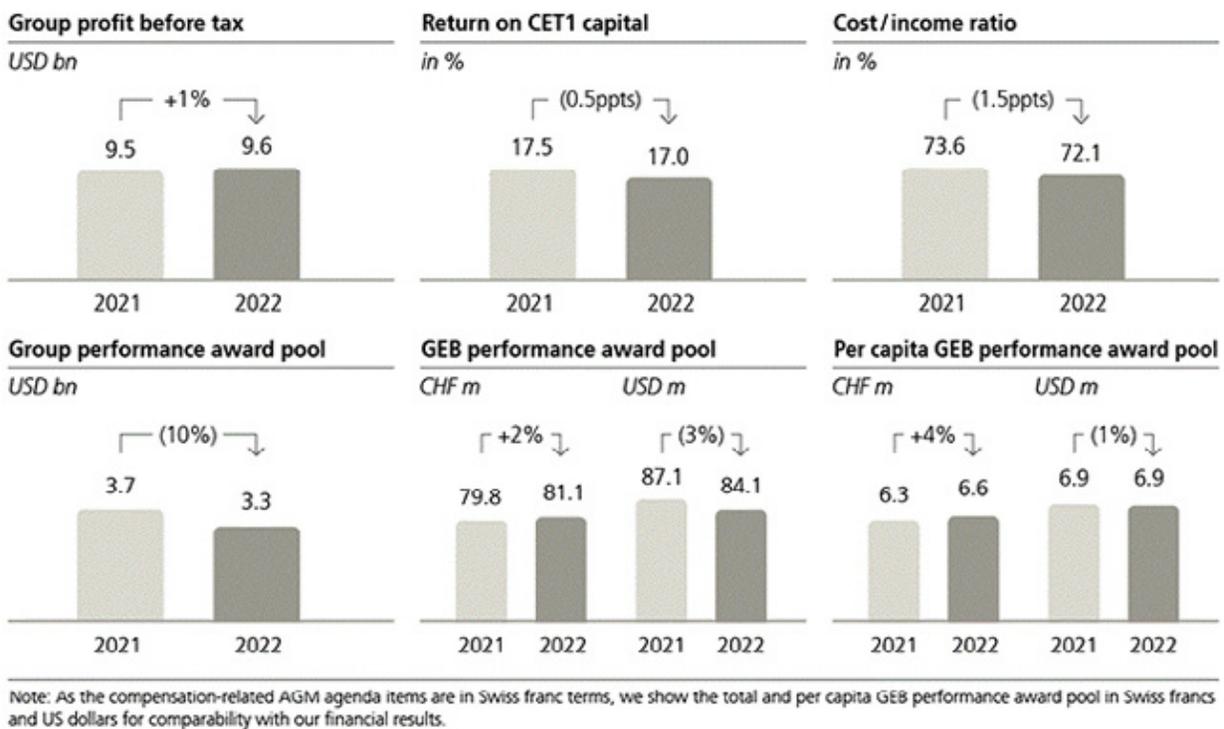
Succession planning is a pivotal activity for the BoD. We are convinced that a Group Executive Board (GEB) with diverse backgrounds and experiences is critical to our continued success. We have a successful track record of filling GEB roles with highly qualified, diverse candidates from within the Group and, in selected cases, from the outside. In order to attract external top talent, market practice dictates that we consider replacing the forfeited compensation from their prior employer. In selected situations and with careful consideration, we replace the lost compensation of senior hires. Awards for new GEB members are subject to independent review to support the like-for-like nature of the replacement and confirm that these awards do not represent sign-on payments (i.e., there are no “golden hellos”). In 2022, we made two external GEB hires and in this report we disclose their replacement awards.

Financial performance

We delivered good results in 2022, with USD 9.6bn profit before tax and 17.0% RoCET1 in a challenging environment, achieving our Group returns and efficiency targets on a reported and underlying basis. This result was supported by strong momentum with our clients, who turned to us for advice, resulting in USD 60bn of net new fee-generating assets. We also demonstrated continued cost discipline despite the backdrop of rising inflation, resulting in a cost-income ratio of 72.1%. We are well positioned to continue executing our growth strategy and delivering strong capital returns, while weathering the challenges of the current macroeconomic environment. We enter 2023 in a position of strength and with a CET1 capital ratio of 14.2%, enabling us to fund growth and deliver attractive and sustainable returns to shareholders.

Commitment to return capital to shareholders

We remain committed to returning excess capital to our shareholders. We repurchased USD 5.6bn of shares in 2022. Looking ahead, we intend to continue repurchasing shares and accruing for a progressive dividend. The BoD is proposing a dividend of USD 0.55 per share for 2022 (which represents an increase of 10% compared with the previous year) for approval at the AGM in 2023.



2022 performance award pool and salaries

The performance award pool continues to reflect our strict pay-for-performance philosophy, our disciplined approach in managing compensation over business cycles and our alignment to shareholder interests. Reflecting our overall results while also considering our underlying results, the 2022 performance award pool was USD 3.3bn, a decrease of 10% compared with 2021.

In addition, the pool also reflects our achievements relative to non-financial objectives, such as our reconfirmed position among the leading firms when it comes to their approach to sustainability. It also takes into account risk considerations, as well as the competitive total shareholder return (TSR) of UBS shares versus our core peers. It also considers other factors, such as the continuing competition to attract and retain a talented and diverse workforce that delivers on our purpose and strategy.

While the 2022 GEB pool percentage change appears more favorable than the overall Group pool, this year's GEB comparison is impacted by the significant reduction made in 2021 to reflect the loss resulting from the default of a US client in our prime brokerage business. For 2022, we consider a GEB pool before the impact of the 2021 loss event to support competitive pay for competitive performance and not to carry forward the 2021 impact over multiple years. In addition, the 2022 GEB pool reflects changes in both foreign exchange rates and GEB composition. Adjusted for the direct impact of the 2021 loss event on specific GEB members, the 2022 GEB pool is down approximately 5% in Swiss franc terms or a decrease of 10% in US dollar terms, which is aligned with the Group pool development.

We take note of the increased impact of inflationary pressures on the broad-based employee population. At a Group level, we have carefully monitored and adjusted compensation levels where appropriate to address increased competition for talent in certain markets. For the GEB, we continue with the same salary level instituted in 2011 and propose no increase to our GEB fixed compensation budget and salary levels for 2024. Furthermore, we also propose no increase to the fee levels for the BoD and no change to the maximum aggregate amount for BoD from the 2023 AGM to the 2024 AGM.

Commitment to fair pay and diversity, equity and inclusion

Pay equity and equal opportunity are fundamental to achieving our purpose. We pay for performance, and we take pay equity seriously. Since 2020, we have been certified under the EQUAL-SALARY Foundation standards for our human resources practices in Switzerland, the US, the UK, the Hong Kong SAR and Singapore, covering more than two-thirds of our global employee population. Our processes are global and we apply the same standards across all our locations.

In 2022, we extended our internal fair pay analysis by assessing employees' salaries against local living wages, using benchmarks defined by the Fair Wage Network. We are committed to fair pay and support all employees being paid at least a living wage.

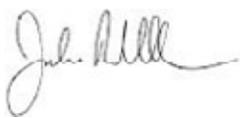
In 2020, we outlined our intention to increase diversity, especially among management, and we have made steady progress toward achieving our aspirations. Women now account for more than 40% of our workforce, nearly 28% of our Director-level and above population, and 42% of our GEB members.

The 2023 Annual General Meeting

At the 2023 AGM on 5 April, we will seek your support on the following compensation-related items:

- the maximum aggregate amount of compensation for the BoD for the period from the 2023 AGM to the 2024 AGM;
- the maximum aggregate amount of fixed compensation for the GEB for 2024;
- the aggregate amount of variable compensation for the GEB for 2022; and
- shareholder endorsement in an advisory vote for this Compensation Report.

On behalf of the Compensation Committee and the BoD, I thank you again for your feedback and we respectfully ask for your continued support at the upcoming AGM.



Julie G. Richardson
Chairperson of the Compensation Committee of the
Board of Directors

2022 key compensation themes

The feedback we seek from our shareholders about compensation-related topics is very important to us, as we are committed to maintaining a strong link between the interests of our employees and those of our shareholders. We continued engaging with shareholders during 2022 and received overall positive feedback about our compensation framework.

The text below summarizes key compensation themes for 2022 and provides answers to the questions we most frequently receive from shareholders.

Summary of 2022 key compensation themes / responses to frequently asked questions

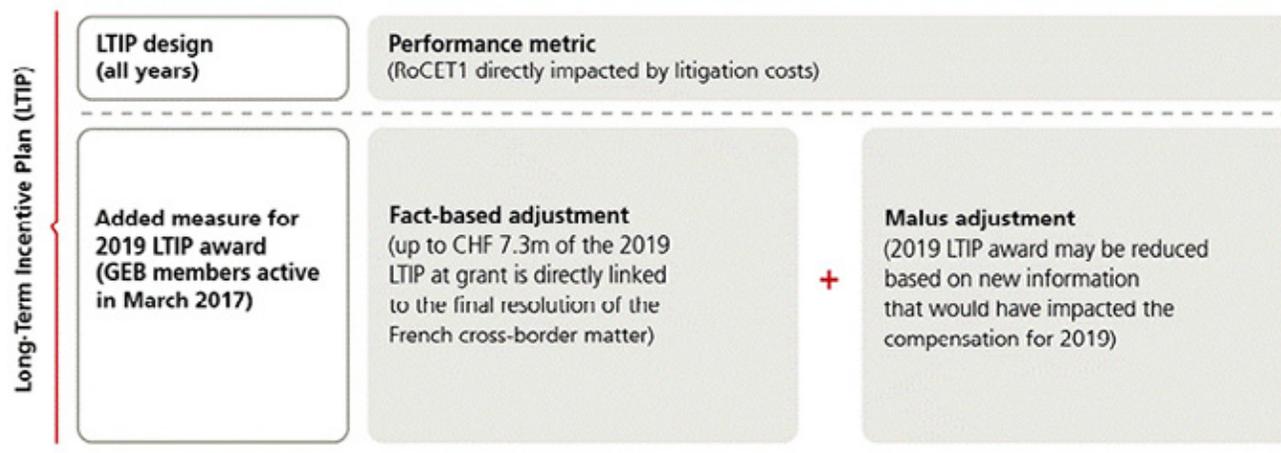
What progress has been made on resolving the French cross-border matter and how is this reflected in GEB compensation?

In December 2021, UBS filed an appeal with the French Supreme Court regarding the decision of the Court of Appeal relating to the French cross-border matter. This matter remains ongoing and was considered in the decision-making process for our 2021 performance award pool.

The use of the RoCET1 metric aims to ensure the cost of litigation matters, including the French cross-border matter, has an ongoing and direct impact on the compensation awarded and realized by our most senior leaders, including the GEB. Additionally, when determining the 2019 performance award pool, the impact of the French cross-border matter was considered in our decision making, following the verdict of the Court of First Instance in early 2019.

Furthermore, up to CHF 7.9m, or 30%, of the 2019 LTIP awards at grant for GEB members active in March 2017, as well as the former Chairman of the BoD's unvested share award, remains undelivered and continues to be at risk and directly linked to the final resolution of the French cross-border matter. In addition, a malus clause allows the Compensation Committee to assess any new information that becomes available in the future and to retrospectively reduce any undelivered 2019 LTIP award by up to the full amount if such new information would have impacted our compensation decision in 2019. This matter continues to be ongoing and, once resolved, the final outcome will be reflected in the final amounts delivered to relevant current and former employees.

Impact of litigation matters on the LTIP



Note: As disclosed in the Compensation Report 2019.

How does UBS support diversity and pay fairness?

Compensating employees fairly and consistently is key to ensuring equal opportunities. A strong commitment to pay for performance and pay equity is embedded in our compensation policies.

- Refer to “Environmental, Social and Governance considerations” in the “Compensation philosophy and governance” section of this report for more information about pay fairness
- Refer to the “People and culture make the difference” section of our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about diversity, equity and inclusion (DE&I)

How are environmental, social and governance considerations factored into the compensation process?

We maintain our well-established process that considers environmental, social and governance (ESG) objectives in the compensation determination process in objective setting, performance award pool funding, performance evaluation and compensation decisions.

- **Refer to “Environmental, Social and Governance considerations” in the “Compensation philosophy and governance” section of this report for more information**

How does UBS promote and support the health and well-being of employees?

Supporting employee health and well-being remained a priority, and we further expanded our offering in 2022. We are committed to helping employees thrive in their current roles and deliver sustainable performance over time. Regular “pulse” surveys gauged employees’ views on remote work, stress, communication and other aspects. Resources to support holistic well-being included a suite of programs, benefits and workplace resources, along with a bespoke eLearning curriculum, that aimed to help our employees manage their health, foster well-being, strengthen their resilience > and support the sustainability of the organization.

- **Refer to the “People and culture make the difference“ section of our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about DE&I**

What is the achievement level of the Long-Term Incentive Plan granted in 2020 for 2019 performance?

The deferred portion of the performance award granted in 2020 (for 2019 performance) to members of the Group Executive Board (the GEB) and selected senior management was in part delivered through the Long-Term Incentive Plan (the LTIP) award. The three-year performance period concluded at the end of 2022, with the 2019 LTIP achieving 98% of the maximum opportunity (of up to 100%). We believe alignment of our senior leadership with our shareholders is important for long-term success. Our LTIP is designed to support alignment of compensation with the execution of our strategy, financial performance and long-term growth.

Performance achievement for the 2019 LTIP awarded in 2020

Performance metrics	Performance metric outcome		2019 LTIP achievement level			
	Threshold	Maximum	Threshold	Maximum		
RoCET1 (Weight: 50%)	6%	18%	Outcome below threshold: full forfeiture	33%	100%	Outcome above maximum: achievement capped at 100%
	Outcome: 17.3%			Achievement: 96%		
rTSR (Weight: 50%)	-25ppts	+25ppts		33%	100%	
	Outcome: 50.9ppts		Achievement: 100%			
Overall 2019 LTIP achievement level			Overall achievement: 98%			

Say-on-pay

Say-on-pay votes at the AGM

In line with the revised Swiss Code of Obligations (which to a large extent integrates the Swiss Ordinance against Excessive Compensation in Listed Stock Corporations, which was enacted as an interim measure), we seek binding shareholder approval for the aggregate compensation awarded to the Group Executive Board (the GEB) and the Board of Directors (the BoD). Prospective approval of the fixed compensation of the BoD and GEB provides the firm and its governing bodies with the certainty needed to operate effectively. Retrospective approval of the GEB's variable compensation aligns their compensation with performance and contribution.

The table below outlines our compensation proposals, including supporting rationales, that we plan to submit to the 2023 AGM for binding votes, in line with the revised Swiss Code of Obligations and our Articles of Association (the AoA).

These binding votes on compensation and the advisory vote on our compensation report reflect our commitment to shareholders having their say on pay.

- **Refer to “Provisions of the Articles of Association related to compensation” in the “Supplemental information” section of this report for more information**

Audited |

Approved fixed compensation

At the 2021 AGM, the shareholders approved a maximum aggregate fixed compensation amount of CHF 33.0m for GEB members for the 2022 performance year. This budget reflects base salaries, role-based allowances in response to EU Capital Requirements Directive V, and estimated standard contributions to retirement benefit plans, as well as other benefits.

Our expenses related to fixed compensation for our continuing GEB members were within the budget; however, the amount of fixed compensation, including replacement awards, related to the hiring of Sarah Youngwood as Group Chief Financial Officer and Naureen Hassan as President UBS Americas, required the use of the supplemental amount as authorized by article 46 para. 5 of our AoA. A total of CHF 0.1m (of which CHF 0.05m related to Sarah Youngwood and CHF 0.05m related to Naureen Hassan) was used to fund the authorized excess to the approved aggregate amount of fixed compensation. ▲

- **Refer to “2022 total compensation for the GEB members” in the “Compensation for GEB members” section of this report**

Compensation-related proposals for binding and advisory votes at the 2023 AGM

<u>Item</u>	<u>Approved at the 2022 AGM</u>	<u>BoD proposals for the 2023 AGM</u>	<u>Rationale</u>
GEB variable compensation	Shareholders approved CHF 79,750,000 for the 2021 financial year ^{1,2,3} (vote “for”: 86%)	The BoD proposes an aggregate amount of variable compensation of CHF 81,100,000 for the members of the GEB for the 2022 financial year.	The proposed pool reflects the solid performance of the GEB as demonstrated in the strength of our share price and the good performance of the Group in a challenging market environment. For 2022, we consider a GEB pool excluding the impact of the 2021 loss event to support competitive pay for competitive performance and not to carry forward the 2021 impact over multiple years. Adjusted for the direct impact of the 2021 loss event on specific GEB members, the 2022 GEB pool is down approximately 5% in Swiss franc terms or a decrease of 10% in US dollar terms, which is aligned with the Group pool development.
GEB fixed compensation	Shareholders approved CHF 33,000,000 for the 2023 financial year ^{1,2,3} (vote “for”: 93%)	The BoD proposes a maximum aggregate amount of fixed compensation of CHF 33,000,000 for the members of the GEB for the 2024 financial year.	The proposed amount is unchanged from the previous year, reflecting consistency in planning over time and unchanged base salaries for the Group CEO and other GEB members. Besides the base salaries, it also includes role-based allowances, estimated standard contributions to retirement benefit plans, as well as other benefits. The proposed amount provides flexibility in light of potential changes of GEB composition or roles, competitive considerations where potential additional role-based allowances may be required as well as other factors (e.g., changes in FX rates or benefits).

BoD compensation	Shareholders approved CHF 13,000,000 for the period from the 2022 AGM to the 2023 AGM ^{1,2,4} (vote “for”: 93%)	The BoD proposes a maximum aggregate amount of compensation of CHF 13,000,000 for the members of the BoD for the period from the 2023 AGM to the 2024 AGM.	The proposed amount is unchanged compared with the previous period and includes the total compensation of the Chairman and the newly defined Vice Chairman role. The compensation for the Chairman is approximately 8% lower compared with the previous Chairman. The fee for the new full-time Vice Chairman role was absorbed within the existing budget. All BoD fees remain unchanged for the period 2023 AGM to 2024 AGM.
Advisory vote on the Compensation Report	Shareholders approved the UBS Group AG Compensation Report 2021 in an advisory vote (vote “for”: 86%)	The BoD proposes that the UBS Group AG Compensation Report 2022 be ratified in an advisory vote.	Our Total Reward Principles and compensation framework are fully aligned with our purpose and support our strategic imperatives. This aims to ensure that the interests of our employees are aligned with those of our clients and other stakeholders.

¹ Local currencies are converted into Swiss francs at the 2022 performance award currency exchange rates.

² Excludes the portion related to the legally required employer’s social security contributions.

³ As stated in “Group Executive Board” in the “Corporate governance” section of our Annual Report 2022, twelve GEB members were in office on 31 December 2022 and on 31 December 2021.

⁴ Twelve BoD members were in office on 31 December 2022 and on 31 December 2021.

Compensation philosophy and governance

Our compensation philosophy

Total Reward Principles

Our Total Reward Principles provide a strong link to our strategic imperatives and encourage employees to live our strong and inclusive culture that is grounded in our three keys to success: our Pillars, Principles and Behaviors. These guiding principles underpin our approach to compensation and define our compensation framework. In 2022, we reviewed our Total Reward Principles and compensation framework to confirm they are fully aligned with our purpose and support our strategic imperatives. This aims to ensure that the interests of our employees are aligned with those of our clients and other stakeholders.

Therefore, our compensation approach supports our capital strength and risk management, and provides for simplification and efficiency. It encourages employees to focus on client centricity, connectivity and sustainable impact in everything we do. Moreover, we reward behaviors that help build and protect the firm's reputation, specifically Accountability with integrity, Collaboration and Innovation. Compensation for each employee is based on individual, team, business division and Group performance, within the context of the markets in which we operate.

Total Reward Principles

Our Total Reward Principles apply to all employees globally, but vary in certain locations according to local legal requirements, regulations and practices. The table below provides a summary of our Total Reward Principles.

Support our purpose and strategy	Our compensation approach supports the firm's purpose and strategy, fosters engagement among employees and aligns their long-term interests with those of clients and stakeholders.
Attract, retain and connect a diverse, talented workforce	We embrace a culture of diversity, equity and inclusiveness. Pay at UBS is fair, reflects equal treatment and is competitive. In this way, our investment in a connected workforce supports the sustainability of the organization.
Apply a pay-for-performance approach to promote development and our ways of working	The setting of clear objectives, as well as a thorough evaluation of what was achieved and how it was achieved, combined with effective communication, promotes clarity, accountability and establishes a strong link between pay and performance. This approach emphasizes our Behaviors, which are Accountability with integrity, Collaboration and Innovation.
Reinforce sustainable growth and support long-term value creation	Compensation is appropriately balanced between fixed and variable elements and delivered over an adequate period to support our growth ambitions and sustainable performance.
Support risk awareness and appropriate risk-taking	Our compensation structure encourages employees to have a focus on risk management and behave consistently with the firm's risk framework and appetite, thereby anticipating and managing risks effectively to protect our capital and reputation.

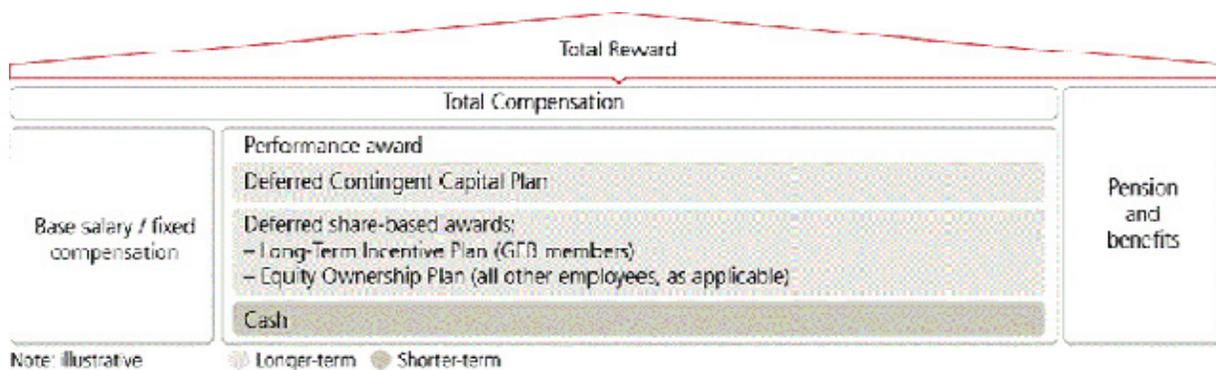
Our Total Reward approach

At UBS, we apply a holistic Total Reward approach, generally consisting of fixed compensation (base salary and role-based allowances, if applicable), performance awards, pension contributions and benefits. Our Total Reward approach is structured to support sustainable results and growth ambitions.

For employees whose total compensation exceeds certain levels, performance awards are delivered in a combination of cash, deferred contingent capital awards and deferred share-based awards.

A substantial portion of performance awards is deferred and vests over a five-year period (or longer for certain regulated employees). This deferral approach supports alignment of employee and investor interests, our capital base and the creation of sustainable shareholder value.

- **Refer to "Compensation elements for all employees" in the "Group compensation" section of this report for more information**



Compensation governance

Board of Directors and Compensation Committee

The BoD is ultimately responsible for approving the compensation strategy and principles proposed by the Compensation Committee, which determines compensation-related matters in line with the principles set forth in the AoA.

As determined in the AoA and the firm's Organization Regulations, the Compensation Committee supports the BoD with its duties to set guidelines on compensation and benefits, to oversee implementation thereof, to approve certain compensation and to scrutinize executive performance. The Compensation Committee consists of independent BoD members, who are elected annually by shareholders at the AGM, and is responsible for governance and oversight of our compensation process and practices. This includes the alignment between pay and performance, and ensuring that the compensation framework supports appropriate risk awareness and management, as well as appropriate risk-taking. In 2022, to additionally support the connection between the Compensation Committee and the Risk Committee, the Compensation Committee Chairperson was also a member of the Risk Committee.

Annually, and on behalf of the BoD, the Compensation Committee:

- reviews our Total Reward Principles;
- approves key features of the compensation framework and plans for the non-independent Board members and GEB members;
- reviews performance award funding throughout the year and proposes, upon proposal of the Group CEO, the final annual Group performance award pool to the BoD for approval;
- upon proposal of the Group CEO, reviews the performance framework for the other GEB members;
- upon proposal of the Group CEO, proposes the performance assessments and the individual total compensation for the other GEB members for approval by the BoD;
- upon proposal of the Chairman, for the Group CEO, proposes the financial and non-financial performance targets and objectives, the performance assessment and the total compensation for approval by the Board;
- approves the total compensation for the Chairman and the non-independent Board members;
- upon proposal of the Chairman, proposes the remuneration / fee framework for independent Board members for approval by the Board;
- upon proposal of the Chairman and Group CEO, approves the remuneration / fee frameworks for external supervisory board members of Significant Group Entities and is informed of remuneration / fee frameworks for external supervisory board members of Significant Regional Entities;
- proposes to the BoD for approval the annual compensation report and approves other material public disclosures on UBS compensation matters; and
- proposes to the BoD, for approval by the AGM, the maximum aggregate amounts of BoD compensation and GEB fixed compensation and the aggregate amount of variable compensation for the GEB.

The Compensation Committee is required to meet at least four times each year. All meetings in 2022 were held in the presence of the Chairman and the Group CEO and most were attended by external advisors. Individuals, including the Chairman and the Group CEO, are not permitted to attend a meeting or participate in a discussion on their own performance and compensation.

After the meetings, the Chairperson of the Compensation Committee reports to the BoD on the Compensation Committee's activities and discussions and, if necessary, submits proposals for approval by the full BoD. Compensation Committee meeting minutes are also sent to all members of the BoD.

On 31 December 2022, the members of the Compensation Committee were Julie G. Richardson (Chairperson), Dieter Wemmer and Jeanette Wong.

- **Refer to "Board of Directors" in the "Corporate governance" section of our Annual Report 2022 for more information**

External advisors

The Compensation Committee may retain external advisors to support it in fulfilling its duties. In 2022, HCM International Ltd. (HCM) provided independent advice on compensation matters. HCM holds no other mandates with UBS. Additionally, Willis Towers Watson provided the Compensation Committee with data on market trends and pay levels. Various subsidiaries of Willis Towers Watson provide similar information to UBS's human resources department in relation to compensation for employees. Willis Towers Watson holds no other compensation-related mandates with UBS.

The Risk Committee's role in compensation

The Risk Committee, a committee of the BoD, works closely with the Compensation Committee with the goal of ensuring that our compensation framework appropriately reflects risk awareness and management, and supports appropriate risk-taking. It supervises and sets appropriate risk management and risk control principles and is regularly briefed on how risk is factored into the compensation process. It also monitors the involvement of Group Risk Control and Compliance and Operational Risk in compensation and reviews risk-related aspects of the compensation process.

- **Refer to ubs.com/governance for more information**

Compensation Committee 2022 / 2023 key activities and timeline

	April	July	Sept	Oct	Nov	Dec ¹	Jan	Feb
Strategy, policy and governance								
Total Reward Principles			•					
Sustainability / ESG in the compensation process		•				•	•	
Compensation disclosure and stakeholder communication matters		•				•		•
AGM reward-related items		•					•	
Compensation Committee governance								•
Annual compensation review								
Accruals and full-year forecast of the performance award pool funding		•			•	•	•	
Performance targets and performance assessment of the Group CEO and GEB members		•				•	•	
Group CEO and GEB members' salaries and individual performance awards		•				•	•	
Update on market practice, trends and peer group matters	•	•			•		•	
Pay for performance, including governance on certain higher-paid employees, and non-standard compensation arrangements	•	•	•		•	•	•	•
Board of Directors remuneration							•	
Compensation framework								
Compensation framework and deferred compensation matters		•	•				•	•
Risk and regulatory								
Risk management in the compensation approach and joint meeting with BoD Risk Committee	•			•	•		•	
Regulatory activities impacting employees and engagement with regulators		•		•		•		•

1 The Compensation Committee held two meetings in December 2022.

Compensation governance

The table below provides an overview of compensation governance by specific role.

Recipients	Compensation recommendations proposed by	Approved by
Chairman of the BoD and Vice Chairman of the BoD	Compensation Committee	Compensation Committee ¹
Other BoD members	Compensation Committee and Chairman of the BoD	BoD ¹
Group CEO	Compensation Committee and Chairman of the BoD	BoD ¹
Other GEB members	Compensation Committee and Group CEO	BoD ¹
Key Risk Takers (KRTs) / senior employees	Respective GEB member and functional management team	Individual compensation for KRTs and senior employees: Group CEO

1 Aggregate variable compensation and maximum aggregate amount of fixed compensation for the GEB, as well as maximum aggregate remuneration for the BoD, are subject to shareholder approval.

Environmental, Social and Governance considerations

Environmental, social and governance in the compensation determination process

Environmental, social and governance (ESG) objectives are considered in the compensation determination process in objective setting, performance award pool funding, performance evaluation and compensation decisions.

ESG-related objectives have been embedded in our Pillars and Principles since they were established in 2011. In 2021, we introduced explicit sustainability objectives in the non-financial goal category of the Group CEO and GEB scorecards. These sustainability objectives are linked to our priorities, and their progress is measured via robust quantitative metrics and qualitative criteria. The table below provides an overview of our metrics and progress achieved in 2022, including climate-related goals under the priority “Planet.” Sustainability objectives are individually assessed for each GEB member, and consequently directly impact their performance assessments and compensation decisions.

In addition, in the performance award pool funding across the Group, ESG is also reflected through an assessment of progress made against targets linked to our focus areas of Planet, People (including progress made against our diversity ambitions) and Partnerships, alongside other key dimensions. Therefore, ESG is taken into consideration when the Compensation Committee assesses not only what results were achieved but also how they were achieved.

For 2022, we established robust and concrete targets, and made good progress toward achieving them. We continue to increase our focus on this topic.

- **Refer to “GEB performance assessments” in the “Compensation for GEB members” section of this report for more information about the GEB performance measurement process**
- **Refer to “Our focus on sustainability and climate,” “Employees” and “Society” in the “How we create value for our stakeholders” section of our Annual Report 2022 for more information**
- **Refer to ubs.com/gri for more information about ESG-related topics**

Paying our people fairly and equitably

Pay equity and equal opportunity are fundamental to achieving our purpose. To connect for a better world, providing equal support to all our employees, with their diverse experiences, perspectives and backgrounds, is critical to our success. Factors such as gender, race, ethnicity, part-time status or a recent leave of absence should not impact opportunities.

Fair and consistent pay practices are designed to ensure that employees are appropriately rewarded for their contribution. We pay for performance, and we take pay equity seriously. We’ve embedded clear commitments in our global compensation policies and practices, and we regularly conduct internal reviews and external audits as quality checks. If we find any gaps not explained by business or by appropriate employee factors such as role, responsibility, experience, performance or location, we look at the root causes and address them.

Since 2020, we have been certified under the EQUAL-SALARY Foundation standards for our human resources practices in Switzerland, the US, the UK, the Hong Kong SAR and Singapore, covering more than two-thirds of our global employee population. Our global human resources policies and standards, including reward, performance management and promotion, from hiring through retirement, are reviewed annually to further improve our approach and processes. Our processes are global and we apply the same standards across all our locations.

The firm also successfully completed an equal pay analysis in Switzerland in 2020, as required by the Swiss Federal Act on Gender Equality. The results of the analysis confirmed that we are fully compliant with Swiss equal pay standards. These holistic certifications are a testament to our well-established equal opportunity environment and the strength of our human resources practices, including performance and reward.

In 2022, we extended our internal fair pay analysis by assessing employees’ salaries against local living wages, using benchmarks defined by the Fair Wage Network. Excluding our US Financial Advisor population and their related support population (as their compensation is primarily based on a formulaic approach), our analysis showed that employees’ salaries were at or above the respective benchmarks, and the few outliers have all been addressed. UBS is committed to fair pay and supports all employees being paid at least a living wage.

Our aspirational goals and progress

Our priorities	Our aspirational goals	Our progress in 2022
Planet, people, partnerships	USD 400bn invested assets in sustainable investments by 2025.	Increased invested assets in sustainable investments to USD 268bn (compared with USD 251bn in 2021).
Planet	<p>Decarbonization targets for 2030 for financing of the real estate, fossil fuels, power generation and cement sectors (from 2020 levels):</p> <ul style="list-style-type: none"> reduce emissions intensity of UBS's residential real estate lending portfolio by 42%; reduce emissions intensity of UBS's commercial real estate lending portfolio by 44%; reduce absolute financed emissions associated with UBS loans to fossil fuel companies by 71%; reduce emissions intensity associated with UBS loans to power generation companies by 49%; and reduce emissions intensity associated with UBS loans to cement companies by 15%. 	<p>Calculated progress against pathways for the real estate (commercial and residential), fossil fuel and power generation sectors:¹</p> <ul style="list-style-type: none"> reduced emissions intensity of UBS's residential real estate lending portfolio by 8% (end of 2021 vs 2020 baseline); reduced emissions intensity of UBS's commercial real estate lending portfolio by 7% (end of 2021 vs 2020 baseline); reduced absolute financed emissions associated with UBS loans to fossil fuel companies by 42% (end of 2021 vs 2020 baseline); and reduced emissions intensity associated with UBS loans to power generation companies by 12% (end of 2021 vs 2020 baseline). <p>Introduction of an additional decarbonization target for the cement sector, as well as an estimation of the overall financed emissions.</p>
	Align 20% of AuM to be managed in line with net zero (Asset Management). ²	Initiated analysis of revisions to fund documentation and investment management agreements to align with Asset Management's net-zero-aligned frameworks.
	Achieve net-zero emissions across discretionary client portfolios by 2050 (Asset Management). ³	
	Achieve net-zero energy emissions resulting from our own operations (scopes 1 and 2) by 2025; cut energy consumption by 15% by 2025 (compared with 2020).	Reduced net greenhouse gas (GHG) footprint for scope 1 and 2 emissions by 13% and energy consumption by 8% (compared with 2021); continued implementation of the replacement of fossil fuel heating systems and investing in credible carbon removal projects; achieved 99% renewable electricity coverage despite challenging market conditions.
	Offset historical emissions back to the year 2000 by sourcing carbon offsets (by year-end 2021) and by offsetting credit delivery and full retirement in registry (by year-end 2025).	Continued to follow up on credit delivery and retirement of sourced portfolio.
	Engage with key vendors on aiming for net zero by 2035.	Identified "GHG key vendors" (vendors that collectively account for >50% of our estimated vendor GHG emissions) and invited the vendors that accounted for 67% of our annual vendor spend (including all GHG key vendors) to disclose their environmental performance through CDP's Supply Chain Program, with 66% of the invited vendors completing their disclosures in the CDP platform.
People	30% global female representation at Director level and above by 2025.	Increased to 27.8% (2021: 26.7%) female representation at Director level and above.
	26% of US roles at Director level and above held by employees from ethnic minorities by 2025.	Increased to 20.4% (2021: 20.1%) ethnic minority representation at Director level and above in the US.
	26% of UK roles at Director level and above held by employees from ethnic minorities by 2025.	Increased to 23.0% (2021: 21.3%) ethnic minority representation at Director level and above in the UK.
	Raise USD 1bn in donations to our client philanthropy foundations and funds and reach 25 million beneficiaries by 2025 (cumulative for 2021–2025).	Achieved a UBS Optimus Foundation network donation volume of USD 274m in 2022, totaling USD 436m since 2021 (both figures include UBS matching contributions).
		Reached 5.9 million beneficiaries.



Support 1.5 million young people and adults to learn and develop skills through our community impact activities (2022–2025). Reached 370,916 beneficiaries through strategic community impact activities.⁴

Partnerships



Establish UBS as a leading facilitator of discussion, debate and idea generation.

Co-organized, with the Institute of International Finance, the first Wolfsberg Forum for Sustainable Finance.

Joined a consortium that is pioneering methods of assessing and maximizing the GHG reduction potential of energy storage.

Co-founded Carbonplace, a technology platform for the voluntary carbon market that has the goal of creating a streamlined and transparent market for our clients.

Drive standards, research and development, and product development.

Co-led the Taskforce on Nature-related Financial Disclosures' financial-sector-specific working group.

Collaboration with two Swiss companies that are pioneering innovative carbon removal technologies.

Joined the Partnership for Carbon Accounting Financials (PCAF).

- 1 Refer to the “Environment” section of our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for further information. The inherent one-year time lag between the as-of date of our lending exposure and the as-of date of emissions can be explained by two factors: corporates disclose their emissions in annual reporting only a few months after the end of a financial year; and specialized third-party data providers take up to nine months to collect disclosed data and make it available to data users. Consequently, the baselines for our net-zero ambitions are based on year-end 2020 lending exposure and 2019 emissions data. Our 2021 emissions actuals are based on year-end 2021 lending exposure and 2020 emissions data.
- 2 The 20% alignment goal amounted to USD 235bn at the time of Asset Management’s commitment in 2021. By 2030, the weighted average carbon intensity of funds is to be 50% below the carbon intensity of the respective 2019 benchmark.
- 3 The near- and medium-term plans for the achievement of this goal include our Asset Management business division only.
- 4 Our Community Impact program has a strategic focus on education and the development of skills.

Cautionary note: We have developed methodologies that we use to set our climate-related targets and identify climate-related risks and which underly the metrics that are disclosed in this report. Standard setting organizations and regulators continue to provide new or revised guidance and standards, as well as new or enhanced regulatory requirements for climate disclosures. Our disclosed metrics are based upon data available to us, including estimates and approximations where actual or specific data is not available. We intend to update our disclosures to comply with new guidance and regulatory requirements as they become applicable to UBS. Such updates may result in revisions to our disclosed metrics, our methodologies and related disclosures, which may be substantial, as well as changes to the metrics we disclose.

- **Refer to our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information**

Build a diverse, equitable and inclusive workplace

Our diversity, equity and inclusion (DE&I) strategy and initiatives focus on a wide range of characteristics including gender, gender identity, sexual orientation, ethnic diversity, disabilities, age, and veteran status, along the entire employee life cycle. Our businesses aim to hire individuals with strong potential along with diverse skills, backgrounds and perspectives. We invest in the development of all employees and give them the visibility and opportunities to realize their potential, and implement Group-wide divisional and regional initiatives that support their career growth. These efforts collectively support the progress towards achieving our DE&I aspirational goals. For example, our partnerships with the Investments and Wealth Institute (the IWI) and Kaplan Financial Education in the US provide scholarships for diverse Wealth Management professionals at UBS to pursue industry certifications in investment management, private wealth advisory, retirement management and financial planning. Our leaders and employee networks are essential in our work to build a sense of belonging and to advance our goals.

We have an ongoing focus on the importance of inclusive leadership skills, ensuring equity in our policies and practices, and increasing the representation of women and ethnic minority employees. We take a multi-faceted approach that considers recruitment, development and belonging perspectives. For example, we support flexible working arrangements that benefit current employees and help us attract a more diverse pool of applicants. We also assess executive candidates for inclusive leadership competencies.

In 2020, we outlined our intention to increase our female and ethnic minority representation, especially among management, and we have made steady progress toward achieving those aspirations. Women now account for 41% of our workforce and 27.8% of our Director-level and above population. At the same time, 42% of our GEB members are female. Due to variations in legal requirements and historical progress, we continue to take a country-specific approach to increasing our representation of ethnic minorities, and we have published aspirations for the US and the UK, specifically. In 2022, we increased the ethnic minority representation at Director level and above to 20.4% (in the US) and 23.0% (in the UK).

Progress against these aspirations is considered in the determination of the annual performance award pool and included in the sustainability objectives under “Strategic & Growth” for the GEB, as outlined in the table above.

- **Refer to the “People and culture make the difference” section of our Sustainability Report 2022, available under “Annual reporting” at ubs.com/investors, for more information about DE&I**

Performance award pool funding

Our compensation philosophy focuses on balancing performance with appropriate risk-taking, retaining talented employees and shareholder returns. Our overall performance award pool funding percentage decreases as financial performance increases. In years of strong financial performance, this prevents excessive compensation and results in an increased proportion of profit before performance awards being available for distribution to shareholders or growing the Group’s capital. In years where performance declines, the performance award pool will generally decrease; however, the funding percentage may increase.

Our performance award pool funding framework is based on Group and business division performance, including achievements against defined performance measures. In assessing performance, we also consider industry peers, market competitiveness of our results and pay position, as well as progress against our strategic objectives, including returns, risk-weighted assets and cost efficiency. The Risk and Compliance functions support our holistic reflection and consideration of the financial and non-financial impact (including reputation) of risk matters. We further consider the firm’s risk profile and culture, the extent to which operational risks and audit issues have been identified and resolved, and the success of risk reduction initiatives including significant events.

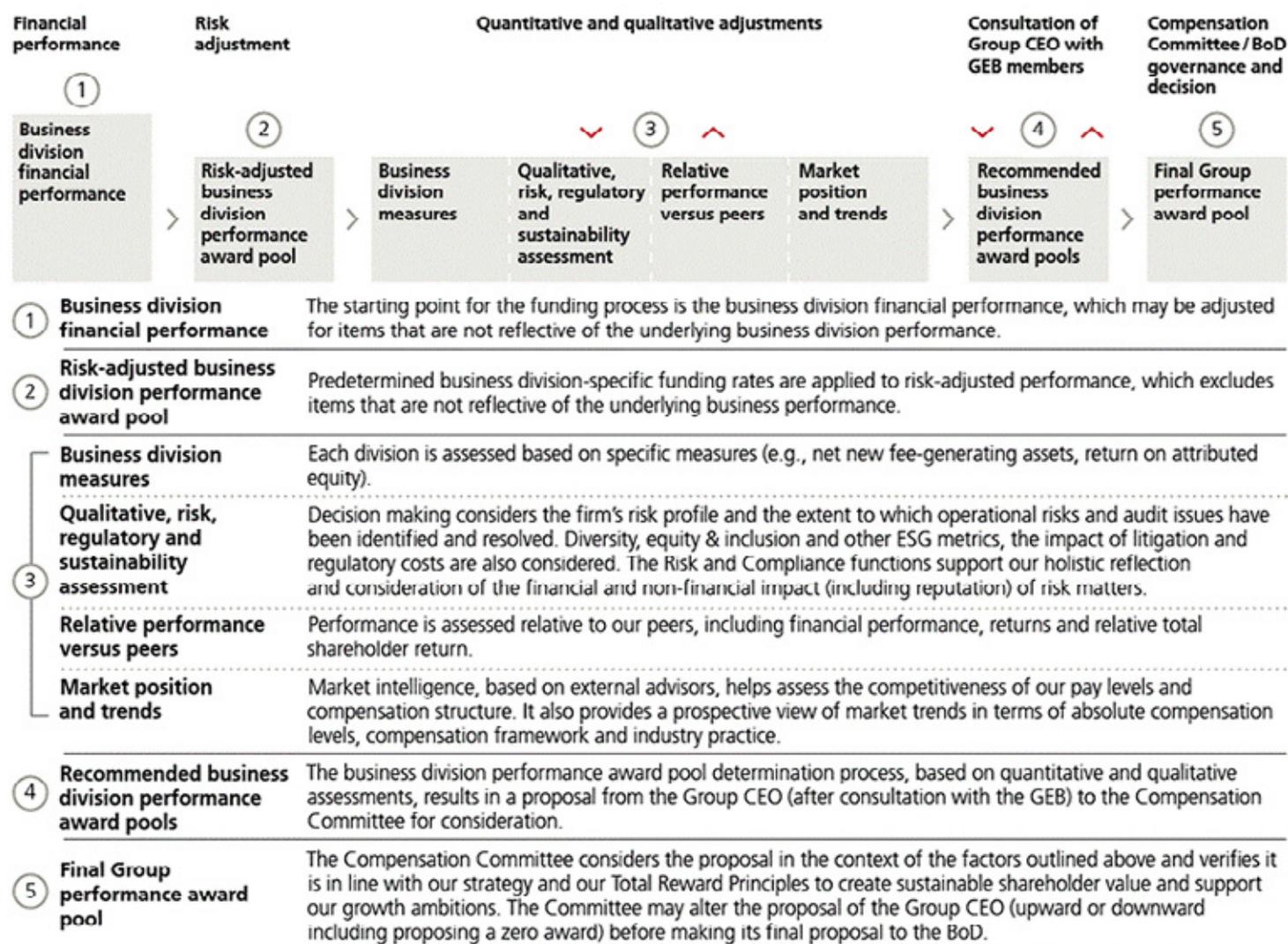
The funding for Group Functions is linked to overall Group performance and reflects headcount, workforce location and demographics. For each functional area, quantitative and qualitative assessments evaluate service quality, risk management and financial achievements.

Our decisions regarding the performance award pool also balance consideration of financial performance with a range of factors, including DE&I and other ESG metrics, the impact of litigation, regulatory costs, the effect of changes in financial accounting standards, capital returns and relative total shareholder return.

Before making its final proposal to the BoD, the Compensation Committee considers the CEO’s proposals and can apply a positive or negative adjustment to the performance award pool.

- **Refer to “2022 Group performance outcomes” in the “Group compensation” section of this report**
- **Refer to the “Group performance” section of our Annual Report 2022 for more information about our results**

Performance award pool funding process – illustrative overview



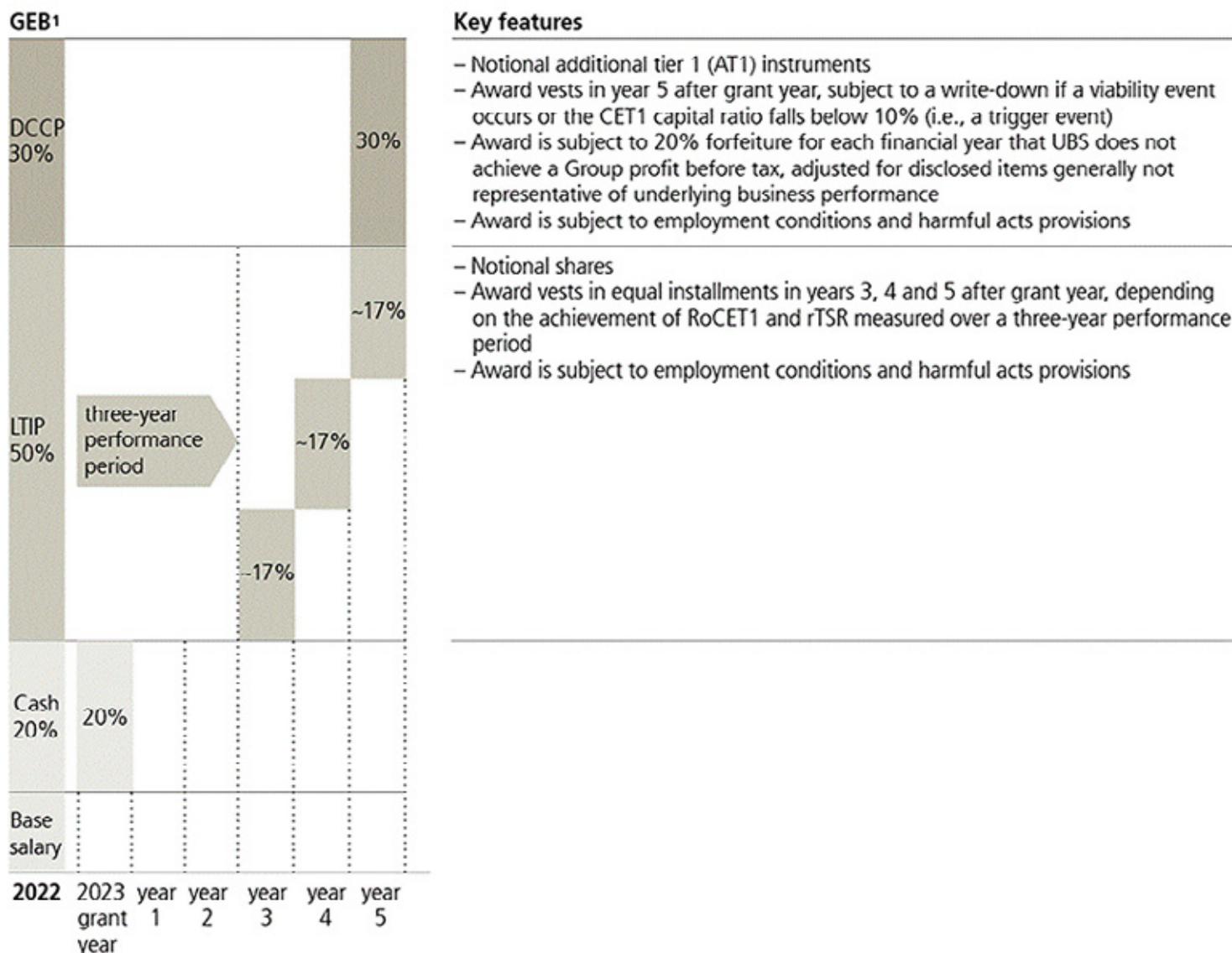
Compensation for GEB members

GEB compensation framework

In 2022, we made no changes to our GEB compensation framework. The chart below illustrates the compensation elements, pay mix and key features for GEB members. Of the annual performance award, 20% is paid in the form of cash and 80% is deferred over a period of five years,¹ with 50% of the annual performance awards granted under the Long-Term Incentive Plan (the LTIP) and 30% under the Deferred Contingent Capital Plan (the DCCP).

- Refer to “Our deferred compensation plans” in the “Group compensation” section of this report for more information

2022 compensation framework for GEB members (illustrative example)



¹ Performance awards to GEB members who are SMF / MRT are subject to additional deferral and vesting requirements.

- Refer to the “Group Compensation” section of this report for more information
- Refer to “Regulated staff” in the “Supplemental information” section of this report for more information

Pay-for-performance safeguards for GEB members

- Performance award caps**
 - Cap on the total GEB performance award pool (2.5% of profit before tax)¹
 - Caps on individual performance awards (for the Group CEO capped at five times the fixed compensation and at seven times for the other GEB members)
 - Cap of 20% of performance award in cash
- Delivery and deferral**
 - 80% of performance awards are at risk of forfeiture
 - Long-term deferral over five years (or longer for certain regulated GEB members)
 - Alignment with shareholders (through the LTIP) and bondholders (through the DCCP)
 - Final payout of equity-based LTIP award (50% of performance award) subject to absolute and relative performance conditions (three-year performance period)
- Contract terms**
 - No severance terms
 - Notice period between six and twelve months
- Other safeguards**
 - Share ownership requirements
 - No hedging allowed

¹ The Compensation Committee may consider adjustments to profit for items that are not reflective of underlying performance.

GEB share ownership requirements

To align the interests of GEB members with those of our shareholders and to demonstrate personal commitment to the firm, we require the Group CEO and the other GEB members to hold a substantial number of UBS shares. GEB members must reach their minimum shareholding requirements within five years from their appointment and retain it throughout their tenure. The total number of UBS shares held by a GEB member consists of any vested or unvested shares and any privately held shares. At the end of 2022, all GEB members met their share ownership requirements, except for those appointed within the last three years, who still have time to build up and meet the required share ownership.

As of 31 December 2022, our GEB members held shares with an aggregate value of approximately USD 154m, demonstrating their commitment to our strategy and alignment with shareholders.

Share ownership requirements

Group CEO	min. 1,000,000 shares	Must be built up within five years from their appointment and retained throughout their tenure
Other GEB members	min. 500,000 shares	

GEB base salary and role-based allowance

Each GEB member receives a fixed base salary, which is reviewed annually by the Compensation Committee. The 2022 annual base salary for the Group CEO role was CHF 2.5m and has remained unchanged since 2011. The other GEB members each received a base salary of CHF 1.5m (or local currency equivalent), also unchanged since 2011.

Over the course of 2022, one GEB member held a UK Senior Management Function (SMF) role for one of our UK entities. In addition to base salary, a role-based allowance was part of the fixed compensation.

At the AGM, shareholders are asked to approve the maximum aggregate amount of fixed compensation for GEB members for the following financial year.

- **Refer to the “Supplemental information” section of this report for more information about Material Risk Takers (MRTs) and SMFs**
- **Refer to the “Say-on-pay” section of this report for more information about the AGM vote on fixed compensation for the GEB**

Caps on the GEB performance award pool

The size of the GEB performance award pool may not exceed 2.5% of the Group’s profit before tax. This limits the overall GEB compensation based on the firm’s profitability.

For 2022, the Group’s profit before tax was USD 9.6bn and the total GEB performance award pool was CHF 81.1m. The GEB performance award pool was 0.9% of Group profit before tax, well below the 2.5% cap.

In line with the individual compensation caps on the proportion of fixed pay to variable pay for all GEB members (introduced in 2013), the Group CEO’s granted performance award is capped at five times his fixed compensation. Granted performance awards of other GEB members are capped at

seven times their fixed compensation (or two times for GEB members who are also MRTs). For 2022, performance awards granted to GEB members and the Group CEO were, on average, 3.5 times their fixed compensation (in Swiss franc terms, excluding one-time replacement awards, benefits and contributions to retirement plans).

- **Refer to “Performance award pool funding” in the “Compensation philosophy and governance” section of this report for more information**

GEB employment contracts

GEB members' employment contracts do not include severance terms or supplementary pension plan contributions and are subject to a notice period of between six and twelve months. A GEB member leaving UBS before the end of a performance year may be considered for a performance award. Such awards are subject to approval by the BoD, and ultimately by the shareholders at the AGM.

Benchmarking for GEB members

When recommending performance awards for the Group CEO and the other GEB members, the Compensation Committee reviews the respective total compensation for each role against a financial industry peer group. The peer group is selected based on comparability of their size, business mix, geographic presence and the extent to which they compete with us for talent. The Compensation Committee considers our peers' strategies, practices and pay levels, as well as their regulatory environment; it also periodically reviews other firms' pay levels or practices, including both financial and non-financial sector peers, as applicable. The total compensation for a GEB member's specific role considers the compensation paid by our peers for a comparable role and performance within the context of our organizational profile. The Compensation Committee periodically reviews and approves the peer group composition.

The table below presents the composition of our peer group as approved by the Compensation Committee for the 2022 performance year.

Bank of America	Goldman Sachs
Barclays	HSBC
BlackRock	JPMorgan Chase
BNP Paribas	Julius Baer
Citigroup	Morgan Stanley
Credit Suisse	Standard Chartered
Deutsche Bank	State Street

GEB performance assessments

We assess each GEB member's performance against a set of Group financial targets, non-financial objectives and Behaviors. Under the non-financial objectives, we maintained the categories introduced in 2021: Core Job (which covers job-specific, risk and people objectives) and Strategic & Growth (which covers strategy, digital, and environmental, social and governance (ESG) objectives). This approach fosters an even greater focus on GEB priorities and the success of the Group overall among all GEB members, and strengthens the understanding and importance of interdependence within and across the GEB. At the same time, it creates stronger individual accountability, and further increases the focus on core activities.

The Compensation Committee exercises its judgment with respect to the performance achieved relative to the prior year, our strategic plan and our competitors, and considers the Group CEO's proposals. The Compensation Committee's proposals are subject to approval by the BoD.

The Compensation Committee, and then the full BoD, follows a similar process for the Group CEO, except that the proposal comes from the Chairman of the BoD.

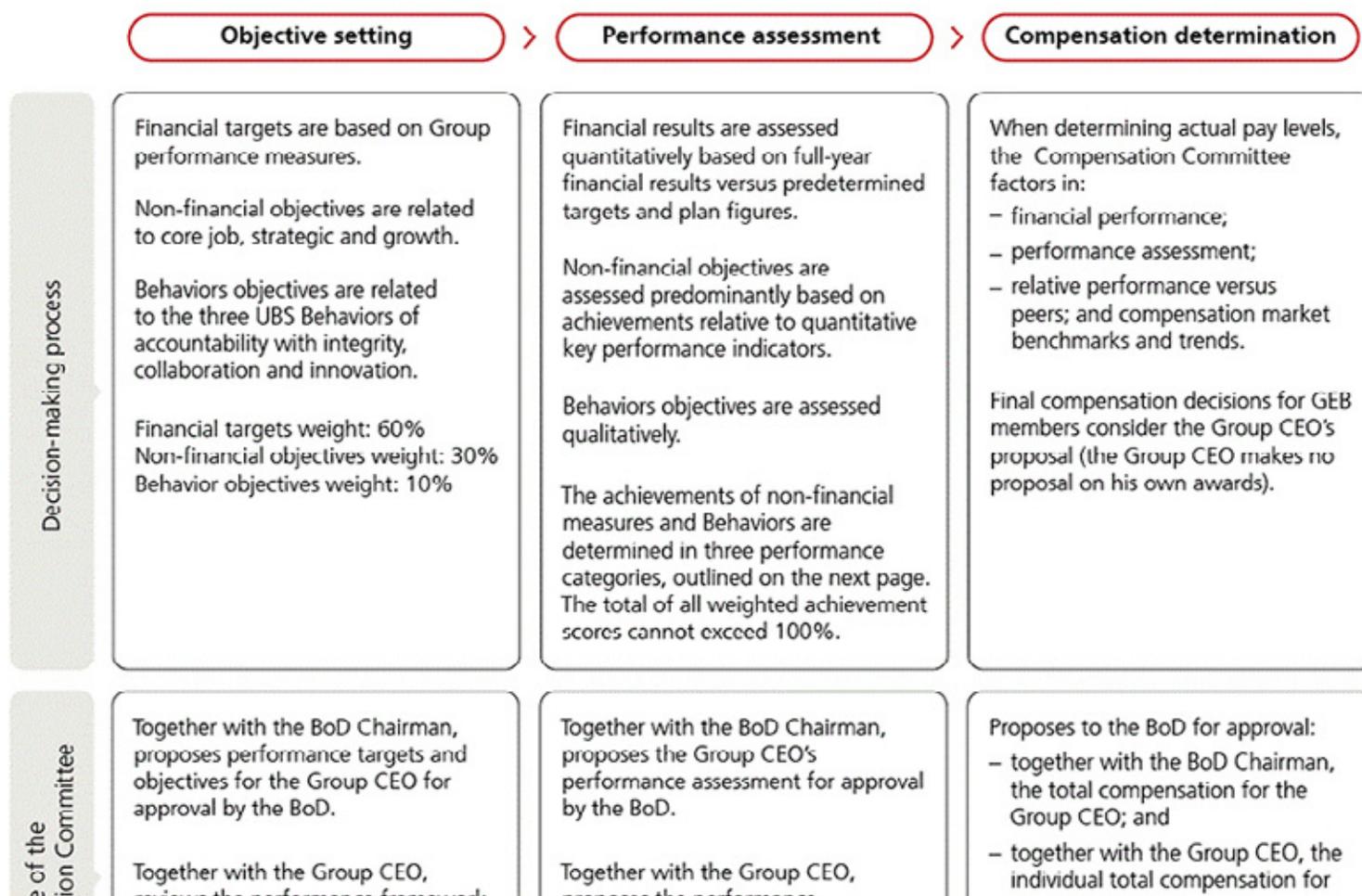
Overview of the GEB compensation determination process

The compensation for the Group CEO and the other GEB members is governed by a rigorous process under Compensation Committee and BoD oversight. The chart below shows how compensation for all GEB members is determined.

Overview of the GEB compensation determination process

The compensation for the Group CEO and the other GEB members is governed by a rigorous process under Compensation Committee and BoD oversight. The chart below shows how compensation for all GEB members is determined.

The Compensation Committee is involved at all stages of the performance and total compensation decision-making process for the Group CEO and the other GEB members, for review and approval by the BoD.



<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Role Compensation</p>	<p>reviews the performance framework for the other GEB members.</p>	<p>proposes the performance assessments of the other GEB members for approval by the BoD.</p>	<p>the other GEB members. The final decision on the aggregate amount is subject to shareholder approval.</p>
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Overview of performance assessment measures

We apply a range of quantitative measures to assess GEB member performance against financial and non-financial objectives while Behaviors are assessed qualitatively. The table below provides a summary of the main metrics and measures used for 2022.

Financial measures (60%)		<ul style="list-style-type: none"> Reported Group profit before tax Reported Group cost / income ratio Reported Return on CET1 capital
Non-financial measures (30%)	Strategic & Growth	<ul style="list-style-type: none"> Strategy <ul style="list-style-type: none"> Progress on Group-wide transformation initiatives Delivery on division- / function-specific strategic programs and initiatives Digital <ul style="list-style-type: none"> Progress on digital transformation initiatives Delivery of digital offering and user experience for clients ESG <ul style="list-style-type: none"> Refer to the "Our aspirational goals and progress" table in the "Environmental, Social and Governance considerations" section of this report
	Core Job	<ul style="list-style-type: none"> Job-specific <ul style="list-style-type: none"> Business-specific criteria, such as net new investable asset targets and client engagement-level objectives Operating income growth targets for specific client segments and total cost goals Post-stress CET1 objectives and capital ratio guidance Execution progress regarding key client and internal initiatives; e.g., cross-divisional collaboration initiatives, efficiency and cost-saving initiatives Risk <ul style="list-style-type: none"> Operating within risk appetite constraints Progress to delivering on risk reduction initiatives People <ul style="list-style-type: none"> Employee listening / sentiment results and feedback Progress toward meeting 2025 ambitions for female representation and for ethnic minority representation in the US and the UK at Director and above levels (as per ESG disclosure) People development, mobility, turnover and succession plan metrics
	Accountability with integrity	<ul style="list-style-type: none"> Responsible for what they say and do Takes ownership and makes things happen Steps up and acts when something is not right
	Collaboration	<ul style="list-style-type: none"> Qualitative assessment against expected Behaviors: <ul style="list-style-type: none"> Trusts others and helps them to be successful Delivers One UBS, together with their colleagues Fosters a diverse, inclusive and equitable work environment
	Innovation	<ul style="list-style-type: none"> Challenges perspectives and looks at every opportunity to improve Actively seeks and provides feedback Learns from every success and failure

Performance assessment categories

The table below presents the three performance categories for the assessment of the performance against non-financial objectives related to Core Job, Strategic & Growth and Behaviors. The achievement score represents the maximum percentage, and the Compensation Committee may apply downward adjustments.

Needs focus Achievement score: up to 33%	Non-financial measures	Excellent contribution
	Good contribution	Excellent contribution
	Achievement score: up to 66%	Achievement score: up to 100%
Needs focus Achievement score: up to 33%	Behaviors	Exemplary behavior
	Expected behavior	Exemplary behavior
	Achievement score: up to 66%	Achievement score: up to 100%

2022 performance for the Group CEO

The performance award for the Group CEO is based on the achievement of financial performance targets and non-financial objectives related to Core Job, Strategic & Growth and Behaviors, as described earlier in this section.

These objectives were set to reflect the strategic priorities determined by the Chairman and the BoD.

- Refer to “GEB compensation framework” in this section of this report for more information

Performance assessment for the Group CEO

The BoD recognized that Ralph Hamers successfully led UBS through a challenging year and delivered good financial results despite significant headwinds due to geopolitical and macroeconomic developments. In this environment, he focused the firm on maintaining client momentum and the disciplined execution of our strategy across regions to deliver the benefits of our geographic diversification. Furthermore, the resulting growth enabled us to achieve a performance in line with our 2022 targets. In addition, our strong capital position enabled us to return USD 7.3bn of capital to shareholders for the 2022 financial year.

Furthermore, Mr. Hamers effectively led the Group through the challenging and volatile risk environment and continued to promote an effective risk culture throughout the organization. He also kept the firm focused on risk reduction and operating within our risk appetite.

Additionally, the BoD acknowledged that Mr. Hamers continued to be a strong ambassador for the drive to make our organization more digital. He continued to increase the Group’s focus on technology as a differentiator for our clients and employees, achieving important progress on our technology initiatives and agile transformation that benefit clients and employees.

Mr. Hamers successfully continued to focus the Group on delivering on its diversity, equity and inclusion (DE&I) strategy and initiatives. Important progress was made in our diversity and ethnicity ambitions and it remains a key area of focus. He also successfully managed Group Executive Board (GEB) transitions that rejuvenated the GEB and increased the female ratio on the GEB to 42%.

Mr. Hamers continued to demonstrate strong leadership and focus on delivering the Group’s sustainability strategy, including the commitment to net zero. He continued to focus the organization to deliver on the ambitions in the key ESG focus areas including a reduction of 11% in scope 1 and 2 emissions year on year, partnering with two pioneering companies on CO2 removal, supporting clients with USD 268bn invested assets in sustainability-focused and impact investments. As a result, UBS retained its position amongst the leaders in the field, as evidenced by the ratings from the most important independent sustainability rating agencies.

The table below illustrates the assessment criteria used to evaluate the achievements of Mr. Hamers in 2022.

Financial performance

Weight	Performance measures	2022 targets	2022 results	Achievement ²	Weighted assessment	2022 commentary
20%	Reported Group PBT	USD 9.8bn	USD 9.6bn	97.6%	19.5%	• Profit before tax (PBT) increased to USD 9.6 bn, slightly below target but up from 2021 and the highest annual result since 2006, reflecting good profitability in a challenging market.
20%	Reported Group C/I ratio	70 to 73% ¹	72.1%	100% ³	20.0%	• The cost / income (C/I) ratio was 72.1%, in line with the 2022 performance target range and an improvement of 1.5 percentage points compared with 2021. This demonstrates good cost discipline in an inflationary environment.
20%	Reported RoCET1	15 to 18% ¹	17.0%	100%	20.0%	• Delivered strong capital returns with a return on CET1 capital (RoCET1) of 17.0%, in line with the 2022 performance target range.

1 The return on CET1 capital and cost / income ratio performance targets reflect externally communicated target ranges. The determination of the achievement is based on specific target levels defined within the indicated target ranges.

2 Achievement score capped at 100%.

3 For the assessment of the cost / income ratio, each 1% difference between actual and target affects the score by 10%.

Performance assessment for the Group CEO (continued)

Non-financial performance and Behaviors

Weight	Performance measures	Achievement	Weighted assessment	2022 commentary
30%		Good contribution (66%)	20%	<ul style="list-style-type: none"> The evaluation of each non-financial objective considers quantitative metrics that are assessed against internal targets / plan.
	Core Job (Job specific, Risk, People)			<p>Core Job</p> <ul style="list-style-type: none"> Good client momentum in a challenging market environment and maintained strong focus on managing our costs Active capital management to protect our business, enable growth and deliver attractive returns including executing USD 5.6bn in share buybacks Operated within risk appetite constraints Improved employee listening / sentiment results across key categories Successfully managed effective leadership transitions in GEB Continued focus on people diversity, with the ratio of female leaders increased to 28%, on track to meet the 2025 target; stayed on track toward the 2025 ambition for ratios of UK (23%) and US (20%) employees from ethnic minorities
	Strategic & Growth (Strategy, Digital, ESG)			<p>Strategic & Growth</p> <ul style="list-style-type: none"> Embedded our purpose into the organization and executed on the strategic imperatives, including executing across regions and delivering benefits of geographic diversification. Focused the Group to deliver simplification initiatives, making it easier for our businesses to deliver for our clients. Progressed our technology initiatives and agile transformation with new launches of key products such as Key4 in Switzerland, Circle One, and WE.UBS in China and approximately 18,500 employees operating in an agile work environment See ESG metrics and progress in separate table in this report
10%	Behaviors (Accountability with integrity, Collaboration, Innovation)	Expected behavior (66%)	7%	<p>The assessment of the Behavior objectives is qualitative and has resulted in the following summary assessment:</p> <ul style="list-style-type: none"> Mr. Hamers continued to be a role model in accountability and empowerment in the organization. He remained the most important ambassador of collaboration to deliver the whole firm to our clients. Mr. Hamers exemplifies innovation in UBS. He continued the successful digitalization through new ways of working and continuously promoted innovative thinking and simplification.
	Total weighted assessment (maximum 100%)		86.5%	

In addition to the overall 2022 Group performance and Mr. Hamers's achievements outlined above, the BoD also considered other factors, such as the Group's good profitability, UBS's performance in context of the underlying results and the strong relative share price performance. For context, as outlined in our compensation report last year, Mr. Hamers's 2021 performance award was additionally impacted by the significant risk event related to a loss from a US-based client of our prime brokerage business. The 2022 proposal considers a year-on-year change that reflects pay-for-performance and does not carry forward the 2021 impact over multiple years.

The BoD approved the proposal by the Compensation Committee to grant Mr. Hamers a performance award of CHF 9.7m, resulting in a total compensation for 2022 of CHF 12.2m (excluding benefits and contributions to his retirement benefit plan).

Aligned with the GEB compensation framework, the Group CEO's performance award will be delivered 20% (CHF 1.94m) in cash and the remaining 80% (CHF 7.76m) subject to deferral and forfeiture provisions, as well as meeting performance conditions over the next five years.

2022 total compensation for the GEB members

The 2022 GEB performance award pool is CHF 81.1m, which is an increase of 2% in Swiss franc terms and a decrease of 3% in US dollar terms. Adjusted for the direct impact of the 2021 loss event on specific GEB members, the 2022 GEB pool is down approximately 5% in Swiss franc terms or a decrease of 10% in US dollar terms, which is aligned with the Group pool development. This pool also considers the impact of changes in GEB composition and foreign exchange rates. This outcome reflects the solid performance of the GEB as demonstrated by the strength of our share price and the good performance of the Group in a challenging market environment, achieving our returns and efficiency targets on a reported basis, while also considering our underlying reported results.

At the 2023 AGM, shareholders will vote on the aggregate 2022 total variable compensation for the GEB in Swiss francs. The tables below provide the awarded compensation for the Group CEO and the GEB members in Swiss francs and, for reference, the total amounts in US dollars for comparability with financial performance. The individual variable performance awards for each GEB member will only be confirmed upon shareholder approval at the AGM.

- Refer to “Deferred compensation” in the “Supplemental information” section of this report for more information about the vesting of outstanding awards for GEB members
- Refer to “Provisions of the Articles of Association related to compensation” in the “Supplemental Information” section of this report for more information

Audited |

Total compensation for GEB members
CHF, except where indicated

For the year	Base salary	Contribution to retirement benefit plans	Benefits ²	Total fixed compensation	Cash ³	Performance award under LTIP ⁴	Performance award under DCCP ⁵	Total variable compensation	Total fixed and variable compensation ⁶	USD (for reference) ¹		
										Total fixed compensation	Total variable compensation	Total fixed and variable compensation ⁶
Group CEO Ralph Hamers (Highest Paid Executive excluding replacement awards)¹¹												
2022	2,500,000	242,239	198,378	2,940,617	1,940,000	4,850,000	2,910,000	9,700,000	12,640,617	3,050,684	10,063,071	13,113,755
2021	2,500,000	246,415	251,856	2,998,271	1,700,000	4,250,000	2,550,000	8,500,000	11,498,271			

Aggregate of all GEB members (excluding replacement awards)^{7,8,9,10,11,12}

2022	23,318,410	1,796,872	693,473	25,808,756	16,220,000	40,550,000	24,330,000	81,100,000	106,908,756	26,774,777	84,135,571	110,910,348
2021	24,853,521	2,064,009	1,179,512	28,097,041	15,950,000	39,875,000	23,925,000	79,750,000	107,847,041			

- Swiss franc amounts have been translated into US dollars for reference at the 2022 performance award currency exchange rate of CHF / USD 1.037430.
- All benefits are valued at market price.
- For GEB members who are also MRTs or SMFs, the cash portion includes blocked shares.
- LTIP awards for performance year 2022 were awarded at a value of 71.45% of maximum which reflects our best estimate of the fair value of the award. The maximum number of shares is determined by dividing the awarded amount by the estimated fair value of the award at grant, divided by CHF 20.092 or USD 21.790, the average closing price of UBS shares over the last ten trading days leading up to and including the award date in February.
- The amounts reflect the amount of the notional additional tier 1 (AT1) capital instrument excluding future notional interest.
- Excludes the portion related to the legally required employer’s social security contributions for 2022 and 2021, which are estimated at grant at CHF 4,675,424 and CHF 4,997,243, respectively, of which CHF 841,402 and CHF 763,059, respectively, are for the highest-paid GEB member (excluding replacement awards). The legally required employees’ social security contributions are included in the amounts shown in the table above, as appropriate.
- As stated in “Group Executive Board” in the “Corporate governance” section of our Annual Report 2022, twelve GEB members were in office on 31 December 2022 and 31 December 2021.
- Includes compensation paid under employment contracts during notice periods for GEB members who stepped down during the respective years.
- Includes compensation for newly appointed GEB members for their time in office as GEB members during the respective years.
- Base salary may include role-based allowances in line with market practice in response to regulatory requirements.
- The 2022 total compensation of Sarah Youngwood, Group CFO, including both the one-time replacement awards of her compensation forfeited upon joining UBS as well as her compensation for the 2022 performance year, amounts to a total of CHF 13,475,863 (which makes her the highest paid executive including replacement awards).
- For 2022, the one-time replacement awards of CHF 7,206,683 for Sarah Youngwood and CHF 65,229 for Naureen Hassan are not included in the above table; including these, the 2022 total aggregate compensation of all GEB members is CHF 114,180,668. For 2021, the one-time replacement award of CHF 7,081,474 for Barbara Levi is not included in the above table; including this, the 2021 total aggregate compensation of all GEB members is CHF 114,928,515.

Total realized compensation for the Group CEO

The realized compensation for the Group CEO reflects the total amount paid out in the year. It includes the base salary, cash performance award payments, and all deferred performance awards vested in the year. As such, realized pay is the natural culmination of awards granted and approved by shareholders in previous years.

To illustrate the effect of our long-term deferral approach, which has been in place since 2012, we disclose the annual realized compensation of Mr. Hamers, including a comparison with his total awarded compensation.

Total realized compensation vs awarded compensation for Ralph A.J.G Hamers

CHF

For the year	Base salary	Cash award ²	Performance award under equity plans ²	Performance award under DCCP ²	Realized	Awarded
					Total realized fixed and variable compensation	Total awarded fixed and variable compensation ^{3,4}
2022	2,500,000	1,700,000	0	0	4,200,000	12,200,000

2021	2,500,000	600,000	0	0	3,100,000	11,000,000
2020 ¹	833,333	0	0	0	833,333	3,833,333

- 1 Includes compensation for 4 months as Ralph A.J.G. Hamers joined UBS on 1 September 2020.
- 2 Excludes dividend / interest payments.
- 3 Excludes contributions to retirement benefit plans and benefits. Includes social security contributions paid by Ralph A.J.G. Hamers but excludes the portion related to the legally required social security contributions paid by UBS.
- 4 Excludes the one-time replacement award granted in 2020.

Group compensation

Compensation elements for all employees

All elements of pay are considered when making our compensation decisions. We regularly review our principles and compensation framework in order to remain competitive and aligned with stakeholders. In 2022, we made no material changes to our overall framework. We will continue to review our approach to salaries and performance awards, considering market developments, our performance and our commitment to deliver sustainable returns to shareholders.

Base salary and role-based allowance

Employees' fixed compensation (e.g., base salary) reflects their level of skill, role and experience, as well as local market practice. Base salaries are usually paid monthly or fortnightly, in line with local market practice. We offer competitive base salaries that reflect location, function and role. Salary increases generally consider promotions, skill set, performance and overall responsibility.

In addition to base salary, and as part of fixed compensation, some employees may receive a role-based allowance. This allowance is a shift in the compensation mix between fixed and variable compensation, not an increase in total compensation. It reflects the market value of a specific role and is fixed, non-forfeitable compensation. Unlike salary, a role-based allowance is paid only if the employee is in a specific role. Similar to previous years, 2022 role-based allowances consisted of a cash portion and, where applicable, a blocked UBS share award.

Pensions and benefits

We provide a range of benefit plans, such as retirement benefits and health insurance, aiming to provide financial protection in case of significant life events, and support our employees' well-being and diverse needs. Retirement and other benefits are set in the context of local market practice and regularly reviewed for competitiveness.

Pension plan rules in any one location are generally the same for all employees, including GEB members and other management. There are no enhanced or supplementary pension contributions for the GEB.

Performance award

Most of our employees are eligible for an annual performance award. The level of this award, where applicable, generally depends on the firm's overall performance, the employee's business division, team and individual performance, and behavior, reflecting their overall contribution to the firm's results. These awards are in line with applicable local employment conditions and at the discretion of the firm.

In addition to the firm's Pillars and Principles, Behaviors related to Accountability with integrity, Collaboration and Innovation are part of the performance management approach. Therefore, when assessing performance, we consider not only what was achieved but also how it was achieved.

Our deferred compensation plans

Underlining our emphasis on sustainable performance and risk management, and our focus on achieving our growth ambitions, we deliver part of our employees' annual variable compensation through deferred compensation plans. We believe that our approach, with a single incentive decision and a mandatory deferral, is transparent and well suited to implementing our compensation philosophy and delivering sustainable performance. This aligns the interests of our employees and shareholders and appropriately links compensation to longer-term sustainable performance.

Our mandatory deferral approach applies to all employees with regulatory-driven deferral requirements or total compensation greater than USD / CHF 300,000. Certain regulated employees, such as Senior Management Functions (SMFs) and Material Risk Takers (MRTs), are subject to additional requirements (e.g., more stringent deferral requirements and additional blocking periods). In addition, SMFs and MRTs receive 50% of their cash portion in the form of immediately vested shares, which are blocked for 12 months after grant.

The deferred amount increases at higher marginal rates in line with the value of the performance award. The effective deferral rate therefore depends on the amount of the performance award and the amount of total compensation.

We believe our deferral regime has one of the longest vesting periods in the industry. The weighted average deferral period for non-regulated employees is 4.4 years for GEB members and is 3.5 years for employees outside of the GEB. Additionally, from time to time, we may utilize alternative deferred compensation arrangements to remain competitive in specific business areas.

To further promote sustainable performance, all of our deferred compensation plans include employment conditions and malus conditions. These enable the firm to reduce or fully forfeit unvested deferred awards under certain circumstances, pursuant to performance and harmful acts provisions. In addition, forfeiture is triggered in cases where employment has been terminated for cause.

Our share delivery obligations related to notional share awards are satisfied by delivering treasury shares, which are purchased in the market, to employees at vesting.

- Refer to “**Note 27 Employee benefits: variable compensation**” in the “**Consolidated financial statements**” section of our **Annual Report 2022 for more information**
- Refer to the “**Supplemental information**” section of this report for more information about MRTs and SMFs

Variable compensation elements by employee category

Employee category	Cash	Deferred compensation elements		
		LTIP	EOP	DCCP
GEB members	✓	✓		✓
Employees subject to mandatory deferral framework	✓		✓ ¹	✓

¹ Employees in investment areas within Asset Management typically receive notional funds (Fund Ownership Plan, Previously named AM EOP) in lieu of EPO to align their compensation more closely with fund performance, industry standards and regulatory requirements.

Long-Term Incentive Plan

The Long-Term Incentive Plan (the LTIP) granted for 2022 performance is a mandatory deferral plan for GEB members. For the 2022 performance year, we awarded LTIP to 14 GEB members in office during 2022, at a fair value of 71.45% of the maximum. The value was calculated by an independent third party using a well-established valuation methodology.

The performance metrics of the share-based LTIP awards are average return on CET1 capital (RoCET1) and relative total shareholder return (rTSR) over a three-year performance period starting on 1 January in the year of grant. Performance outcomes and actual payout levels will be disclosed at the end of the performance period.

The three-year average RoCET1 performance metric reflects our strategic return ambitions and considers our financial targets, as well as our cost of capital as outlined below:

- the required RoCET1 performance for a maximum payout is set at 18%, which represents the upper end of our target range, without encouraging excessive risk-taking;
- the required performance threshold for the minimum payout is 8%, the mid-point of the payout thresholds appropriately reflects our cost of equity; and
- the linear payout design between threshold and maximum level supports our growth ambitions and our focus on delivering sustainable performance without encouraging excessive risk-taking.

The rTSR performance metric over the three-year period further aligns the interests of employees with those of shareholders:

- the metric compares the total shareholder return (the TSR) of UBS with the TSR of an index consisting of listed Global Systemically Important Banks (G-SIBs) as determined by the Financial Stability Board (excluding UBS Group);
- the G-SIBs are independently defined and reflect companies with a comparable risk profile and impact on the global economy;
- the index, which includes publicly traded G-SIBs, is equally weighted, calculated in Swiss francs and maintained by an independent index provider, so as to ensure independence of the TSR calculation; and
- the payout interval of ± 25 percentage points versus the index performance demonstrates our ambition of delivering attractive relative returns to shareholders. The linear payout and the threshold level set below index performance further support sustainability of results and appropriate risk-taking.

Global Systemically Important Banks (G-SIBs) that are listed companies¹

Agricultural Bank of China	Goldman Sachs	Santander
Bank of America	Groupe Cr�dit Agricole	Soci�t� G�n�rale
Bank of China	HSBC	Standard Chartered
Bank of New York Mellon	ING	State Street
Barclays	ICBC	Sumitomo Mitsui FG
BNP Paribas	JPMorgan Chase	Toronto-Dominion
China Construction Bank	Mitsubishi UFJ FG	UniCredit
Citigroup	Mizuho FG	Wells Fargo
Credit Suisse	Morgan Stanley	
Deutsche Bank	Royal Bank of Canada	

¹ As of November 2022. Excludes UBS Group.

Dividend equivalents (granted where applicable regulation permits) are subject to the same terms as the underlying LTIP award.

LTIP awards reflect the long-term focus of our compensation framework. The final number of shares as determined at the end of the three-year performance period will vest in three equal installments in each of the three years following the performance period for GEB members (i.e., years 3, 4 and 5 after grant), although longer deferral periods may apply for regulated employees).

LTIP payout illustration

– The final number of notional shares vesting will vary based on the achievement versus the performance metrics.

Performance metric: **average RoCET1 (50% of award)**

– Linear payout between threshold and maximum performance.

Below threshold (<8%)

Threshold (8%) up to maximum (<18%)

Maximum and above (≥18%)

– Achievement levels are a percentage of the maximum opportunity of the LTIP and cannot exceed 100%.

Full forfeiture
(payout 0%)

Partial vest
(payout between 33% and <100%)

Full vest
(payout 100%)

– Full forfeiture for performance below the predefined threshold levels.

– UK Senior Management Function holders (SMFs) and UK Material Risk Takers (UK MRTs) are subject to an additional non-financial metric based on a conduct assessment with a potential downward adjustment of up to 100% of the entire award.

Performance metric: **rTSR vs G-SIBs index (50% of award)**

Below threshold (<-25 ppts)

Threshold (-25 ppts) up to maximum (+25 ppts)

Maximum and above (≥+25 ppts)

Full forfeiture
(payout 0%)

Partial vest
(payout between 33% and <100%)

Full vest
(payout 100%)

Performance achievement of the 2019 LTIP granted in 2020

The 2019 LTIP was granted in 2020 (for 2019 performance) at a fair value of 62.25% of a maximum of 100%. The final performance achieved is 98% of a maximum of 100%. This achievement reflects the outcome of the two equally weighted performance metrics, RoCET1 and rTSR, both measured over the three-year performance period from 1 January 2020 to 31 December 2022. The achievement level of this 2019 LTIP award (granted in 2020) applies to 8 current GEB members and 102 other plan participants.

We achieved a three-year average RoCET1 performance of 17.3% against the performance range of 6% to 18%, and an rTSR outperformance of +50.9 percentage points versus the index of listed Global Systemically Important Banks (G-SIBs). No adjustments, pandemic-related or otherwise, were made in the assessment of the performance conditions. For context, at the time when the LTIP was introduced, our communicated ambition for RoCET1 was 12–15%. This ambition level has since been updated and was raised to 15–18%, as communicated in February 2022.

For GEB members, the first of the three equal installments of the 2019 LTIP vested on 1 March 2023 and the second and third installments will vest in March 2024 and 2025; while for selected senior management, the 2019 LTIP cliff vested on 1 March 2023 (later dates may apply for regulated employees). For context, and as outlined in our 2019 Compensation Report, up to CHF 7.3m, or 30%, of the 2019 LTIP awards at grant for GEB members active in March 2017 continues to be at risk and directly linked to the final resolution of the French cross-border matter. In addition, a malus clause allows the Compensation Committee to assess any new information that becomes available in the future in relation to the matter and for the affected GEB members, and to retrospectively reduce any undelivered 2019 LTIP award by up to the full amount if any new information would have

impacted our compensation decision in 2019. This matter continues to be ongoing and, once resolved, the final outcome will be reflected in the final amounts delivered to relevant current and former employees.

Performance achievement for the 2019 LTIP awarded in 2020

Performance metrics	Performance metric outcome		2019 LTIP achievement level	
	Threshold	Maximum	Threshold	Maximum
RoCET1 (Weight: 50%)	6%	18%	33%	100%
	Outcome: 17.3%		Outcome below threshold: full forfeiture	Achievement: 96%
rTSR (Weight: 50%)	-25ppts	+25ppts	33%	100%
	Outcome: 50.9ppts		Achievement: 100%	Outcome above maximum: achievement capped at 100%
Overall 2019 LTIP achievement level			Overall achievement: 98%	

Equity Ownership Plan / Fund Ownership Plan

The Equity Ownership Plan (the EOP) is the deferred compensation plan for employees outside of the GEB that are subject to deferral requirements. For the 2022 performance year, we granted EOP awards to 4,458 employees.

Delivering sustainable results is a key objective for UBS. Our EOP creates a direct link with shareholder returns as a notional equity award and has no upward leverage. This approach promotes growth and sustainable performance. EOP awards generally vest over three years.

In place of EOP, employees in investment areas within Asset Management receive some or all of their EOP in the form of notional funds (the Fund Ownership Plan (the FOP), previously named AM EOP) to align their compensation more closely with industry standards. This plan is generally delivered in cash and vests over three years.

- Refer to “Vesting of outstanding awards granted in prior years subject to performance metrics and thresholds” in the “Supplemental information” section of this report for more information

Deferred Contingent Capital Plan

The Deferred Contingent Capital Plan (the DCCP) is a key component of our compensation framework and supports alignment of the interests of our senior employees with those of our stakeholders.

All employees subject to deferral requirements receive DCCP awards. For the 2022 performance year, we granted DCCP awards to 4,326 employees.

The DCCP is consistent with many of the features of the loss-absorbing bonds that we issue to investors and may be paid at vesting in cash or, at the discretion of the firm, as a perpetual, marketable additional tier 1 (AT1) capital instrument. Employees can elect to have their DCCP awards denominated in Swiss francs or US dollars.

DCCP awards vest in full after five years (longer deferral periods may apply for regulated employees). DCCP awards bear notional interest paid annually (except as limited by regulation for MRTs), subject to review and confirmation by the Compensation Committee. The notional interest rate for grants in 2023 was 4.85% for awards denominated in Swiss francs and 7.80% for awards denominated in US dollars. These interest rates are based on the current market rates for similar AT1 capital instruments issued by UBS Group.

Awards are forfeited if a viability event occurs (i.e., if FINMA notifies the firm that the DCCP awards must be written down to mitigate the risk of an insolvency, bankruptcy or failure of UBS) or if the firm receives a commitment of extraordinary support from the public sector that is necessary to prevent such an event. DCCP awards are also written down for GEB members if the Group’s CET1 capital ratio falls below 10% and for all other employees if it falls below 7%.

In addition, GEB members forfeit 20% of DCCP awards for each loss-making year during the vesting period. This means 100% of the award is subject to risk of forfeiture. The forfeiture features of DCCP create a strong alignment with our debt holders and support the sustainability of the firm.

Over the last five years, USD 2.0bn of DCCP awards have been issued, contributing to the Group’s total loss-absorbing capacity (TLAC). Therefore, DCCP awards not only support competitive pay but also provide a loss absorption buffer that protects the firm’s capital position. The following table illustrates the contribution of the DCCP to our AT1 capital and the effect on our TLAC ratio.

- **Refer to the “Supplemental information” section of this report for more information about performance award and personnel related expenses**
- **Refer to the “Supplemental information” section of this report for more information about longer vesting and clawback periods for MRTs and SMFs**

Contribution of the Deferred Contingent Capital Plan to our loss-absorbing capacity¹		
<i>USD m, except where indicated</i>	31.12.22	31.12.21
Deferred Contingent Capital Plan (DCCP), eligible as high-trigger loss-absorbing additional tier 1 capital	1,794	1,730
DCCP contribution to the total loss-absorbing capacity ratio (%)	0.6	0.6

¹ Refer to “Bondholder information” at ubs.com/investors for more information about the capital instruments of UBS Group AG and UBS AG both on a consolidated and a standalone basis.

Other variable compensation components

To support hiring and retention, particularly at senior levels, we may offer other compensation components, such as:

- retention payments to key employees to induce them to stay, particularly during critical periods for the firm, such as a sale or wind-down of a business;
- on a limited basis, guarantees that may be required to attract individuals with certain skills and experience – these awards are fixed incentives subject to our standard deferral rules and limited to the first full year of employment;
- awards granted to employees hired late in the year to replace performance awards that they would have earned at their previous employer, but have foregone by joining UBS – these awards are generally structured with the same level of deferral as for employees at a similar level at UBS; and
- in exceptional cases, sign-on awards may be offered to candidates to increase the chances of them accepting our offer.

These other variable compensation components are subject to a comprehensive governance process, which may involve the Compensation Committee, depending on the amount or type of such payments.

Employees outside of the GEB that are made redundant may receive severance payments. Our severance terms comply with the applicable local laws (legally obligated severance). In certain locations, we may provide severance packages that are negotiated with our local social partners and may go beyond the applicable minimum legal requirements (standard severance). Such payments are governed by location-specific severance policies. In addition, we may make severance payments that exceed legally obligated or standard severance payments where we believe these are aligned with market practice and appropriate under the circumstances (supplemental severance). GEB members do not receive severance payments.

Replacement awards and forfeitures

In line with industry practice, our compensation framework and plans include provisions generally requiring reduction / forfeiture of a terminated employee’s unvested or deferred awards. In particular, these provisions apply if the terminated employee joins another financial services organization and / or violates restrictive covenants, such as solicitation of clients or employees.

Conversely, to attract external top talent, market practice dictates that we consider replacing their forfeited compensation from their prior employer. In select situations and based on careful consideration, we replace the lost compensation of senior hires. The replacement awards are subject to UBS’s harmful acts provisions. Their value is subject to independent review as part of the “Report of the statutory auditor on the compensation report” to support the like-for-like nature of the replacement and to confirm that these awards do not represent sign-on payments (i.e., there are no “golden hellos”).

Based on a thorough review of available documentation, we aim to mirror the type, conditions and timing of the forfeited compensation, based on actual facts and circumstances. Replacement awards can include cash payments and / or deferred awards, including EOP share awards and DCCP awards. Where payments are made in cash, there is typically a clawback period if the employee leaves UBS voluntarily within 12 months of the start of employment. The replacement awards do not exceed the commercial or fair value of the compensation actually forfeited by the individual and, in case of GEB members, are disclosed transparently. The total 2022 forfeitures of USD 188m of previously awarded deferred compensation offset the 2022 total sign-on payments, replacement payments and guarantees of USD 153m.

In March 2022, Sarah Youngwood joined the GEB and succeeded Kirt Gardner as Group CFO effective 16 May 2022. Before joining UBS,

Ms. Youngwood was CFO for JPMorgan Chase Consumer & Community Banking, CFO for Firmwide Technology and CFO for Diversity & Inclusion. In October 2022, Naureen Hassan joined the GEB and succeeded Tom Naratil in his role as President UBS Americas. She joined UBS from the Federal Reserve Bank of New York, where she was COO and First Vice President.

Consistent with the terms of the compensation forfeited at her previous employer, Sarah Youngwood received replacement awards with a total value of CHF 7,206,683, consisting of an EOP share award representing 291,584 UBS shares (denominated in Swiss francs), and replacement of cash items. The deferred portion of the award will vest in various installments between 2023 and 2026. Similarly, Naureen Hassan received replacement awards with a total value of CHF 65,229, consisting of a deferred cash award (vesting in 2023) and replacement of cash items. These replacement awards reflect the different compensation structures of the industries and organizations we recruit from.

Sign-on payments, replacement payments, guarantees and severance payments

<i>USD m, except where indicated</i>	Total 2022	of which: non-deferred cash	of which: deferred compensation awards	Total 2021	Number of beneficiaries	
					2022	2021
Total sign-on payments¹	0	0	0	0	1	0
<i>of which: Key Risk Takers²</i>	<i>0</i>	<i>0</i>	0	0	<i>0</i>	0
Total replacement payments³	110	28	82	119	452	463
<i>of which: Key Risk Takers²</i>	<i>32</i>	<i>10</i>	22	43	<i>19</i>	13
Total guarantees⁴	43	22	21	17	49	40
<i>of which: Key Risk Takers²</i>	<i>26</i>	<i>12</i>	15	2	<i>9</i>	1
Total severance payments^{1,5}	233	233	0	160	1,745	1,477
<i>of which: Key Risk Takers²</i>	<i>1</i>	<i>1</i>	0	3	<i>8</i>	10

- 1 GEB members are not eligible for sign-on or severance payments. Sign-on awards exclude one-time payments for junior associate hires into the Investment Bank. Including these, the 2022 and 2021 total sign-on payments are USD 1m for each respective year. All one-time payments for junior associate hires are subject to a 12-month clawback condition. Prior period information has been adjusted to exclude awards granted to employees hired late in the year.
- 2 Expenses for Key Risk Takers are full-year amounts for individuals in office on 31 December 2022. Key Risk Takers as defined by UBS, including all employees with a total compensation exceeding USD / CHF 2.5m (Highly Paid Employees).
- 3 Includes replacement payments for two GEB members in 2022 and for one GEB member in 2021. Includes awards granted to employees hired late in the year to replace performance awards that they would have earned at their previous employers, but have foregone by joining UBS. Prior period information has been adjusted to include awards granted to employees hired late in the year.
- 4 No GEB member received a guarantee in 2022 or 2021.
- 5 Includes legally obligated and standard severance payments, as well as payments in lieu of notice.

Forfeitures¹

<i>USD m, except where indicated</i>	Total 2022	Total 2021
Total forfeitures	188	258
<i>of which: former GEB members</i>	<i>3</i>	23
<i>of which: Key Risk Takers²</i>	<i>12</i>	8

- 1 For notional share awards, forfeitures are calculated as units forfeited during the year, valued at the share price on 31 December 2022 (USD 18.67) for 2022. The 2021 data is valued using the share price on 31 December 2021 (USD 17.87). For LTIP the forfeited units reflect the fair value awarded at grant. For the notional funds awarded to Asset Management employees under the EOP, this represents the forfeiture credits recognized in 2022 and 2021. For the DCCP, the fair value at grant of the forfeited awards during the year is reflected. Numbers presented may differ from the effect on the income statement in accordance with IFRS.
- 2 Key Risk Takers as defined by UBS, including all employees with a total compensation exceeding USD / CHF 2.5m (Highly Paid Employees) and excluding former GEB members who forfeited awards in 2022 or 2021.

Employee share ownership

According to available records on employee shareholdings, including unvested deferred compensation, as of 31 December 2022, employees held at least USD 4.6bn of UBS shares (of which approximately USD 2.9bn were unvested), representing approximately 7% of our total shares issued.

The Equity Plus Plan is our employee share purchase program. It allows employees at Executive Director level and below to voluntarily invest up to 30% of their base salary and / or regular commission payments to purchase UBS shares. In addition (where offered), eligible employees can invest up to 35% of their performance award under the program. Participation in the program is capped at USD / CHF 20,000 annually. Eligible employees may purchase UBS shares at market price and receive one additional share for every three shares purchased through the program. Additional shares vest after a maximum of three years, provided the employee remains employed by UBS and has retained the purchased shares throughout the holding period.

- Refer to “Note 27 Employee benefits: variable compensation” in the “Consolidated financial statements” section of our Annual Report 2022 for more information

Compensation for US financial advisors in Global Wealth Management

In line with market practice for US wealth management businesses, the compensation for US financial advisors in Global Wealth Management consists of cash compensation and deferred compensation awards, determined using a formulaic approach based on production.

The monthly cash compensation is determined using an overall percentage rate for each financial advisor. It reflects a percentage of the compensable production that each financial advisor generates during that month. Compensable production is generally based on transaction revenue and investment advisory fees and may reflect further adjustments. The percentage rate generally varies based on the level of the production and firm tenure, supporting growth and alignment with the investment strategy and goals of our clients.

Financial advisors may also be granted annual deferred compensation. These amounts generally vest over a six-year period. The annual deferred compensation amount reflects their overall percentage rate and production, as previously outlined.

Cash compensation and deferred compensation awards may be reduced for, among other things, errors, negligence or carelessness, or failure to comply with the firm's rules, standards, practices and / or policies, and / or applicable laws and regulations.

Financial advisors may also participate in additional programs to support promoting and developing their business or supporting the transition of client relationships where appropriate.

2022 Group performance outcomes

Performance awards granted for the 2022 performance year

The "Variable compensation" table below shows the amount of variable compensation awarded to employees for the 2022 performance year, together with the number of beneficiaries for each type of award granted. In the case of deferred awards, the final amount paid to an employee depends on performance conditions and consideration of relevant forfeiture provisions. The deferred share award amount is based on the market value of these awards on the date of grant.

Variable compensation

<i>USD m, except where indicated</i>	Expenses recognized in the IFRS income statement		Expenses deferred to future periods ³		Accounting adjustments ^{3,4}		Total		Number of beneficiaries ⁶	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Non-deferred cash	2,276	2,383	0	0	(18)	0	2,259	2,383	59,570	57,783
Deferred compensation awards	364	405	605	797	58	65	1,026	1,267	4,349	4,202
<i>of which: Equity Ownership Plan</i>	202	183	310	393	55	46	568	623	4,042	3,807
<i>of which: Deferred Contingent Capital Plan</i>	129	140	245	299	0	0	375	438	4,206	4,170
<i>of which: Long-Term Incentive Plan</i>	11	54	30	50	3	18	43	122	14	117
<i>of which: Fund Ownership Plan</i>	21	29	20	56	0	0	41	84	295	374
Variable compensation – performance award pool	2,640	2,788	605	797	40	65	3,285	3,650	59,590	57,793
Variable compensation – financial advisors¹	3,799	4,175	1,290	1,097	0	0	5,089	5,272	6,245	6,218
Variable compensation – other²	169	191	237	215	(146)⁵	(121)⁵	260	285		
Total variable compensation	6,608	7,155	2,131	2,109	(106)	(56)	8,634	9,207		

- 1 Financial advisor compensation consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.
- 2 Consists of replacement payments, forfeiture credits, severance payments, retention plan payments and interest expense related to the Deferred Contingent Capital Plan.
- 3 Estimates as of 31 December 2022 and 2021. Actual amounts to be expensed in future periods may vary; e.g., due to forfeiture of awards.
- 4 Represents estimated post-vesting transfer restriction and permanent forfeiture discounts, as well as currency translation adjustments.
- 5 Included in expenses deferred to future periods is an amount of USD 146m (2021: USD 121m) in interest expense related to the Deferred Contingent Capital Plan. As the amount recognized as performance award represents the present value of the award at the date it is granted to the employee, this amount is excluded.
- 6 Excludes awards that are part of other variable compensation.

2022 performance award pool and expenses

The performance award pool, which includes performance-based variable awards for 2022, was USD 3.3bn, reflecting a decrease of 10% compared with 2021. Performance award expenses for 2022 remained at USD 3.2bn, reflecting decreased performance award expenses accrued in the performance year, offset by increased performance award expenses related to prior performance years. The "Performance award pool and expenses" table below compares the performance award pool with performance award expenses.

Performance award pool and expenses

<i>USD m, except where indicated</i>	2022	2021	% change
Performance award pool ¹	3,285	3,650	(10)
<i>of which: expenses deferred to future periods and accounting adjustments^{2,3}</i>	645	862	(25)
Performance award expenses accrued in the performance year	2,640	2,788	(5)
Performance award expenses related to prior performance years	566	402	41
Total performance award expenses recognized for the year⁴	3,205	3,190	0

- 1 Excluding employer-paid taxes and social security.
- 2 Estimate as of the end of the performance year. Actual amounts expensed in future periods may vary, e.g., due to forfeiture of awards.

- 3 Accounting adjustments represent estimated post-vesting transfer restriction and permanent forfeiture discounts, as well as currency translation adjustments.
- 4 Refer to “Note 27 Employee benefits: variable compensation” in the “Consolidated financial statements” section of our Annual Report 2022 for more information.

Compensation for the Board of Directors

Chairman of the BoD

Colm Kelleher was elected Chairman of the BoD at the 2022 AGM on 6 April 2022. Under his leadership, the BoD determines, among other things, the strategy for the Group, based on recommendations by the Group CEO, exercises ultimate supervision over management and appoints all GEB members.

The Chairman leads all general meetings and BoD meetings and works with the committee Chairpersons to coordinate the work of all BoD committees. Together with the Group CEO, the Chairman is responsible for effective communication with shareholders and stakeholders, including clients, government officials, regulators and public organizations. The Chairman works closely with the Group CEO and other GEB members, providing advice and support when appropriate, and continues to strengthen and promote our culture through the three keys to success: our Pillars, Principles and Behaviors.

As an independent director, the Chairman's total compensation for the period from AGM to AGM consists of a fixed fee without any variable component, which is delivered 50% in cash and 50% in shares (blocked for four years). For the current period, from the 2022 AGM to the 2023 AGM, his fixed fee was CHF 4.7m and consisted of a cash payment of CHF 2.35m and a share component of CHF 2.35m, consisting of 116,961 UBS shares at CHF 20.092 per share. The share component aligns the Chairman's pay with the Group's long-term performance. The Chairman does not receive performance awards, severance payments or pension contributions in addition to his fixed fee, but, given the full-time nature of his role, he is eligible for employee conditions on UBS products and services.

- **Refer to “Board of Directors” in the “Corporate governance” section of our Annual Report 2022 for more information about the responsibilities of the Chairman**

Vice Chairman of the BoD

Lukas Gähwiler was elected as a member of the BoD at the 2022 AGM on 6 April 2022 and thereafter appointed as Vice Chairman. In this newly defined full-time role, he leads the BoD in the absence of the Chairman. Together with the Senior Independent Director, he also supports the Chairman in all aspects of corporate governance and oversight across the Group. In particular, he represents UBS across a broad range of associations and industry bodies in Switzerland.

The Vice Chairman's total compensation for the period from AGM to AGM consists of a fixed fee without any variable component, which is delivered 50% in cash and 50% in shares (blocked for four years). For the current period, from the 2022 AGM to the 2023 AGM, his fixed fee was CHF 1.5m, excluding benefits and pension fund contributions. The fixed fee consisted of a cash payment of CHF 0.75m and a share component of CHF 0.75m, consisting of 37,328 UBS shares at CHF 20.092 per share. The fee for the new full-time Vice Chairman was absorbed within the existing budget and does not result in an increase of the proposed maximum aggregate amount for BoD compensation.

As a non-independent director, Mr. Gähwiler is entitled to pension fund contributions. Including these, his total reward for his service as Vice Chairman for the current period was CHF 1,879,010.

The Vice Chairman is not eligible for performance awards, severance terms or supplementary contributions to pension plans. The pension contributions and benefits for the Vice Chairman, in his capacity as non-independent director, are consistent with all UBS employees and aligned with local market practice.

- **Refer to “Board of Directors” in the “Corporate governance” section of our Annual Report 2022 for more information about the responsibilities of the Vice Chairman**

Other BoD members

BoD members, except the Chairman and Vice Chairman, receive fixed fees for their services on the BoD and its committees. BoD members do not receive performance awards, severance payments, benefits or pension contributions (the benefit eligibility of the Chairman and that of the Vice Chairman are described above).

BoD members must use a minimum of 50% of their fees to purchase UBS shares, which are blocked for four years, and they may elect to use up to 100% of their fees to purchase blocked UBS shares. As outlined above, the fixed fees of the Chairman and Vice Chairman are delivered 50% in cash and 50% in shares, which are blocked for four years. The number of shares is calculated based on the average closing price of the 10 trading days leading up to and including the grant date.

At each AGM, shareholders are invited to approve the aggregate amount of BoD remuneration, including the compensation for the Chairman and Vice Chairman, which applies until the next AGM. The chart and the tables below provide details on the fee structure for the BoD members.

Remuneration framework for BoD members

CHF	2022 AGM to 2023 AGM		Pay mix	Delivery
Annual fixed fees¹				
Chairman	4,700,000		Blocked shares	50%
Vice Chairman	1,500,000			
Fees for other BoD members²				
Fixed base fee	300,000		Cash	50%
Senior Independent Director	150,000			
	Chair	Member		
Audit Committee	300,000	200,000		
Compensation Committee	200,000	100,000		
Governance and Nominating Committee		100,000		
Corporate Culture and Responsibility Committee		50,000		
Risk Committee	350,000	200,000		

1 The Chairman and the Vice Chairman do not receive committee or other fees in addition to their annual fixed fee. Their fixed fee is delivered 50% in cash and 50% in shares (blocked for four years). See above for the benefit eligibility of the Chairman and Vice Chairman.

2 At least 50% of the total amounts must be used to purchase UBS shares, which are blocked for four years, but other BoD members can elect to use 100% of their remuneration to purchase blocked UBS shares.

Approval governance for BoD compensation

The Chairperson of the Compensation Committee proposes and the Compensation Committee approves the compensation of the Chairman and that of the Vice Chairman annually for the upcoming AGM-to-AGM period, taking into consideration fee or compensation levels for comparable roles based on our core financial industry peers and other relevant leading Swiss companies included in the Swiss Market Index.

The fee structure for the other BoD members is reviewed annually based on the Chairman's proposal to the Compensation Committee, which in turn submits a proposal to the BoD for approval. In our regular review of the BoD fee structure, we concluded that our overall approach for BoD member compensation remains appropriate and thus unchanged.

- Refer to "Compensation Governance" in the "Compensation philosophy and governance" section of this report for more information about the remuneration responsibilities of the BoD and Compensation Committee

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Remuneration details and additional information for BoD members

Period 2022 AGM to 2023 AGM

CHF, except where indicated

Name, function ¹	Audit Committee	Compensation Committee	Corporate Culture and Responsibility Committee	Governance and Nominating Committee	Risk Committee	Base fee	Committee fee(s)	Additional payments ²	Benefits ³	Total ⁴	Share percentage ⁵	Number of shares ^{6,7}
Colm Kelleher, Chairman ⁸			C	C		4,700,000			86,494	4,786,494	50	116,961
Lukas Gähwiler, Vice Chairman ⁸						1,500,000			379,010	1,879,010	50	37,328
Jeremy Anderson, Senior Independent Director	C			M		300,000	400,000	150,000		850,000	50	21,152
Claudia Böckstiegel, member			M			300,000	50,000			350,000	50	8,709
William C. Dudley, member			M		M	300,000	250,000			550,000	50	13,687
Patrick Firmenich, member	M		M			300,000	250,000			550,000	100	26,130
Fred Hu, member				M		300,000	100,000			400,000	100	14,722
Mark Hughes, member			M		C	300,000	400,000			700,000	50	17,419
Nathalie Rachou, member				M	M	300,000	300,000			600,000	50	14,931
Julie G. Richardson, member		C			M	300,000	400,000			700,000	50	17,419
Dieter Wemmer, member	M	M				300,000	300,000			600,000	50	14,931
Jeanette Wong, member	M	M				300,000	300,000			600,000	100	22,127
Aggregate of all BoD members 2022/2023										<u>12,565,504</u>		
Aggregate of all BoD members 2022/2023 in USD (for reference) ⁹										<u>13,035,831</u>		

Period 2021 AGM to 2022 AGM

CHF, except where indicated

Name, function ¹	Audit Committee	Compensation Committee	Corporate Culture and Responsibility Committee	Governance and Nominating Committee	Risk Committee	Base fee	Committee fee(s)	Additional payments ¹⁰	Benefits	Total ⁴	Share percentage ⁵	Number of shares ^{6,7}
Axel A. Weber, Chairman ¹¹			C	C		4,900,000			324,913	5,224,913	29	72,939

Jeremy Anderson, Vice Chairman and Senior Independent Director	C			M	300,000	400,000	150,000	850,000	50	22,142			
Claudia Böckstiegel, member					300,000	0		300,000	50	7,814			
William C. Dudley, member			M	M	M	300,000	350,000	650,000	50	16,932			
Patrick Firmenich, member						300,000	250,000	550,000	100	27,275			
Reto Francioni, member		M			M	300,000	300,000	600,000	50	15,629			
Fred Hu, member				M	M	300,000	300,000	600,000	100	23,062			
Mark Hughes, member			M			C	300,000	400,000	700,000	50	18,234		
Nathalie Rachou, member						M	300,000	200,000	500,000	50	13,024		
Julie G. Richardson, member						C	M	M	300,000	500,000	800,000	50	20,839
Dieter Wemmer, member		M	M				M	300,000	400,000	700,000	50	18,234	
Jeanette Wong, member		M	M	M				300,000	350,000	650,000	100	24,988	
Aggregate of all BoD members 2021/2022								12,124,913					

Legend: C = Chairperson of the respective Committee, M = Member of the respective Committee

- 1 Twelve BoD members were in office on 31 December 2022. At the 2022 AGM, Colm Kelleher and Lukas Gähwiler were newly elected and Reto Francioni and Axel A. Weber did not stand for re-election. Twelve BoD members were in office on 31 December 2021.
- 2 These payments are associated with the Senior Independent Director role.
- 3 For the period from the 2022 AGM to the 2023 AGM, benefits amount is an estimate. For the Vice Chairman, the benefits include the portion related to UBS's contribution to the statutory pension scheme.
- 4 Excludes UBS's portion related to the legally required social security contributions, which for the period from the 2022 AGM to the 2023 AGM (including the Chairman and Vice Chairman) is estimated at grant at CHF 731,329 and which for the period from the 2021 AGM to the 2022 AGM was estimated at grant at CHF 719,763. The legally required social security contributions paid by the independent BoD members are included in the amounts shown in this table, as appropriate.
- 5 Except for the former Chairman (see footnote 11), fees are paid 50% in cash and 50% in blocked UBS shares.
- 6 For 2022, UBS shares were valued at CHF 20.092 (average closing price of UBS shares over the last 10 trading days leading up to and including the grant date). For 2021, UBS shares were valued at CHF 19.194 (average closing price of UBS shares over the last 10 trading days leading up to and including the grant date). These shares are blocked for four years.
- 7 Number of shares is reduced in case of the 100% election to deduct legally required contributions. All remuneration payments are, where applicable, subject to social security contributions and / or withholding tax.
- 8 The Chairman and the Vice Chairman do not receive committee fees in addition to their annual fixed fee.
- 9 Swiss franc amounts have been translated into US dollars for reference at the 2022 performance award currency exchange rate of CHF / USD 1.03743.
- 10 This payment is associated with the Senior Independent Director function and the Vice Chairman role.
- 11 In his function as non-independent BoD member for the AGM period 2021/2022, the former Chairman received a base salary of CHF 3,500,000 and an annual share award of CHF 1,400,000. This remuneration is included above in the Base fee column.



Supplemental information

Fixed and variable compensation for GEB members

Fixed and variable compensation for GEB members^{1,2,3}

<i>CHF m, except where indicated</i>	Total for 2022		Not deferred		Deferred⁴		Total for 2021
	Amount	%	Amount	%	Amount	%	Amount
Total compensation							
Amount ⁵	104	100	39	38	65	63	105
Number of beneficiaries	15				0		15
Fixed compensation^{5,6}	23	22	23	100	0	0	25
Cash-based	21	20	21		0		22
Equity-based	2	2	2		0		3
Variable compensation	81	78	16	20	65	80	80
Cash ⁷	16	15	16		0		16
Long-Term Incentive Plan (LTIP) ⁸	41	39	0		41		40
Deferred Contingent Capital Plan (DCCP) ⁸	24	23	0		24		24

- 1 The figures include all GEB members in office during the respective years.
- 2 Includes compensation paid under the employment contract during the notice period for GEB members who stepped down during the respective years.
- 3 Includes compensation for newly appointed GEB members for their time in office as a GEB member during the respective years.
- 4 Based on the specific plan vesting and reflecting the total award value at grant, which may differ from the expense recognized in the income statement in accordance with IFRS.
- 5 Excludes benefits and employer's contributions to retirement benefit plans. Includes social security contributions paid by GEB members but excludes the portion related to the legally required social security contributions paid by UBS. For 2022, Sarah Youngwood received a one-time replacement award of CHF 7m and Naureen Hassan received a one-time replacement award of CHF 0.07m. The replacement awards are not included in the above table; including these, the 2022 total aggregate compensation of all GEB members is CHF 112m. For 2021, Barbara Levi received a one-time replacement award of CHF 7m. This replacement award is not included in the above table; including this, the 2021 total aggregate compensation of all GEB members is CHF 112m.
- 6 Includes base salary and role-based allowances, rounded to the nearest million.
- 7 Includes allocation of vested but blocked shares, in line with the remuneration section of the UK Prudential Regulation Authority Rulebook.
- 8 For the GEB members who are also MRTs or SMFs, the awards do not include dividend and interest payments. Accordingly, the amounts reflect for the LTIP the fair value of the non-dividend-bearing awards and for the DCCP the fair value of the granted non-interest-bearing awards.

Regulated staff

Key Risk Takers

Key Risk Takers (KRTs) are defined as those employees that, by the nature of their roles, have been determined to materially set, commit or control significant amounts of the firm's resources and / or exert significant influence over its risk profile. This includes employees working in front-office roles, logistics and control functions. Identifying KRTs globally is part of our risk control framework and an important element in ensuring we incentivize only appropriate risk-taking. For 2022, in addition to GEB members, 699 employees were classified as KRTs throughout UBS Group globally, including all employees with a total compensation exceeding USD / CHF 2.5m (Highly Paid Employees), who may not have been identified as KRTs during the performance year.

In line with regulatory requirements, the performance of employees identified as KRTs during the performance year is evaluated by the control functions. In addition, KRTs' performance awards are subject to a mandatory deferral rate of at least 50%, regardless of whether the deferral threshold has been met (excluding KRTs with de minimis performance awards below a predetermined threshold where standard deferral rates apply). A KRT's deferred compensation award will only vest if the Group performance conditions are met. Consistent with all other employees, the deferred portion of a KRT's compensation is also subject to forfeiture or reduction if the KRT commits harmful acts.

Fixed and variable compensation for Key Risk Takers¹

<i>USD m, except where indicated</i>	Total for 2022		Not deferred		Deferred ²		Total for 2021
	Amount	%	Amount	%	Amount	%	Amount
Total compensation							
Amount	1,292	100	790	61	502	39	1,561
Number of beneficiaries	699						699
Fixed compensation^{3,4}	438	34	438	100	0	0	477
Cash-based	435	34	435				474
Equity-based	3	0	3				3
Variable compensation	855	66	353	41	502	59	1,084
Cash ⁵	353	27	353				418
Long-Term Incentive Plan (LTIP) / Equity Ownership Plan (EOP) / Fund Ownership Plan (FOP) ⁶	306	24			306		423
Deferred Contingent Capital Plan (DCCP) ⁶	196	15			196		243

- Includes employees with a total compensation exceeding USD / CHF 2.5m (Highly Paid Employees), excludes payments made to individuals related to their time as GEB member.
- Based on the specific plan vesting and reflecting the total value at grant, which may differ from the expense recognized in the income statement in accordance with IFRS.
- Excludes benefits and employer's contributions to retirement benefits plan. Includes social security contributions paid by KRTs but excludes the legally required social security contributions paid by UBS.
- Includes base salary and role-based allowances.
- Includes allocation of vested but blocked shares, in line with regulatory requirements where applicable.
- KRTs who are also MRTs do not receive dividend and interest payments. Accordingly, the amounts for the EOP / LTIP reflect the fair value of the non-dividend-bearing awards and for the DCCP the fair value of the granted non-interest-bearing awards.

Deferred compensation of the GEB and KRTs

The table below shows the current economic value of unvested outstanding deferred variable compensation awards subject to ex post adjustments. For share-based plans, the economic value is determined based on the closing share price on 31 December 2022. For notional funds, it is determined using the latest available market price for the underlying funds at year-end 2022, and for deferred cash plans, it is determined based on the outstanding amount of cash owed to award recipients.

Deferred compensation of the GEB and KRTs^{1,2,3}

<i>USD m, except where indicated</i>	Relating to awards for 2022 ⁴	Relating to awards for prior years ⁵	Total	<i>of which: exposed to ex-post explicit and / or implicit adjustments</i>	Total deferred compensation year-end 2021	Total amount of deferred compensation paid out in 2022 ⁶
	GEB					
Deferred Contingent Capital Plan	25	86	111	100%	98	21
Equity Ownership Plan (including notional funds)		45	45	100%	78	27
Long-Term Incentive Plan	42	118	160	100%	119	
KRTs						
Deferred Contingent Capital Plan	196	907	1,104	100%	1,183	159
Equity Ownership Plan (including notional funds)	306	905	1,210	100%	1,414	355
Long-Term Incentive Plan		184	184	100%	235	
Total GEB and KRTs	569	2,245	2,814		3,127	562

- Based on the specific plan vesting and reflecting the economic value of the outstanding awards, which may differ from the expense recognized in the income statement in accordance with IFRS. Year-to-year reconciliations would also need to consider the impacts of additional items including off-cycle awards, FX movements, population changes, and dividend equivalent reinvestments.
- Refer to "Note 27 Employee benefits: variable compensation" in the "Consolidated financial statements" section of the Annual Report 2022 for more information.
- GEB members and KRTs who are also MRTs do not receive dividend and interest payments. Accordingly, the amounts for the EOP / LTIP reflect the fair value of the non-dividend-bearing awards and for the DCCP the fair value of the granted non-interest-bearing awards.
- Where applicable, amounts are translated into US dollars at the performance award currency exchange rate. LTIP values reflect the fair value awarded at grant.

- 5 Takes into account the ex post implicit adjustments, given the share price movements since grant. Where applicable, amounts are translated from award currency into US dollars using FX rates as of 31 December 2022. LTIP values reflect the fair value awarded at grant.
- 6 Valued at distribution price and FX rate for all awards distributed in 2022.

The table below shows the value of actual ex post explicit and implicit adjustments to outstanding deferred compensation in the 2022 financial year for GEB members and KRTs.

Ex post adjustments occur after an award has been granted. Explicit adjustments occur when we adjust compensation by forfeiting deferred awards. Implicit adjustments are unrelated to any action taken by the firm and occur as a result of price movements that affect the value of an award.

The total value of ex post explicit adjustments made to UBS share awards in 2022, based on the approximately 5.8m shares forfeited during 2022, is a reduction of USD 110m.

GEB and KRTs ex post explicit and implicit adjustments to deferred compensation

<i>USD m</i>	Ex post explicit adjustments to unvested awards ¹		Ex post implicit adjustments to unvested awards ²	
	31.12.22	31.12.21	31.12.22	31.12.21
GEB				
Deferred Contingent Capital Plan	0	0	0	0
Equity Ownership Plan (including notional funds, if applicable)	0	0	9	17
Long-Term Incentive Plan	0	0	25	21
KRTs				
Deferred Contingent Capital Plan	(8)	(14)	0	0
Equity Ownership Plan (including notional funds)	(4)	(16)	129	250
Long-Term Incentive Plan		(1)	38	47
Total GEB and KRTs	(12)	(31)	201	335

- For notional share awards, ex post explicit adjustments are calculated as units forfeited during the year, valued at the share price on 31 December 2022 (USD 18.67) for 2022 (which may differ from the expense recognized in the income statement in accordance with IFRS). The 2021 data is valued using the share price on 31 December 2021 (USD 17.87). For LTIP, the forfeited units reflect the fair value awarded at grant. For the notional funds awarded to employees in investment areas within Asset Management under the FOP, this represents the forfeiture credits recognized in 2022 and 2021. For the DCCP, the fair value at grant of the forfeited awards during the year is reflected.
- Ex post implicit adjustments for UBS shares are calculated based on the difference between the weighted average grant date fair value and the share price at year-end. The amount for notional funds is calculated using the mark-to-market change during 2022 and 2021. For the GEB member who was appointed to the GEB during 2022, awards have been fully reflected in the GEB entries.

Material Risk Takers

For relevant EU- or UK-regulated entities, we identify individuals who are deemed to be Material Risk Takers (MRTs) based on local regulatory requirements, including the respective EU Commission Delegated Regulation, the fifth iteration of the EU Capital Requirements Directive (CRD V) and equivalent UK requirements, as applicable. This group consists of senior management, risk takers, selected staff in control or support functions and certain highly compensated employees. For 2022, UBS identified 616 MRTs in relation to its relevant EU or UK entities.

Variable compensation awarded to MRTs is subject to additional deferral and other requirements. These include a maximum variable to fixed compensation ratio of 200% based on approval through relevant shareholder votes, a minimum deferral rate of 40% or 60% (depending on role / variable compensation level) on performance awards and delivery of at least 50% of any upfront performance award in UBS shares that are vested but blocked for 12 months after grant.

Deferred awards granted to MRTs under UBS's deferred compensation plans for their performance in 2022 are subject to 6- or 12-month blocking periods post vesting and do not pay out dividends or interest during the deferral period.

For up to seven years after grant, performance awards granted to MRTs are subject to clawback provisions, which allow the firm to claim repayment of both the upfront and the vested deferred element of any performance award if an individual is found to have contributed substantially to significant financial losses for the Group or corporate structure in scope, a material downward restatement of disclosed results, or engaged in misconduct and / or failed to take expected actions that contributed to significant reputational harm.

LTIP awards granted to UK MRTs and SMFs are subject to an additional non-financial conduct-related metric as required by UK regulation.

UK Senior Managers and Certification Regime

The Senior Managers and Certification Regime (the SMCR) of the UK Prudential Regulation Authority and Financial Conduct Authority requires that individuals with specified responsibilities, performing certain significant functions and / or those in certain other identified categories be designated as SMFs.

Subject to de minimis and other compensation-related considerations, variable compensation awards made to SMFs must comply with specific requirements, including longer deferral, blocking and clawback periods. The deferral period for SMFs is seven years, with the deferred performance

awards vesting no faster than pro rata from years 3 to 7, except those that have total compensation below GBP 500,000 and variable incentive accounting for less than 33% of total compensation, for whom a five-year deferral period (instead of a seven-year period) applies. Such awards are also subject to a 12-month blocking period post vesting. The clawback policy for SMFs permits clawback for up to 10 years from the date of performance award grants (applicable if an individual is subject to an investigation at the end of the initial seven-year clawback period). All SMFs are also MRTs and, as such, subject to the same prohibitions on dividend and interest payments.

Control functions and Group Internal Audit

Our control functions must be independent in order to monitor risk effectively. Therefore, their compensation is determined separately from the revenue areas that they oversee, supervise or monitor. Their performance award pool is based not on the performance of these businesses, but on the performance of the Group as a whole. We also consider other factors, such as how effectively the function has performed and our market position. Decisions on individual compensation for the senior managers of the control functions are made by the function heads and approved by the Group CEO. Decisions on individual compensation for the members of Group Internal Audit (GIA) are made by the Head GIA and approved by the Chairman. Following a proposal by the Chairman, total compensation for the Head GIA is approved by the Compensation Committee.

2022 Group personnel expenses

The number of personnel employed as of 31 December 2022 increased by 1,212 to 72,597 (full-time equivalents) compared with 31 December 2021.

The table below shows our total personnel expenses for 2022, including salaries, pension expenses, social security contributions, variable compensation and other personnel costs. Variable compensation includes cash performance awards paid in 2023 for the 2022 performance year, amortization of unvested deferred awards granted in previous years and the cost of deferred awards granted to employees that are eligible for retirement in the context of the compensation framework at the date of grant.

The performance award pool reflects the value of performance awards granted relating to the 2022 performance year, including awards that are paid out immediately and those that are deferred. To determine our variable compensation expenses, the following adjustments are required in order to reconcile the performance award pool to the expenses recognized in the Group's financial statements prepared in accordance with IFRS:

- a reduction for expenses deferred to future periods (amortization of unvested awards granted in 2023 for the 2022 performance year) and accounting adjustments; and
- an addition for the 2022 amortization of unvested deferred awards granted in prior years.

As a large part of compensation consists of deferred awards, the amortization of unvested deferred awards granted in prior years forms a significant part of the IFRS expenses in both 2022 and 2023.

- **Refer to “Note 6 Personnel expenses” and “Note 27 Employee benefits: variable compensation” in the “Consolidated financial statements” section of our Annual Report 2022 for more information**

Personnel expenses

	Expenses recognized in the IFRS income statement				
	Related to the performance year 2022	Related to prior performance years	Total expenses recognized in 2022	Total expenses recognized in 2021	Total expenses recognized in 2020
<i>USD m</i>					
Salaries¹	7,045	0	7,045	7,339	7,023
Non-deferred cash	2,276	(16)	2,260	2,373	2,141
Deferred compensation awards	364	581	945	817	1,068
<i>of which: Equity Ownership Plan</i>	202	235	437	363	463
<i>of which: Deferred Contingent Capital Plan</i>	129	219	349	297	463
<i>of which: Long-Term Incentive Plan</i>	11	32	43	73	54
<i>of which: Fund Ownership Plan</i>	21	95	116	84	88
Variable compensation – performance awards	2,640	566	3,205	3,190	3,209
Variable compensation – financial advisors²	3,799	709	4,508	4,860	4,091
Variable compensation – other³	169	71	241	229	220
Total variable compensation⁴	6,608	1,346	7,954	8,280	7,520
Contractors	323	0	323	381	375
Social security	903	40	944	978	899
Pension and other post-employment benefit plans⁵	794	0	794	833	845
Other personnel expenses	598	23	621	576	561
Total personnel expenses	16,271	1,410	17,680	18,387	17,224

1 Includes role-based allowances.

2 Financial advisor compensation consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.

3 Consists of replacement payments, forfeiture credits, severance payments, retention plan payments and interest expense related to the Deferred Contingent Capital Plan.

4 Refer to “Note 27 Employee benefits: variable compensation” in the “Consolidated financial statements” section of our Annual Report 2022 for more information.

5 Refer to “Note 26 Post-employment benefit plans” in the “Consolidated financial statements” section of our Annual Report 2022 for more information.

Deferred compensation

Vesting of outstanding awards granted in prior years subject to performance metrics and thresholds

The tables below show the extent to which the performance metrics and thresholds for awards granted in prior years have been met and the related vesting in 2023.

Long-Term Incentive Plan (LTIP) 2019 (performance period 2020–2022)

Performance metrics	Performance achievement ¹	Vesting
Return on common equity tier 1 capital (RoCET1) and relative Total Shareholder Return (rTSR)	The overall achievement level is 98% of the maximum opportunity (of up to 100%), based on outcomes for rTSR (weighted 50%) and RoCET1 (weighted 50%).	<ul style="list-style-type: none"> For GEB, the first installment will vest in 2023 and the remaining tranches will vest in 2024 and 2025 accordingly. For context, and as outlined in our 2019 Compensation Report, up to CHF 7.3m, or 30%, of the 2019 LTIP awards at grant for GEB members active in March 2017 continues to be at risk and directly linked to the final resolution of the French cross-border matter. For other select senior management, the full award will vest in 2023.

1 As disclosed in our Compensation Report 2019, LTIP awards for the 2019 performance year were awarded at a value of 62.25% of maximum, which reflected our best estimate of the fair value of the award. The maximum number of shares was determined by dividing the awarded amount by the fair value of the award at the date of grant, divided by CHF 12.919 or USD 13.141, the average closing price of UBS shares over the last ten trading days leading up to and including the grant date.

- Refer to “Performance achievement of the 2019 LTIP granted in 2020” in the “Group compensation” section of this report for more information

The below EOP and DCCP thresholds have been set to support the sustainability of the organization and represent minimum performance levels to retain the awards.

Equity Ownership Plan (EOP) 2017 / 2018, EOP 2018 / 2019, EOP 2019 / 2020 and EOP 2020 / 2021

Thresholds	Threshold achievement ¹	Vesting
Return on common equity tier 1 capital (RoCET1) and divisional return on attributed equity	The Group and divisional thresholds have been satisfied.	<p>The following installments vest in full:</p> <ul style="list-style-type: none"> for EOP 2017 / 2018, the third and final installment for GEB members; for EOP 2018 / 2019, the second installment for the GEB members; for EOP 2019 / 2020, the second installment for all other employees covered under the plan; and for EOP 2020 / 2021, the first installment for all other employees covered under the plan.

Deferred Contingent Capital Plan (DCCP) 2017 / 2018

Thresholds	Threshold achievement ¹	Vesting
Common equity tier 1 (CET1) capital ratio, viability event and, additionally for GEB, Group profit before tax	The thresholds have been satisfied.	<ul style="list-style-type: none"> DCCP 2017 / 2018 vests in full.

1 Performance may be adjusted for disclosed items generally not representative of underlying business performance.

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Share ownership / entitlements of GEB members¹

Name, function	on 31 December	Number of unvested shares / at risk ²	Number of vested shares	Total number of shares	Potentially conferred voting rights in %
Ralph A.J.G. Hamers, Group Chief Executive Officer	2022	349,441	5,238	354,679	0.023
	2021	122,453	2,673	125,126	0.008
Christian Bluhm, Group Chief Risk Officer	2022	707,979	0	707,979	0.046
	2021	654,579	226	654,805	0.041
Mike Dargan, Group Chief Digital and Information Officer	2022	386,141	17,955	404,096	0.026
	2021	240,343	82,743	323,086	0.020
Kirt Gardner, former Group Chief Financial Officer	2022	—	—	—	—
	2021	780,640	236,421	1,017,061	0.063
Suni Harford, President Asset Management	2022	1,028,210	44,202	1,072,412	0.070
	2021	636,122	22,199	658,321	0.041
Naureen Hassan, President UBS Americas	2022	0	0	0	0.000
	2021	—	—	—	—
Robert Karofsky, President Investment Bank	2022	1,037,028	364,914	1,401,942	0.092
	2021	851,520	357,064	1,208,584	0.075
Sabine Keller-Busse, President Personal & Corporate Banking and President UBS Switzerland	2022	973,150	566,106	1,539,256	0.101
	2021	798,457	421,491	1,219,948	0.076
Iqbal Khan, President Global Wealth Management and President EMEA	2022	960,301	0	960,301	0.063
	2021	898,111	113,715	1,011,826	0.063
Edmund Koh, President Asia Pacific	2022	724,865	579,937	1,304,802	0.085
	2021	501,322	493,977	995,299	0.062
Barbara Levi, Group General Counsel	2022	407,195	45,818	453,013	0.030
	2021	430,732	0	430,732	0.027
Tom Naratil, former Co-President Global Wealth Management and President UBS Americas	2022	—	—	—	—
	2021	1,374,044	950,682	2,324,726	0.145
Markus Ronner, Group Chief Compliance and Governance Officer	2022	586,283	0	586,283	0.038
	2021	418,452	57,856	476,308	0.030
Sarah Youngwood, Group Chief Financial Officer	2022	299,729	0	299,729	0.020
	2021	—	—	—	—
Total	2022	7,460,322	1,624,170	9,084,492	0.593
	2021	7,706,776	2,739,047	10,445,823	0.650

1 Includes all vested and unvested shares of GEB members, including those held by related parties. No options were held in 2022 and 2021 by any GEB member or any of its related parties. Refer to “Note 27 Employee benefits: variable compensation” in the “Consolidated financial statements” section of our Annual Report 2022 for more information.

2 Includes shares granted under variable compensation plans with forfeiture provisions. For the 2019/20 LTIP award, the values reflect the final value. For all other LTIP awards, the values reflect the fair value awarded at grant. The actual number of shares vesting in the future will be calculated under the terms of the plans. Refer to the “Group compensation” section of this report for more information about the plans.



Audited |

Total of all vested and unvested shares of GEB members^{1,2}

	Total	of which: vested	of which: vesting					
			2023	2024	2025	2026	2027	2028
Shares on 31 December 2022	9,084,492	1,624,170	1,572,210	1,952,123	2,020,881	1,281,201	599,733	34,174
Shares on 31 December 2021	10,445,823	2,739,047	1,463,440	1,688,568	2,112,516	1,488,544	877,856	75,852

1 Includes shares held by related parties.

2 Includes shares granted under variable compensation plans with forfeiture provisions. The actual number of shares vesting in the future will be calculated under the terms of the plans. Refer to the “Group compensation” section of this report for more information.



Audited |
Number of shares of BoD members¹

Name, function	on 31 December	Number of shares held	Voting rights in %
Colm Kelleher, Chairman ²	2022	339,084	0.022
	2021	—	
Lukas Gähwiler, Vice Chairman ^{2, 3}	2022	283,907	0.019
	2021	—	
Axel A. Weber, former Chairman ²	2022	—	
	2021	1,148,369	0.071
Jeremy Anderson, Senior Independent Director	2022	119,660	0.008
	2021	97,518	0.006
Claudia Böckstiegel, member	2022	7,814	0.001
	2021	0	0.000
William C. Dudley, member	2022	66,646	0.004
	2021	49,714	0.003
Patrick Firmenich, member	2022	27,275	0.002
	2021	0	0.000
Reto Francioni, member ²	2022	—	
	2021	139,609	0.009
Fred Hu, member	2022	97,543	0.006
	2021	74,481	0.005
Mark Hughes, member	2022	48,497	0.003
	2021	30,263	0.002
Nathalie Rachou, member	2022	31,126	0.002
	2021	18,102	0.001
Julie G. Richardson, member	2022	138,204	0.009
	2021	117,365	0.007
Dieter Wemmer, member	2022	132,320	0.009
	2021	114,086	0.007
Jeanette Wong, member	2022	93,440	0.006
	2021	68,452	0.004
Total	2022	1,385,516	0.090
	2021	1,857,959	0.116

- 1 Includes blocked and unblocked shares held by BoD members, including those held by related parties. No options were granted in 2022 and 2021.
- 2 At the 2022 AGM, Lukas Gähwiler and Colm Kelleher were newly elected and Reto Francioni and Axel A. Weber did not stand for re-election.
- 3 Includes 203,246 unvested shares granted under variable compensation plans with forfeiture provisions as part of Lukas Gähwiler's compensation for his executive roles previously held at UBS.



Audited |
Total of all blocked and unblocked shares of BoD members¹

	Total	of which: unblocked	of which: blocked until			
			2023	2024	2025	2026
Shares on 31 December 2022	1,385,516²	472,981	207,155	250,165	262,671	192,544
Shares on 31 December 2021	1,857,959	701,594	178,603	305,947	329,875	341,940

- 1 Includes shares held by related parties.
- 2 Includes 203,246 unvested shares granted under variable compensation plans with forfeiture provisions as part of Lukas Gähwiler's compensation for his executive roles previously held at UBS.



Audited |

Loans granted to GEB members¹

Pursuant to article 38 of the Articles of Association (the AoA) of UBS Group AG, GEB members may be granted loans. Such loans are made in the ordinary course of business on substantially the same terms as those granted to other employees, including interest rates and collateral, and neither involve more than the normal risk of collectability nor contain any other unfavorable features for the firm. The total amount of such loans must not exceed CHF 20m per GEB member.

CHF, except where indicated²

<u>Name, function</u>	<u>on 31 December</u>	<u>Loans³</u>	<u>USD (for reference) Loans³</u>
Christian Bluhm, Group Chief Risk Officer (highest loan in 2022)	2022	6,927,000	7,494,391
Christian Bluhm, Group Chief Risk Officer (highest loan in 2021)	2021	7,059,000	
Aggregate of all GEB members ⁴	2022	30,752,035	33,270,934
	2021	29,635,590	

- 1 No loans have been granted to related parties of the GEB members at conditions not customary in the market.
- 2 Swiss franc and US dollar amounts disclosed represent local currency amounts translated at the relevant year-end closing exchange rate.
- 3 All loans granted are secured loans.
- 4 No unused uncommitted credit facilities in 2022 and 2021.



Audited |**Loans granted to BoD members¹**

Pursuant to article 33 of the AoA of UBS Group AG, loans to independent BoD members are made in the ordinary course of business at general market conditions. The Vice Chairman, given the full-time nature of his role, may be granted loans in the ordinary course of business on substantially the same terms as those granted to employees, including interest rates and collateral. Such loans neither involve more than the normal risk of collectability nor contain any other unfavorable features for the firm. The total amount of such loans must not exceed CHF 20m per BoD member.

<i>CHF, except where indicated²</i>	on 31 December	Loans^{3,4}	<i>USD (for reference) Loans^{3,4}</i>
Aggregate of all BoD members	2022	0	0
	2021	1,500,000	

- 1 No loans have been granted to related parties of the BoD members at conditions not customary in the market.
- 2 Swiss franc and US dollar amounts disclosed represent local currency amounts translated at the relevant year-end closing exchange rate.
- 3 All loans granted are secured loans.
- 4 No loans in 2022 and CHF 1,500,000 for Reto Francioni in 2021.

**Audited |****Compensation paid to former BoD and GEB members¹**

<i>CHF, except where indicated²</i>	For the year	Compensation	Benefits	Total	<i>USD (for reference) Total</i>
Former BoD members	2022	0	0	0	0
	2021	0	0	0	
Aggregate of all former GEB members ³	2022	0	89,657	89,657	97,001
	2021	0	187,876	187,876	
Aggregate of all former BoD and GEB members	2022	0	89,657	89,657	97,001
	2021	0	187,876	187,876	

- 1 Compensation or remuneration that is related to the former members' activity on the BoD or GEB or that is not at market conditions.
- 2 Swiss franc and US dollar amounts disclosed represent local currency amounts translated at the relevant year-end closing exchange rate.
- 3 Includes benefit payments in 2022 and 2021 to two former GEB members.

Provisions of the Articles of Association related to compensation

Swiss say-on-pay provisions give shareholders of companies listed in Switzerland significant influence over board and management compensation. At UBS, this is achieved by means of an annual binding say-on-pay vote in accordance with the following provisions of the AoA.

Say on pay

In line with article 43 of the AoA, the General Meeting approves proposals from the BoD in relation to:

- a) the maximum aggregate amount of compensation of the BoD for the period until the next AGM;
- b) the maximum aggregate amount of fixed compensation of the GEB for the following financial year; and
- c) the aggregate amount of variable compensation of the GEB for the preceding financial year.

The BoD may submit for approval by the General Meeting deviating or additional proposals relating to the same or different periods. If the General Meeting does not approve a proposal from the BoD, the BoD will determine, taking into account all relevant factors, the respective (maximum) aggregate amount or (maximum) partial amounts and submit the amount(s) so determined for approval by the General Meeting. UBS Group AG or companies controlled by it may pay or grant compensation prior to approval by the General Meeting, subject to subsequent approval.

Principles of compensation

In line with articles 45 and 46 of the AoA, compensation of the members of the BoD includes base remuneration and may include other compensation elements and benefits. Compensation of the members of the BoD is intended to recognize the responsibility and governance nature of their role, to attract and retain qualified individuals, and to ensure alignment with shareholders' interests.

Compensation of the members of the GEB includes fixed and variable compensation elements. Fixed compensation includes the base salary and may include other compensation elements and benefits. Variable compensation elements are governed by financial and non-financial performance measures that take into account the performance of UBS Group AG and / or parts thereof, targets in relation to the market, other companies or comparable benchmarks, short- and long-term strategic objectives, and / or individual targets. The BoD or, where delegated to it, the Compensation Committee, determines the respective performance measures, the overall and individual performance targets, and their achievement. The BoD or, where delegated to it, the Compensation Committee, aims to ensure alignment with sustainable performance and appropriate risk-taking through adequate deferrals, forfeiture conditions, caps on compensation, harmful acts provisions and similar means with regard to parts of or all of the compensation. Parts of variable compensation are subject to a multi-year vesting period.

Additional amount for GEB members appointed after the vote on the aggregate amount of compensation by the AGM

In line with article 46 of the AoA of UBS Group AG, if the maximum aggregate amount of compensation already approved by the General Meeting is not sufficient to also cover the compensation of a person that becomes a member of or is being promoted within the GEB after the General Meeting has approved the compensation, UBS Group AG, or companies controlled by it, is authorized to pay or grant each such GEB member a supplementary amount during the compensation period(s) already approved. The aggregate pool for such supplementary amounts per compensation period cannot exceed 40% of the average of total annual compensation paid or granted to the GEB during the previous three years.

- **Refer to ubs.com/governance for more information**



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To the General Meeting of
UBS Group AG, Zurich

Basel, 3 March 2023

Opinion

We have audited the Compensation Report of UBS Group AG (the Company) for the year ended 31 December 2022. The audit was limited to the information on remuneration, loans and advances pursuant to Art. 14-16 of the Ordinance against Excessive Remuneration in Listed Companies Limited by Shares (Verordnung gegen Übermässige Vergütungen bei börsenkotierten Aktiengesellschaften, VegÜV) in the tables marked "audited" of the Compensation Report: Approved fixed compensation, Total compensation for GEB Members, Remuneration details and additional information for BoD members, Loans granted to GEB members, Loans granted to BoD members and Compensation paid to former BoD and GEB members.

Basis for opinion

We conducted our audit in accordance with Swiss law and Swiss Standards on Auditing (SA-CH). Our responsibilities under those provisions and standards are further described in the "Auditor's responsibilities for the audit of the Compensation Report" section of our report. We are independent of the Company in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other information

The Board of Directors is responsible for the other information. The other information comprises the information included in the annual report, but does not include the tables referenced above in the Compensation Report, the consolidated financial statements, the stand-alone financial statements and our auditor's reports thereon.

Our opinion on the Compensation Report does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the Compensation Report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the audited financial information in the Compensation Report, or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Board of Directors' responsibilities for the Compensation Report

The Board of Directors is responsible for the preparation of a Compensation Report in accordance with the provisions of Swiss law and the Company's articles of incorporation, and for such internal control as the Board of Directors determines is necessary to enable the preparation of a Compensation Report that is free from material misstatement, whether due to fraud or error. The Board of Directors is also responsible for designing the compensation system and defining individual compensation packages.

Auditor's responsibilities for the audit of the Compensation Report

Our objectives are to obtain reasonable assurance about whether the information on remuneration, loans and advances pursuant to Art. 14-16 VegÜV is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and SA-CH will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this Compensation Report.

As part of an audit in accordance with Swiss law and SA-CH, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement in the Compensation Report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

Ernst & Young Ltd

Maurice McCormick
Licensed audit expert
(Auditor in charge)

Eveline Hunziker
Licensed audit expert

Financial statements

Consolidated financial statements

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Management's report on internal control over financial reporting

Management's responsibility for internal control over financial reporting

The Board of Directors and management of UBS Group AG (UBS) are responsible for establishing and maintaining adequate internal control over financial reporting. UBS's internal control over financial reporting is designed to provide reasonable assurance regarding the preparation and fair presentation of published financial statements in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB).

UBS's internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation and fair presentation of financial statements, and that receipts and expenditures of the company are being made only in accordance with authorizations of UBS management; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management's assessment of internal control over financial reporting as of 31 December 2022

UBS management has assessed the effectiveness of UBS's internal control over financial reporting as of 31 December 2022 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control – Integrated Framework (2013 Framework). Based on this assessment, management believes that, as of 31 December 2022, UBS's internal control over financial reporting was effective.

The effectiveness of UBS's internal control over financial reporting as of 31 December 2022 has been audited by Ernst & Young Ltd, UBS's independent registered public accounting firm, as stated in their *Report of the independent registered public accounting firm on internal control over financial reporting*, which expresses an unqualified opinion on the effectiveness of UBS's internal control over financial reporting as of 31 December 2022.



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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of UBS Group AG

Opinion on Internal Control over Financial Reporting

We have audited UBS Group AG and subsidiaries' internal control over financial reporting as of 31 December 2022, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, UBS Group AG and subsidiaries ("the Group") maintained, in all material respects, effective internal control over financial reporting as of 31 December 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Group as of 31 December 2022 and 2021, the related consolidated income statements, statements of comprehensive income, statements of changes in equity and statements of cash flows for each of the three years in the period ended 31 December 2022, and the related notes and our report dated 3 March 2023 expressed an unqualified opinion thereon.

Basis for Opinion

The Group's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Group's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Group in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Ernst & Young Ltd

Ernst & Young Ltd
Basel, 3 March 2023



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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of UBS Group AG

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of UBS Group AG and subsidiaries ("the Group") as of 31 December 2022 and 2021, the related consolidated income statements, statements of comprehensive income, statements of changes in equity and statements of cash flows for each of the three years in the period ended 31 December 2022, and the related notes to the consolidated financial statements, including the information identified as "audited" as described in Note 1 (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Group at 31 December 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended 31 December 2022, in conformity with the International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Group's internal control over financial reporting as of 31 December 2021, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated 3 March 2022 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Group's Board of Directors. Our responsibility is to express an opinion on the Group's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Group in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Valuation of complex or illiquid instruments at fair value

Description of the Matter At 31 December 2022, as explained in Notes 1 and 20 to the consolidated financial statements, the Group held financial assets and liabilities measured at fair value of USD 342,166 million and USD 333,381 million, including financial instruments that did not trade in active markets. These instruments are reported within the following accounts: financial assets and liabilities at fair value held for trading, derivative financial instruments, financial assets at fair value not held for trading, debt issued designated at fair value, and other financial liabilities designated at fair value. In determining the fair value of these financial instruments, the Group used valuation techniques, modelling assumptions, and estimates of unobservable market inputs which required significant management judgment.

Auditing management's judgments and assumptions used in the estimation of the fair value of these instruments was complex due to the highly judgmental nature of valuation techniques, key modelling assumptions and significant unobservable inputs. Auditing the valuation of complex or illiquid instruments at fair value included consideration of any incremental risks arising from the impact of current macroeconomic influences on valuation techniques and inputs, such as geopolitics, inflation, and the ongoing COVID-19 pandemic. The valuation techniques that required especially complex judgement were comprised of discounted cash flow and earnings-based valuation techniques. Highly judgmental modelling assumptions result from a range of different models or model calibrations used by market participants. Valuation inputs which were particularly complex and subjective included those with a limited degree of observability and the associated extrapolation, interpolation or calibration of curves using limited and proxy data points. Examples of such inputs included unobservable credit spreads and bond prices, volatility, and correlation.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design and tested the operating effectiveness of the controls over management's financial instruments valuation processes, including controls over market data inputs, model and methodology governance, and valuation adjustments.

We tested the valuation techniques, models and methodologies, and the inputs used in those models, as outlined above, by performing an independent revaluation of certain complex or illiquid financial assets and liabilities with the support of specialists. We used independent models and inputs, and compared inputs to available market data among other procedures. We also independently challenged key judgments in relation to a sample of fair value adjustments.

We also assessed management's disclosures regarding fair value measurement (within Notes 1 and 20 to the consolidated financial statements).

Recognition of deferred tax assets

Description of the Matter At 31 December 2022, the Group's deferred tax assets ("DTA") were USD 9,389 million (see Note 8 to the consolidated financial statements). DTAs are recognized to the extent it is probable that taxable profits will be available, against which, the applicable deductible temporary differences or the carryforward of unused tax losses within the loss carryforward

period can be utilized. There is significant judgment exercised when estimating future taxable income that is not based on the reversal of taxable temporary differences. Management's estimate of future taxable profits is based on its strategic plan that is sensitive to the assumptions made in estimating future taxable income.

Auditing management's assessment of the recognition of the Group's DTAs was complex due to the highly judgmental nature of estimating future taxable profits over the life of underlying tax loss carryforwards. Estimating future profitability is inherently subjective as it is sensitive to future economic, market and other conditions, which are difficult to predict, such as the impact of geopolitics, inflation, interest rates, and the ongoing COVID-19 pandemic. Specifically, some of the more subjective key macroeconomic assumptions used included gross domestic product growth rates, equity market performance, and interest rate expectations.

*How We
Addressed the
Matter in Our
Audit*

We obtained an understanding, evaluated the design, and tested the operating effectiveness of management's controls over DTA valuation, which included the assumptions used in developing the strategic plans and estimating future taxable income.

We assessed the completeness and accuracy of the data used for the estimations of future taxable income. This included recalculating the outputs of models applied to the recognition process for DTAs.

We involved specialists to assist in assessing the key economic assumptions embedded in the strategic plans. We compared key assumptions used to forecast future taxable income to externally available historical and prospective data and assumptions, and assessed the sensitivity of the outcomes using reasonably possible changes in assumptions.

We also assessed management's disclosure regarding recognized and unrecognized deferred tax assets (within Note 8 to the consolidated financial statements).

Expected credit losses

*Description of
the Matter*

At 31 December 2022, the Group's allowances and provisions for expected credit losses ("ECL") were USD 1,091 million. As explained in Notes 1, 9 and 19 to the consolidated financial statements, ECL is recognized for financial assets measured at amortized cost, financial assets measured at fair value through other comprehensive income, fee and lease receivables, financial guarantees and irrevocable loan commitments. ECL is also recognized on the undrawn portion of revolving revocable credit lines, which include the Group's credit card limits and master credit facilities. The allowances and provisions for ECL consists of exposures that are in default which are individually evaluated for impairment (stage 3), as well as losses inherent in the loan portfolio that are not specifically identified (stage 1 and stage 2). Management's ECL estimates represent the difference between contractual cash flows and those the Group expects to receive, discounted at the effective interest rate. The method used to calculate ECL is based on a combination of the following principal factors: probability of default ("PD"), loss given default ("LGD") and exposure at default ("EAD").

Auditing management's estimate of the allowances and provisions for ECL was complex due to the highly judgmental nature of forward-looking economic scenarios that form the basis of the ECL calculation, their probability weightings, and the credit risk models used to estimate stage 1 and stage 2 ECL. The geopolitical tensions and macroeconomic developments during 2022, such as the Russian invasion into Ukraine, US/China developments, inflation, including emerging stagflation risks and monetary policy challenges, and continued restrictions in certain locations due to the ongoing COVID-19 pandemic contribute to further uncertainty, and as a consequence additional complexity in estimating ECL. As a result, the ECL estimation requires higher management judgement, specifically within the following two areas: (i) scenario selection, including assumptions about the scenario severity, the possible geopolitical developments and macroeconomic and market developments, and the number of scenarios necessary to sufficiently cover the bandwidth of potential outcomes, as well as related scenario weights and post-model adjustments; and, (ii) credit risk models, since the output from historic data based models may not be indicative of current or future conditions.

Additionally, auditing the measurement of individual ECL for stage 3 was complex due to the high degree of judgment involved in management's process for estimating ECL based on assumptions. These assumptions take into account expected future cash flows from collateral and other credit enhancements or expected payouts from bankruptcy proceedings for unsecured claims and, where applicable, time to realization of collateral and the seniority of claims.

*How We
Addressed the
Matter in Our
Audit*

We obtained an understanding, evaluated the design and tested the operating effectiveness of management's controls over the ECL estimate, including management's choice of forward-looking economic scenarios used to measure ECL and the probability weighting assigned to such scenarios. We evaluated management's methodologies and governance controls for developing and monitoring the economic scenarios used and the probability weightings assigned to them, and related post-model adjustment. Supported by specialists, we assessed the key macroeconomic variables used in the forward-looking scenarios, such as real gross domestic product growth, unemployment rate, interest rates and house price indices, and evaluated the modelled correlation and translation of those macroeconomic factors to the ECL estimate. We further assessed the appropriateness of the post-model adjustments by considering management's governance process, assumptions used and sensitivity analysis.

We also obtained an understanding, evaluated the design and tested the operating effectiveness of controls over credit risk models used in the ECL estimate, including controls over the completeness and accuracy of model input data, calculation logic, and output data used in the overall ECL calculation. With the support of specialists, on a sample basis, we performed an evaluation of management's models and tested the model outcomes by inspecting model documentation, reperforming model calculations, and comparing data used as inputs to management's forecast to external sources, among other procedures.

For the measurement of stage 3, we obtained an understanding, evaluated the design and tested the operating effectiveness of controls over management's process, including an evaluation of the assumptions used by management regarding the future cash flows from debtors' continuing operations and/or the liquidation of collateral. Supported by specialists in certain areas, we additionally tested collateral valuation, cash flow assumptions and exit strategies by performing inquiries of management, inspecting underlying documents, such as



loan contracts, financial statements, covenants, budgets and business plans, and by re-performing discounted cash flow calculations among other procedures, on a sample basis.

We also assessed management's disclosures regarding financial assets at amortized cost and other positions in scope of expected credit loss measurement (within Notes 1, 9 and 19 to the consolidated financial statements).

Ernst & Young Ltd

Ernst & Young Ltd

We have served as the Group's auditor since 1998.

Basel, Switzerland

3 March 2023

UBS Group AG consolidated financial statements

Primary financial statements and share information

**Audited |
Income statement**

<i>USD m</i>	Note	For the year ended		
		31.12.22	31.12.21	31.12.20
Interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	3	11,782	8,533	8,810
Interest expense from financial instruments measured at amortized cost	3	(6,564)	(3,259)	(4,247)
Net interest income from financial instruments measured at fair value through profit or loss and other	3	1,403	1,431	1,299
Net interest income	3	6,621	6,705	5,862
Other net income from financial instruments measured at fair value through profit or loss	3	7,517	5,850	6,960
Fee and commission income	4	20,789	24,372	20,961
Fee and commission expense	4	(1,823)	(1,985)	(1,775)
Net fee and commission income	4	18,966	22,387	19,186
Other income	5	1,459	452	1,076
Total revenues		<u>34,563</u>	<u>35,393</u>	<u>33,084</u>
Credit loss expense / (release)	19	29	(148)	694
Personnel expenses	6	17,680	18,387	17,224
General and administrative expenses	7	5,189	5,553	4,885
Depreciation, amortization and impairment of non-financial assets	11, 12	2,061	2,118	2,126
Operating expenses		<u>24,930</u>	<u>26,058</u>	<u>24,235</u>
Operating profit / (loss) before tax		<u>9,604</u>	9,484	8,155
Tax expense / (benefit)	8	1,942	1,998	1,583
Net profit / (loss)		<u>7,661</u>	<u>7,486</u>	<u>6,572</u>
Net profit / (loss) attributable to non-controlling interests		32	29	15
Net profit / (loss) attributable to shareholders		<u>7,630</u>	<u>7,457</u>	<u>6,557</u>
Earnings per share (USD)				
Basic		2.34	2.14	1.83
Diluted		2.25	2.06	1.77

Statement of comprehensive income

USD m	Note	For the year ended		
		31.12.22	31.12.21	31.12.20
Comprehensive income attributable to shareholders				
Net profit / (loss)		<u>7,630</u>	<u>7,457</u>	<u>6,557</u>
Other comprehensive income that may be reclassified to the income statement				
Foreign currency translation				
Foreign currency translation movements related to net assets of foreign operations, before tax		(894)	(1,076)	2,103
Effective portion of changes in fair value of hedging instruments designated as net investment hedges, before tax		337	498	(936)
Foreign currency translation differences on foreign operations reclassified to the income statement		32	(2)	(7)
Effective portion of changes in fair value of hedging instruments designated as net investment hedges reclassified to the income statement		(4)	10	2
Income tax relating to foreign currency translations, including the effect of net investment hedges		4	35	(67)
Subtotal foreign currency translation, net of tax		<u>(525)</u>	<u>(535)</u>	<u>1,095</u>
Financial assets measured at fair value through other comprehensive income				
Net unrealized gains / (losses), before tax		(440)	(203)	223
Net realized (gains) / losses reclassified to the income statement from equity		1	(9)	(40)
Reclassification of financial assets to Other financial assets measured at amortized cost ¹		449		
Income tax relating to net unrealized gains / (losses)		(3)	55	(48)
Subtotal financial assets measured at fair value through other comprehensive income, net of tax		<u>6</u>	<u>(157)</u>	<u>136</u>
Cash flow hedges of interest rate risk 25				
Effective portion of changes in fair value of derivative instruments designated as cash flow hedges, before tax		(5,758)	(992)	2,012
Net (gains) / losses reclassified to the income statement from equity		(159)	(1,073)	(770)
Income tax relating to cash flow hedges		1,124	390	(231)
Subtotal cash flow hedges, net of tax		<u>(4,793)²</u>	<u>(1,675)</u>	<u>1,011</u>
Cost of hedging 25				
Cost of hedging, before tax		45	(32)	(13)
Income tax relating to cost of hedging		0	6	0
Subtotal cost of hedging, net of tax		<u>45</u>	<u>(26)</u>	<u>(13)</u>
Total other comprehensive income that may be reclassified to the income statement, net of tax		<u>(5,267)</u>	<u>(2,393)</u>	<u>2,230</u>
Other comprehensive income that will not be reclassified to the income statement				
Defined benefit plans 26				
Gains / (losses) on defined benefit plans, before tax		(73)	2	(327)
Income tax relating to defined benefit plans		63	(7)	109
Subtotal defined benefit plans, net of tax		<u>(10)</u>	<u>(5)</u>	<u>(218)</u>
Own credit on financial liabilities designated at fair value 20				
Gains / (losses) from own credit on financial liabilities designated at fair value, before tax		867	46	(293)
Income tax relating to own credit on financial liabilities designated at fair value		(71)	0	0
Subtotal own credit on financial liabilities designated at fair value, net of tax		<u>796</u>	<u>46</u>	<u>(293)</u>
Total other comprehensive income that will not be reclassified to the income statement, net of tax		<u>786</u>	<u>42</u>	<u>(511)</u>
Total other comprehensive income		<u>(4,481)</u>	<u>(2,351)</u>	<u>1,719</u>
Total comprehensive income attributable to shareholders		<u>3,149</u>	<u>5,106</u>	<u>8,276</u>
Comprehensive income attributable to non-controlling interests				
Net profit / (loss)		<u>32</u>	<u>29</u>	<u>15</u>
Total other comprehensive income that will not be reclassified to the income statement, net of tax		<u>(14)</u>	<u>(16)</u>	<u>21</u>
Total comprehensive income attributable to non-controlling interests		<u>18</u>	<u>13</u>	<u>36</u>
Total comprehensive income		<u>7,661</u>	<u>7,486</u>	<u>6,572</u>
Net profit / (loss)		<u>7,661</u>	<u>7,486</u>	<u>6,572</u>
Other comprehensive income		<u>(4,494)</u>	<u>(2,367)</u>	<u>1,740</u>
<i>of which: other comprehensive income that may be reclassified to the income statement</i>		<u>(5,267)</u>	<u>(2,393)</u>	<u>2,230</u>
<i>of which: other comprehensive income that will not be reclassified to the income statement</i>		<u>772</u>	<u>26</u>	<u>(490)</u>
Total comprehensive income		<u>3,167</u>	<u>5,119</u>	<u>8,312</u>

1 Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. Refer to Note 1b for more information.

2 Mainly reflects net unrealized losses on US dollar hedging derivatives resulting from significant increases in the relevant US dollar long-term interest rates.

Balance sheet

<i>USD m</i>	Note	31.12.22	31.12.21
Assets			
Cash and balances at central banks		169,445	192,817
Loans and advances to banks	9	14,792	15,480
Receivables from securities financing transactions measured at amortized cost	9, 21	67,814	75,012
Cash collateral receivables on derivative instruments	9, 21	35,032	30,514
Loans and advances to customers	9	387,220	397,761
Other financial assets measured at amortized cost	9, 13a	53,264	26,209
Total financial assets measured at amortized cost		727,568	737,794
Financial assets at fair value held for trading	20	107,866	130,821
<i>of which: assets pledged as collateral that may be sold or repledged by counterparties</i>		36,742	43,397
Derivative financial instruments	10, 20, 21	150,108	118,142
Brokerage receivables	20	17,576	21,839
Financial assets at fair value not held for trading	20	59,796	60,080
Total financial assets measured at fair value through profit or loss		335,347	330,882
Financial assets measured at fair value through other comprehensive income	19, 20	2,239	8,844
Investments in associates	28b	1,101	1,243
Property, equipment and software	11	12,288	12,888
Goodwill and intangible assets	12	6,267	6,378
Deferred tax assets	8	9,389	8,876
Other non-financial assets	13b	10,166	10,277
Total assets		1,104,364	1,117,182
Liabilities			
Amounts due to banks		11,596	13,101
Payables from securities financing transactions measured at amortized cost	21	4,202	5,533
Cash collateral payables on derivative instruments	21	36,436	31,798
Customer deposits	14	525,051	542,007
Debt issued measured at amortized cost	16	114,621	139,155
Other financial liabilities measured at amortized cost	18a	9,575	9,001
Total financial liabilities measured at amortized cost		701,481	740,595
Financial liabilities at fair value held for trading	20	29,515	31,688
Derivative financial instruments	10, 20, 21	154,906	121,309
Brokerage payables designated at fair value	20	45,085	44,045
Debt issued designated at fair value	15, 20	73,638	73,799
Other financial liabilities designated at fair value	18b, 20	30,237	30,074
Total financial liabilities measured at fair value through profit or loss		333,381	300,916
Provisions	17a	3,243	3,518
Other non-financial liabilities	18c	9,040	11,151
Total liabilities		1,047,146	1,056,180
Equity			
Share capital		304	322
Share premium		13,546	15,928
Treasury shares		(6,874)	(4,675)
Retained earnings		50,004	43,851
Other comprehensive income recognized directly in equity, net of tax		(103)	5,236
Equity attributable to shareholders		56,876	60,662
Equity attributable to non-controlling interests		342	340
Total equity		57,218	61,002
Total liabilities and equity		1,104,364	1,117,182

Statement of changes in equity

<i>USD m</i>	Share capital	Share premium	Treasury shares	Retained earnings
Balance as of 31 December 2019	338	18,064	(3,326)	34,122
Acquisition of treasury shares			(1,584) ²	
Delivery of treasury shares under share-based compensation plans		(628)	719	
Other disposal of treasury shares		(11)	123 ²	
Share-based compensation expensed in the income statement		691		
Tax (expense) / benefit		18		
Dividends		(1,304) ³		(1,304) ³
Translation effects recognized directly in retained earnings				(49)
Share of changes in retained earnings of associates and joint ventures				(40)
New consolidations / (deconsolidations) and other increases / (decreases) ⁴		(76)		
Total comprehensive income for the year				6,046
<i>of which: net profit / (loss)</i>				6,557
<i>of which: OCI, net of tax</i>				(511)
Balance as of 31 December 2020	338	16,753	(4,068)	38,776
Acquisition of treasury shares			(3,521) ²	
Delivery of treasury shares under share-based compensation plans		(675)	789	
Other disposal of treasury shares		7	81 ²	
Cancellation of treasury shares related to the 2018–2021 share repurchase program	(16)	(236)	2,044	(1,792)
Share-based compensation expensed in the income statement		643		
Tax (expense) / benefit		(88)		
Dividends		(651) ³		(651) ³
Equity classified as obligation to purchase own shares		(7)		
Translation effects recognized directly in retained earnings				18
Share of changes in retained earnings of associates and joint ventures				1
New consolidations / (deconsolidations) and other increases / (decreases) ⁵		182		
Total comprehensive income for the year				7,499
<i>of which: net profit / (loss)</i>				7,457
<i>of which: OCI, net of tax</i>				42
Balance as of 31 December 2021	322	15,928	(4,675)	43,851
Acquisition of treasury shares			(6,262) ²	
Delivery of treasury shares under share-based compensation plans		(763)	879	
Other disposal of treasury shares		(1)	164 ²	
Cancellation of treasury shares related to the 2021 share repurchase program ⁶	(18)	(1,502)	3,022	(1,502)
Share-based compensation expensed in the income statement		716		
Tax (expense) / benefit		13		
Dividends		(834) ³		(834) ³
Equity classified as obligation to purchase own shares		(15)		
Translation effects recognized directly in retained earnings				69
Share of changes in retained earnings of associates and joint ventures				0
New consolidations / (deconsolidations) and other increases / (decreases)		4		3
Total comprehensive income for the year				8,415
<i>of which: net profit / (loss)</i>				7,630
<i>of which: OCI, net of tax</i>				786
Balance as of 31 December 2022	304	13,546	(6,874)	50,004

- 1 Excludes other comprehensive income related to defined benefit plans and own credit, which is recorded directly in Retained earnings.
- 2 Includes treasury shares acquired and disposed of by the Investment Bank in its capacity as a market-maker with regard to UBS Group AG shares and related derivatives, and to hedge certain issued structured debt instruments. These acquisitions and disposals are reported based on the sum of the net monthly movements.
- 3 Reflects the payment of an ordinary cash dividend of USD 0.50 (2021: USD 0.37, 2020: USD 0.73) per dividend-bearing share. From 2020 onward, Swiss tax law effective 1 January 2020 requires that Switzerland-domiciled companies with shares listed on a stock exchange pay no more than 50% of dividends from capital contribution reserves, with the remainder required to be paid from retained earnings.
- 4 Mainly relates to the establishment of a banking partnership with Banco do Brasil. In 2020, UBS issued a 49.99% stake in UBS Brasil Serviços in exchange for exclusive access to Banco do Brasil's corporate clients. Upon completion of the transaction in 2020, equity attributable to non-controlling interests increased by USD 115m, with no material effect on equity attributable to shareholders.
- 5 Includes the effects related to the launch of UBS's operational partnership entity with Sumitomo Mitsui Trust Holdings, Inc. in 2021.
- 6 Reflects the cancellation of 177,787,273 shares purchased under UBS's 2021 share repurchase program from its inception in 2021 until 18 February 2022, as approved by shareholders at the 2022 Annual General Meeting. For shares repurchased from 2020 onward, Swiss tax law effective 1 January 2020 requires Switzerland-domiciled companies with shares listed on a Swiss stock exchange to reduce capital contribution reserves by at least 50% of the total capital reduction amount exceeding the nominal value upon cancellation of the shares.

Other comprehensive income recognized directly in equity, net of tax ¹	<i>of which: foreign currency translation</i>	<i>of which: financial assets at fair value through OCI</i>	<i>of which: cash flow hedges</i>	Total equity attributable to shareholders	Non-controlling interests	Total equity
5,303	4,028	14	1,260	54,501	174	54,675
				(1,584)		(1,584)
				90		90
				112		112
				691		691
				18		18
				(2,607)	(6)	(2,613)
49		0	49	0		0
				(40)		(40)
65	65			(12)	115	103
2,230	1,095	136	1,011	8,276	36	8,312
				6,557	15	6,572
<u>2,230</u>	<u>1,095</u>	<u>136</u>	<u>1,011</u>	<u>1,719</u>	<u>21</u>	<u>1,740</u>
7,647	5,188	151	2,321	59,445	319	59,765
				(3,521)		(3,521)
				114		114
				88		88
				0		0
				643		643
				(88)		(88)
				(1,301)	(4)	(1,305)
				(7)		(7)
(18)		0	(18)	0		0
				1		1
				182	12	193
<u>(2,393)</u>	<u>(535)</u>	<u>(157)</u>	<u>(1,675)</u>	<u>5,106</u>	<u>13</u>	<u>5,119</u>
				7,457	29	7,486
(2,393)	(535)	(157)	(1,675)	(2,351)	(16)	(2,367)
5,236	4,653	(7)	628	60,662	340	61,002
				(6,262)		(6,262)
				115		115
				163		163
				0		0
				716		716
				13		13
				(1,668)	(9)	(1,677)
				(15)		(15)
(69)		0	(69)	0		0
				0		0
(3)		(3)		4	(7)	(3)
<u>(5,267)</u>	<u>(525)</u>	<u>6</u>	<u>(4,793)</u>	<u>3,149</u>	<u>18</u>	<u>3,167</u>
				7,630	32	7,661
<u>(5,267)</u>	<u>(525)</u>	<u>6</u>	<u>(4,793)</u>	<u>(4,481)</u>	<u>(14)</u>	<u>(4,494)</u>
<u>(103)</u>	<u>4,128</u>	<u>(4)</u>	<u>(4,234)</u>	<u>56,876</u>	<u>342</u>	<u>57,218</u>

Share information and earnings per share

Ordinary share capital

As of 31 December 2022, UBS Group AG had 3,524,635,722 issued shares (31 December 2021: 3,702,422,995 shares) with a nominal value of CHF 0.10 each, leading to a share capital of CHF 352,463,572.20. Shares issued decreased by 177,787,273 shares and share capital decreased by USD 18m in 2022, as the shares acquired under the 2021 share repurchase program from its inception in 2021 until 18 February 2022 were canceled by means of a capital reduction, as approved by shareholders at the 2022 Annual General Meeting (the AGM).

Following revisions to Swiss Corporate Law that are effective from 1 January 2023, the Board of Directors (the BoD) will propose at the 2023 AGM that the shareholders approve the conversion of the share capital currency of UBS Group AG from the Swiss franc to the US dollar. This would align the share capital currency with the financial statement presentation currency of UBS Group AG. If the change is approved, the share capital of UBS Group AG will be slightly reduced to a nominal value per share of USD 0.10 (from CHF 0.10 currently), with the amount of the reduction allocated to the capital contribution reserve (presented as *Share premium* in the consolidated financial statements). Total equity reported for UBS Group AG consolidated will not change.

Conditional share capital

As of 31 December 2022, the following conditional share capital was available to UBS Group AG's BoD.

- A maximum of CHF 38,000,000 represented by up to 380,000,000 fully paid registered shares with a nominal value of CHF 0.10 each, to be issued through the voluntary or mandatory exercise of conversion rights and / or warrants granted in connection with the issuance of bonds or similar financial instruments on national or international capital markets. This conditional capital allowance was approved at the Extraordinary General Meeting (the EGM) held on 26 November 2014, having originally been approved at the AGM of UBS AG on 14 April 2010. The BoD has not made use of such allowance.
- A maximum of CHF 12,170,583 represented by 121,705,830 fully paid registered shares with a nominal value of CHF 0.10 each, to be issued upon exercise of employee options and stock appreciation rights issued to employees and members of the management and of the BoD of UBS Group AG and its subsidiaries. This conditional capital allowance was approved by the shareholders at the same EGM in 2014.

Authorized share capital

UBS Group AG had no authorized capital available to issue on 31 December 2022.

Share repurchase programs

In February 2021, UBS initiated a share repurchase program of up to CHF 4bn. Under this program, UBS repurchased 88m shares in 2022 for a total acquisition cost of USD 1,637m (CHF 1,516m).

The 2021 program was concluded on 29 March 2022 and the 177,787,273 shares repurchased under this program from its inception in 2021 until 18 February 2022 for a total acquisition cost of USD 3,022m (CHF 2,775m) were canceled by means of a capital reduction, as approved by shareholders at the 2022 AGM. UBS intends to cancel the remaining 62,548,000 shares purchased under the 2021 program, subject to shareholder approval at the 2023 AGM.

In March 2022, UBS commenced a new two-year share repurchase program of up to USD 6bn. Under this program, UBS repurchased 234m shares in 2022 for a total acquisition cost of USD 3,944m (CHF 3,808m). UBS also intends to cancel the shares purchased under the 2022 program by means of a capital reduction, pending approval by shareholders at a future AGM.

	As of or for the year ended		
	31.12.22	31.12.21	31.12.20
Shares outstanding			
Shares issued			
Balance at the beginning of the year	3,702,422,995	3,859,055,395	3,859,055,395
Shares canceled	(177,787,273) ¹	(156,632,400) ²	
Balance at the end of the year	<u>3,524,635,722</u>	<u>3,702,422,995</u>	<u>3,859,055,395</u>
Treasury shares			
Balance at the beginning of the year	302,815,328	307,477,002	243,021,296
Acquisitions	359,378,093	214,270,175	128,372,257
Disposals	(67,497,138)	(62,299,449)	(63,916,551)
Cancellation of second trading line treasury shares	(177,787,273) ¹	(156,632,400) ²	
Balance at the end of the year	<u>416,909,010</u>	<u>302,815,328</u>	<u>307,477,002</u>
Shares outstanding	<u>3,107,726,712</u>	<u>3,399,607,667</u>	<u>3,551,578,393</u>
Basic and diluted earnings (USD m)			
Net profit / (loss) attributable to shareholders for basic EPS	7,630	7,457	6,557
Less: (profit) / loss on own equity derivative contracts	0	0	(1)
Net profit / (loss) attributable to shareholders for diluted EPS	<u>7,630</u>	<u>7,457</u>	<u>6,556</u>
Weighted average shares outstanding			
Weighted average shares outstanding for basic EPS ³	3,260,938,561	3,482,963,682	3,583,176,189
Effect of dilutive potential shares resulting from notional employee shares, in-the-money options and warrants outstanding ⁴	136,531,654	144,277,693	123,852,137
Weighted average shares outstanding for diluted EPS	<u>3,397,470,215</u>	<u>3,627,241,375</u>	<u>3,707,028,326</u>
Earnings per share (USD)			
Basic	2.34	2.14	1.83
Diluted	<u>2.25</u>	<u>2.06</u>	<u>1.77</u>
Potentially dilutive instruments⁵			
Employee share-based compensation awards	4,182,799	5,886,945	2,536,789
Other equity derivative contracts	1,690,247	6,553,051	11,414,728
Total	<u>5,873,046</u>	<u>12,439,996</u>	<u>13,951,517</u>

- 1 Reflects the cancellation of shares purchased under UBS's 2021 share repurchase program as approved by shareholders at the 2022 Annual General Meeting (AGM).
- 2 Reflects the cancellation of shares purchased under UBS's 2018–2021 share repurchase program as approved by shareholders at the 2021 AGM.
- 3 The weighted average shares outstanding for basic EPS are calculated by taking the number of shares at the beginning of the period, adjusted by the number of shares acquired or issued during the period, multiplied by a time-weighted factor for the period outstanding. As a result, balances are affected by the timing of acquisitions and issuances during the period.
- 4 The weighted average number of shares for notional employee awards with performance conditions reflects all potentially dilutive shares that are expected to vest under the terms of the awards.
- 5 Reflects potential shares that could dilute basic earnings per share in the future, but were not dilutive for the periods presented.

Statement of cash flows

USD m	For the year ended		
	31.12.22	31.12.21	31.12.20
Cash flow from / (used in) operating activities			
Net profit / (loss)	7,661	7,486	6,572
Non-cash items included in net profit and other adjustments:			
Depreciation, amortization and impairment of non-financial assets	2,061	2,118	2,126
Credit loss expense / (release)	29	(148)	694
Share of net profits of associates and joint ventures and impairment related to associates	(32)	(105)	(84)
Deferred tax expense / (benefit)	494	434	352
Net loss / (gain) from investing activities	(1,470)	(230)	(698)
Net loss / (gain) from financing activities	(16,587)	100	3,246
Other net adjustments	5,844	3,802	(8,076)
Net change in operating assets and liabilities:			
Loans and advances to banks and amounts due to banks	(1,088)	2,148	3,586
Securities financing transactions measured at amortized cost	4,443	(2,316)	9,588
Cash collateral on derivative instruments	76	(3,312)	(3,487)
Loans and advances to customers and customer deposits	(5,163)	2,365	18,149
Financial assets and liabilities at fair value held for trading and derivative financial instruments	8,006	(10,516)	11,259
Brokerage receivables and payables	6,019	8,115	(5,199)
Financial assets at fair value not held for trading and other financial assets and liabilities	5,678	19,609	320
Provisions and other non-financial assets and liabilities	257	3,010	(387)
Income taxes paid, net of refunds	(1,582)	(1,134)	(1,002)
Net cash flow from / (used in) operating activities	14,647	31,425	36,958
Cash flow from / (used in) investing activities			
Purchase of subsidiaries, associates and intangible assets	(3)	(1)	(46)
Disposal of subsidiaries, associates and intangible assets	1,730 ¹	593	674
Purchase of property, equipment and software	(1,643)	(1,841)	(1,854)
Disposal of property, equipment and software	161	295	366
Purchase of financial assets measured at fair value through other comprehensive income	(4,783)	(5,802)	(6,290)
Disposal and redemption of financial assets measured at fair value through other comprehensive income	4,084	5,052	4,530
Net (purchase) / redemption of debt securities measured at amortized cost	(11,993)	(415)	(4,166)
Net cash flow from / (used in) investing activities	(12,447)	(2,119)	(6,785)

Table continues below.

Statement of cash flows (continued)

Table continued from above.

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Cash flow from / (used in) financing activities			
Net short-term debt issued / (repaid)	(12,249)	(3,093)	23,845
Net movements in treasury shares and own equity derivative activity	(6,006)	(3,341)	(1,387)
Distributions paid on UBS shares	(1,668)	(1,301)	(2,607)
Issuance of debt designated at fair value and long-term debt measured at amortized cost	79,115	98,272	80,255
Repayment of debt designated at fair value and long-term debt measured at amortized cost	(67,670)	(79,909)	(87,098)
Net cash flows from other financing activities	(617)	(282)	(575)
Net cash flow from / (used in) financing activities	(9,094)	10,345	12,432
Total cash flow			
Cash and cash equivalents at the beginning of the year	207,875	173,531	119,873
Net cash flow from / (used in) operating, investing and financing activities	(6,895)	39,651	42,605
Effects of exchange rate differences on cash and cash equivalents	(5,659)	(5,307)	11,052
Cash and cash equivalents at the end of the year²	195,321	207,875	173,531
<i>of which: cash and balances at central banks³</i>	<i>169,363</i>	<i>192,706</i>	<i>158,088</i>
<i>of which: loans and advances to banks</i>	<i>13,450</i>	<i>13,942</i>	<i>14,028</i>
<i>of which: money market paper⁴</i>	<i>12,508</i>	<i>1,227</i>	<i>1,415</i>
Additional information			
Net cash flow from / (used in) operating activities includes:			
Interest received in cash	15,718	11,163	11,915
Interest paid in cash	8,198	4,707	6,320
Dividends on equity investments, investment funds and associates received in cash ⁵	1,907	2,531	1,901

- Includes cash proceeds from the sales of: UBS's shareholding in Mitsubishi Corp.-UBS Realty Inc.; UBS's wholly owned subsidiary UBS Swiss Financial Advisers AG; UBS's US alternative investments administration business; and UBS's domestic wealth management business in Spain. Refer to Note 29 for more information. Also includes dividends received from associates.
- USD 4,253m, USD 3,408m and USD 3,828m of cash and cash equivalents (mainly reflected in Loans and advances to banks) were restricted as of 31 December 2022, 31 December 2021 and 31 December 2020, respectively. Refer to Note 22 for more information.
- Includes only balances with an original maturity of three months or less.
- Money market paper is included in the balance sheet under Financial assets at fair value held for trading (31 December 2022: USD 2m; 31 December 2021: USD 20m; 31 December 2020: USD 117m), Financial assets measured at fair value through other comprehensive income (31 December 2022: USD 0m; 31 December 2021: USD 0m; 31 December 2020: USD 178m), Financial assets at fair value not held for trading (31 December 2022: USD 6,048m; 31 December 2021: USD 1,066m; 31 December 2020: USD 536m), and Other financial assets measured at amortized cost (31 December 2022: USD 6,459m; 31 December 2021: USD 141m; 31 December 2020: USD 584m).
- Includes dividends received from associates reported within Net cash flow from / (used in) investing activities.

Changes in liabilities arising from financing activities

<i>USD m</i>	Debt issued	<i>of which:</i>	<i>of which:</i>	Debt issued	Over-the-	Total
	measured at amortized cost	<i>short-term¹</i>	<i>long-term²</i>	designated at fair value	counter debt instruments ³	
Balance as of 1 January 2021	139,232	46,666	92,566	61,243	2,060	202,535
Cash flows	5,070	(3,093)	8,163	10,076	124	15,270
Non-cash changes	(5,148)	(475)	(4,673)	2,480	(56)	(2,724)
of which: foreign currency translation	(3,175)	(475)	(2,700)	(1,617)	(65)	(4,857)
of which: fair value changes				4,097	9	4,106
of which: hedge accounting and other effects	(1,972)		(1,972)			(1,972)
Balance as of 31 December 2021	139,155	43,098	96,057	73,799	2,128	215,082
Cash flows	(14,333)	(12,249)	(2,084)	13,782	(253)	(804)
Non-cash changes	(10,201)	(1,173)	(9,028)	(13,944)	(190)	(24,335)
of which: foreign currency translation	(3,526)	(1,173)	(2,353)	(1,394)	(115)	(5,035)
of which: fair value changes				(12,550)	(75)	(12,625)
of which: hedge accounting and other effects	(6,675)		(6,675)			(6,675)
Balance as of 31 December 2022	114,621	29,676	84,945	73,638	1,684	189,943

- Debt with an original contractual maturity of less than one year.

- 2 Debt with an original maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features.
- 3 Included in balance sheet line Other financial liabilities designated at fair value.

Note 1 Summary of material accounting policies

The following table provides an overview of information included in this Note.

261	a) Material accounting policies	271	3) Fee and commission income and expenses
261	Basis of accounting	272	4) Share-based and other deferred compensation plans
261	1) Consolidation	273	5) Post-employment benefit plans
261	2) Financial instruments	273	6) Income taxes
261	a. Recognition	274	7) Property, equipment and software
262	b. Classification, measurement and presentation	274	8) Goodwill
266	c. Loan commitments and financial guarantees	274	9) Provisions and contingent liabilities
266	d. Interest income and expense	275	10) Foreign currency translation
266	e. Derecognition	275	11) Equity, treasury shares and contracts on UBS Group AG shares
266	f. Fair value of financial instruments		
267	g. Allowances and provisions for expected credit losses	276	b) Changes in accounting policies, comparability and other adjustments
270	h. Restructured and modified financial assets		
270	i. Offsetting		
271	j. Hedge accounting	276	c) International Financial Reporting Standards and Interpretations to be adopted in 2023 and later and other changes

Note 1 Summary of material accounting policies (continued)

a) Material accounting policies

This Note describes the material accounting policies applied in the preparation of the consolidated financial statements (the Financial Statements) of UBS Group AG and its subsidiaries (UBS or the Group). On 23 February 2023, the Financial Statements were authorized for issue by the Board of Directors (the BoD).

Basis of accounting

The Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (the IASB), and are presented in US dollars (USD).

Disclosures marked as audited in the “Risk, capital, liquidity and funding, and balance sheet” section of this report form an integral part of the Financial Statements. These disclosures relate to requirements under IFRS 7, *Financial Instruments: Disclosures*, and IAS 1, *Presentation of Financial Statements*, and are not repeated in this section.

The accounting policies described in this Note have been applied consistently in all years presented unless otherwise stated in Note 1b.

Critical accounting estimates and judgments

Preparation of these Financial Statements under IFRS requires management to apply judgment and make estimates and assumptions that affect reported amounts of assets, liabilities, income and expenses, and disclosure of contingent assets and liabilities, and may involve significant uncertainty at the time they are made. Such estimates and assumptions are based on the best available information. UBS regularly reassesses such estimates and assumptions, which encompass historical experience, expectations of the future and other pertinent factors, to determine their continuing relevance based on current conditions, updating them as necessary. Changes in those estimates and assumptions may have a significant effect on the Financial Statements. Furthermore, actual results may differ significantly from UBS’s estimates, which could result in significant losses to the Group, beyond what was anticipated or provided for.

The following areas contain estimation uncertainty or require critical judgment and have a significant effect on amounts recognized in the Financial Statements:

- expected credit loss measurement (refer to item 2g in this Note and to Note 19);
- fair value measurement (refer to item 2f in this Note and to Note 20);
- income taxes (refer to item 6 in this Note and to Note 8);
- provisions and contingent liabilities (refer to item 9 in this Note and to Note 17);
- post-employment benefit plans (refer to item 5 in this Note and to Note 26);
- goodwill (refer to item 8 in this Note and to Note 12); and
- consolidation of structured entities (refer to item 1 in this Note and to Note 28).

1) Consolidation

The Financial Statements include the financial statements of the parent company (UBS Group AG) and its subsidiaries, presented as a single economic entity; intercompany transactions and balances have been eliminated. UBS consolidates all entities that it controls, including structured entities (SEs), which is the case when it has: (i) power over the relevant activities of the entity; (ii) exposure to an entity’s variable returns; and (iii) the ability to use its power to affect its own returns.

Consideration is given to all facts and circumstances to determine whether the Group has power over another entity, i.e., the current ability to direct the relevant activities of an entity when decisions about those activities need to be made.

Subsidiaries, including SEs, are consolidated from the date when control is gained and deconsolidated from the date when control ceases. Control, or the lack thereof, is reassessed if facts and circumstances indicate that there is a change to one or more elements required to establish that control is present.

Business combinations are accounted for using the acquisition method. The amount of any non-controlling interest is measured at the non-controlling interest’s proportionate share of the acquiree’s identifiable net assets.

> **Refer to Note 28 for more information**

Critical accounting estimates and judgments

Each individual entity is assessed for consolidation in line with the aforementioned consolidation principles. The assessment of control can be complex and requires the use of significant judgment, in particular in determining whether UBS has power over the entity. As the nature and extent of UBS's involvement is unique for each entity, there is no uniform consolidation outcome by entity. Certain entities within a class may be consolidated while others may not. When carrying out the consolidation assessment, judgment is exercised considering all the relevant facts and circumstances, including the nature and activities of the investee, as well as the substance of voting and similar rights.

› **Refer to Note 28 for more information**

2) Financial instruments

a. Recognition

UBS recognizes financial instruments when it becomes a party to contractual provisions of an instrument. UBS applies settlement date accounting to all standard purchases and sales of non-derivative financial instruments.

Note 1 Summary of material accounting policies (continued)

In transactions where UBS acts as a transferee, to the extent the financial asset transfer does not qualify for derecognition by the transferor, UBS does not recognize the transferred instrument as its asset.

UBS also acts in a fiduciary capacity, which results in it holding or placing assets on behalf of individuals, trusts, retirement benefit plans and other institutions. Unless these items meet the definition of an asset and the recognition criteria are satisfied, they are not recognized on UBS's balance sheet and the related income is excluded from the Financial Statements.

Client cash balances associated with derivatives clearing and execution services are not recognized on the balance sheet if, through contractual agreement, regulation or practice, UBS neither obtains benefits from nor controls such cash balances.

b. Classification, measurement and presentation

Financial assets

Where the contractual terms of a debt instrument result in cash flows that are solely payments of principal and interest (SPPI) on the principal amount outstanding, the debt instrument is classified as measured at amortized cost if it is held within a business model that has an objective of holding financial assets to collect contractual cash flows, or at fair value through other comprehensive income (FVOCI) if it is held within a business model with the objective being achieved by both collecting contractual cash flows and selling financial assets.

All other financial assets are measured at fair value through profit or loss (FVTPL), including those held for trading or those managed on a fair value basis, except for derivatives designated in a hedge relationship, in which case hedge accounting requirements apply (refer to item 2j in this Note for more information).

Business model assessment and contractual cash flow characteristics

UBS determines the nature of a business model by considering the way financial assets are managed to achieve a particular business objective.

In assessing whether contractual cash flows are SPPI, the Group considers whether the contractual terms of the financial asset contain a term that could change the timing or amount of contractual cash flows arising over the life of the instrument. This assessment includes contractual cash flows that may vary due to environmental, social and governance (ESG) triggers.

Financial liabilities

Financial liabilities measured at amortized cost

Debt issued measured at amortized cost includes contingent capital instruments containing contractual provisions under which the principal amounts would be written down or converted into equity upon either a specified common equity tier 1 (CET1) ratio breach or a determination by the Swiss Financial Market Supervisory Authority (FINMA) that a viability event has occurred. Such contractual provisions are not derivatives, as the underlying is deemed to be a non-financial variable specific to a party to the contract.

If a debt were to be written down or converted into equity in a future period, it would be partially or fully derecognized, with the difference between its carrying amount and the fair value of any equity issued recognized in the income statement.

A gain or loss is recognized in *Other income* when debt issued is subsequently repurchased for market-making or other activities. A subsequent sale of own bonds in the market is treated as a reissuance of debt.

Financial liabilities measured at fair value through profit or loss

UBS designates certain issued debt instruments as financial liabilities at fair value through profit or loss, on the basis that such financial instruments include non-closely-related embedded derivatives that significantly impact the cash flows of the instrument and / or are managed on a fair value basis (refer to the table below for more information). Financial instruments including embedded derivatives arise predominantly from the issuance of certain structured debt instruments.

Measurement and presentation

After initial recognition, UBS classifies, measures and presents its financial assets and liabilities in accordance with IFRS 9, as described in the table below.

Note 1 Summary of material accounting policies (continued)

Classification, measurement and presentation of financial assets

Financial assets classification	Significant items included	Measurement and presentation
<p>Measured at amortized cost</p>	<p>This classification includes:</p> <ul style="list-style-type: none"> – cash and balances at central banks; – loans and advances to banks; – receivables from securities financing transactions; – cash collateral receivables on derivative instruments; – residential and commercial mortgages; – corporate loans; – secured loans, including Lombard loans, and unsecured loans; – loans to financial advisors; and – debt securities held as high-quality liquid assets (HQLA). 	<p>Measured at amortized cost using the effective interest method less allowances for expected credit losses (ECL) (refer to items 2d and 2g in this Note for more information).</p> <p>The following items are recognized in the income statement:</p> <ul style="list-style-type: none"> – interest income, which is accounted for in accordance with item 2d in this Note; – ECL and reversals; and – foreign exchange (FX) translation gains and losses. <p>When a financial asset at amortized cost is derecognized, the gain or loss is recognized in the income statement.</p> <p>For amounts arising from settlement of certain derivatives, see below in this table.</p>
<p>Measured at FVOCI</p>	<p>Debt instruments measured at FVOCI</p>	<p>This classification primarily includes debt securities and certain asset-backed securities held as HQLA.</p> <p>Measured at fair value, with unrealized gains and losses reported in <i>Other comprehensive income</i>, net of applicable income taxes, until such investments are derecognized. Upon derecognition, any accumulated balances in <i>Other comprehensive income</i> are reclassified to the income statement and reported within <i>Other income</i>.</p> <p>The following items, which are determined on the same basis as for financial assets measured at amortized cost, are recognized in the income statement:</p> <ul style="list-style-type: none"> – interest income, which is accounted for in accordance with item 2d in this Note; – ECL and reversals; and – FX translation gains and losses.

Note 1 Summary of material accounting policies (continued)

Classification, measurement and presentation of financial assets

Financial assets classification	Significant items included	Measurement and presentation	
Measured at FVTPL	Held for trading	<p>Financial assets held for trading include:</p> <ul style="list-style-type: none"> – all derivatives with a positive replacement value, except those that are designated and effective hedging instruments; and – other financial assets acquired principally for the purpose of selling or repurchasing in the near term, or that are part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit taking. Included in this category are debt instruments (including those in the form of securities, money market paper, and traded corporate and bank loans) and equity instruments. 	<p>Measured at fair value, with changes recognized in the income statement.</p> <p>Derivative assets (including derivatives that are designated and effective hedging instruments) are generally presented as <i>Derivative financial instruments</i>, except those exchange-traded derivatives (ETD) and over-the-counter (OTC)-cleared derivatives that are legally settled on a daily basis or economically net settled on a daily basis, which are presented within <i>Cash collateral receivables on derivative instruments</i>.</p> <p>Changes in fair value, initial transaction costs, dividends and gains and losses arising on disposal or redemption are recognized in <i>Other net income from financial instruments measured at fair value through profit or loss</i>, except interest income on instruments other than derivatives (refer to item 2d in this Note), interest on derivatives designated as hedging instruments in hedges of interest rate risk and forward points on certain short- and long-duration FX contracts acting as economic hedges, which are reported in <i>Net interest income</i>.</p>
	Mandatorily measured at FVTPL – Other	<p>This classification includes financial assets mandatorily measured at FVTPL that are not held for trading, as follows:</p> <ul style="list-style-type: none"> – certain structured loans, certain commercial loans, and receivables from securities financing transactions that are managed on a fair value basis; – loans managed on a fair value basis, including those hedged with credit derivatives; – certain debt securities held as HQLA and managed on a fair value basis; – certain investment fund holdings and assets held to hedge delivery obligations related to cash-settled employee compensation plans; – brokerage receivables, for which contractual cash flows do not meet the SPPI criterion because the aggregate balance is accounted for as a single unit of account, with interest being calculated on the individual components; – auction rate securities, for which contractual cash flows do not meet the SPPI criterion because interest may be reset at rates that contain leverage; – equity instruments; and – assets held under unit-linked investment contracts. 	<p>Changes in the fair value of derivatives that are designated and effective hedging instruments are presented either in the income statement or <i>Other comprehensive income</i>, depending on the type of hedge relationship (refer to item 2j in this Note for more information).</p>

Note 1 Summary of material accounting policies (continued)

Classification, measurement and presentation of financial liabilities

Financial liabilities classification	Significant items included	Measurement and presentation	
Measured at amortized cost	<p>This classification includes:</p> <ul style="list-style-type: none"> – demand and time deposits; – retail savings / deposits; – sweep deposits; – payables from securities financing transactions; – non-structured debt issued; – subordinated debt; – commercial paper and certificates of deposit; and – cash collateral payables on derivative instruments. 	<p>Measured at amortized cost using the effective interest method.</p> <p>When a financial liability at amortized cost is derecognized, the gain or loss is recognized in the income statement.</p> <p>Interest Income generated from client deposits derecognized pursuant to certain deposit sweep programs is presented within <i>Net interest income from financial instruments measured at fair value through profit or loss and other</i>.</p>	
Measured at FVTPL	Held for trading	<p>Financial liabilities held for trading include:</p> <ul style="list-style-type: none"> – all derivatives with a negative replacement value (including certain loan commitments), except those that are designated and effective hedging instruments; and – obligations to deliver financial instruments, such as debt and equity instruments, that UBS has sold to third parties but does not own (short positions). 	<p>Measurement and presentation of financial liabilities classified at FVTPL follow the same principles as for financial assets classified at FVTPL, except that the amount of change in the fair value of a financial liability designated at FVTPL that is attributable to changes in UBS's own credit risk is presented in <i>Other comprehensive income</i> directly within <i>Retained earnings</i> and is never reclassified to the income statement.</p>
	Designated at FVTPL	<p>UBS designates at FVTPL the following financial liabilities:</p> <ul style="list-style-type: none"> – issued hybrid debt instruments that primarily include equity-linked, credit-linked and rates-linked bonds or notes; – issued debt instruments managed on a fair value basis; – certain payables from securities financing transactions; – amounts due under unit-linked investment contracts, the cash flows of which are linked to financial assets measured at FVTPL and eliminate an accounting mismatch; and – brokerage payables, which arise in conjunction with brokerage receivables and are measured at FVTPL to achieve measurement consistency. 	<p>Derivative liabilities (including derivatives that are designated and effective hedging instruments) are generally presented as <i>Derivative financial instruments</i>, except those exchange-traded and OTC-cleared derivatives that are legally settled on a daily basis or economically net settled on a daily basis, which are presented within <i>Cash collateral payables on derivative instruments</i>.</p>

Note 1 Summary of material accounting policies (continued)

c. Loan commitments and financial guarantees

Loan commitments are arrangements to provide credit under defined terms and conditions. Irrevocable loan commitments are classified as: (i) derivative loan commitments measured at fair value through profit or loss; (ii) loan commitments designated at fair value through profit or loss; or (iii) loan commitments not measured at fair value. Financial guarantee contracts are contracts that require UBS to make specified payments to reimburse the holder for an incurred loss because a specified debtor fails to make payments when due in accordance with the terms of a specified debt instrument.

d. Interest income and expense

Interest income and expense are recognized in the income statement based on the effective interest method. When calculating the effective interest rate (the EIR) for financial instruments (other than credit-impaired financial instruments), UBS estimates future cash flows considering all contractual terms of the instrument, but not expected credit losses, with the EIR applied to the gross carrying amount of the financial asset or the amortized cost of a financial liability. However, when a financial asset becomes credit-impaired after initial recognition, interest income is determined by applying the EIR to the amortized cost of the instrument, which represents the gross carrying amount adjusted for any credit loss allowance.

Upfront fees, including fees on loan commitments not measured at fair value where a loan is expected to be issued, and direct costs are included within the initial measurement of a financial instrument measured at amortized cost or FVOCI and recognized over the expected life of the instrument as part of its EIR.

Fees related to loan commitments where no loan is expected to be issued, as well as loan syndication fees where UBS does not retain a portion of the syndicated loan or where UBS does retain a portion of the syndicated loan at the same effective yield for comparable risk as other participants, are included in *Net fee and commission income* and either recognized over the life of the commitment or when syndication occurs.

› **Refer to item 3 in this Note for more information**

Interest income on financial assets, excluding derivatives, is included in interest income when positive and in interest expense when negative. Similarly, interest expense on financial liabilities, excluding derivatives, is included in interest expense, except when interest rates are negative, in which case it is included in interest income.

› **Refer to item 2b in this Note and Note 3 for more information**

e. Derecognition

Financial assets

UBS derecognizes a transferred financial asset, or a portion of a financial asset, if the purchaser has received substantially all the risks and rewards of the asset or a significant part of the risks and rewards combined with a practical ability to sell or pledge the asset.

Where financial assets have been pledged as collateral or in similar arrangements, they are considered to have been transferred if the counterparty has received the contractual rights to the cash flows of the pledged assets, as may be evidenced by, for example, the counterparty's right to sell or repledge the assets. In transfers where control over the financial asset is retained, UBS continues to recognize the asset to the extent of its continuing involvement, determined by the extent to which it is exposed to changes in the value of the transferred asset following the transfer.

› **Refer to Note 22 for more information**

Financial liabilities

UBS derecognizes a financial liability when it is extinguished, i.e., when the obligation specified in the contract is discharged, canceled or expires. When an existing financial liability is exchanged for a new one from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, the original liability is derecognized and a new liability recognized with any difference in the respective carrying amounts recorded in the income statement.

Certain OTC derivative contracts and most exchange-traded futures and option contracts cleared through central clearing counterparties and exchanges are considered to be settled on a daily basis, as the payment or receipt of variation margin on a daily basis represents legal or economic settlement, which results in derecognition of the associated derivatives.

› **Refer to Note 21 for more information**

f. Fair value of financial instruments

UBS accounts for a significant portion of its assets and liabilities at fair value. Fair value is the price on the measurement date that would be received for the sale of an asset or paid to transfer a liability in an orderly transaction between market participants in the principal market, or in the most advantageous market in the absence of a principal market.

› **Refer to Note 20 for more information**

Note 1 Summary of material accounting policies (continued)

Critical accounting estimates and judgments

The use of valuation techniques, modeling assumptions and estimates of unobservable market inputs in the fair valuation of financial instruments requires significant judgment and could affect the amount of gain or loss recorded for a particular position. Valuation techniques that rely more heavily on unobservable inputs and sophisticated models inherently require a higher level of judgment and may require adjustment to reflect factors that market participants would consider in estimating fair value, such as close-out costs, which are presented in Note 20d.

UBS's governance framework over fair value measurement is described in Note 20b, and UBS provides a sensitivity analysis of the estimated effects arising from changing significant unobservable inputs in Level 3 financial instruments to reasonably possible alternative assumptions in Note 20f.

› **Refer to Note 20 for more information**

g. Allowances and provisions for expected credit losses

ECL are recognized for financial assets measured at amortized cost, financial assets measured at FVOCI, fee and lease receivables, financial guarantees, and loan commitments not measured at fair value. ECL are also recognized on the undrawn portion of committed unconditionally revocable credit lines, which include UBS's credit card limits and master credit facilities, as UBS is exposed to credit risk because the borrower has the ability to draw down funds before UBS can take credit risk mitigation actions.

Recognition of expected credit losses

ECL are recognized on the following basis.

- Stage 1 instruments: Maximum 12-month ECL are recognized from initial recognition, reflecting the portion of lifetime cash shortfalls that would result if a default occurs in the 12 months after the reporting date, weighted by the risk of a default occurring.
- Stage 2 instruments: Lifetime ECL are recognized if a significant increase in credit risk (an SICR) is observed subsequent to the instrument's initial recognition, reflecting lifetime cash shortfalls that would result from all possible default events over the expected life of a financial instrument, weighted by the risk of a default occurring. When an SICR is no longer observed, the instrument will move back to stage 1.
- Stage 3 instruments: Lifetime ECL are always recognized for credit-impaired financial instruments, as determined by the occurrence of one or more loss events, by estimating expected cash flows based on a chosen recovery strategy. Credit-impaired exposures may include positions for which no allowance has been recognized, for example because they are expected to be fully recoverable through collateral held.
- Changes in lifetime ECL since initial recognition are also recognized for assets that are purchased or originated credit-impaired (POCI). POCI financial instruments include those that are purchased at a deep discount or newly originated with a defaulted counterparty; they remain a separate category until derecognition.

All or part of a financial asset is written off if it is deemed uncollectible or forgiven. Write-offs reduce the principal amount of a claim and are charged against related allowances for credit losses. Recoveries, in part or in full, of amounts previously written off are generally credited to *Credit loss expense / (release)*.

ECL are recognized in the income statement in *Credit loss expense / (release)*. A corresponding ECL allowance is reported as a decrease in the carrying amount of financial assets measured at amortized cost on the balance sheet. For financial assets that are measured at FVOCI, the carrying amount is not reduced, but an accumulated amount is recognized in *Other comprehensive income*. For off-balance sheet financial instruments and other credit lines, provisions for ECL are presented in *Provisions*.

Default and credit impairment

UBS applies a single definition of default for credit risk management purposes, regulatory reporting and ECL, with a counterparty classified as defaulted based on quantitative and qualitative criteria.

› **Refer to "Credit policies for distressed assets" in the "Risk management and control" section of this report for more information**

Measurement of expected credit losses

IFRS 9 ECL reflect an unbiased, probability-weighted estimate based on loss expectations resulting from default events. The method used to calculate ECL applies the following principal factors: probability of default (PD), loss given default (LGD) and exposure at default (EAD). Parameters are generally determined on an individual financial asset level. Based on the materiality of the portfolio, for credit card exposures and personal account overdrafts in Switzerland, a portfolio approach is applied that derives an average PD and LGD for the entire portfolio. PDs and LGDs used in the ECL calculation are point-in-time (PIT)-based for key portfolios and consider both current conditions and expected cyclical changes. For material portfolios, PDs and LGDs are determined for different scenarios, whereas EAD projections are treated as scenario independent.

For the purpose of determining the ECL-relevant parameters, UBS leverages its Basel III advanced internal ratings-based (A-IRB) models that are also used in determining expected loss (EL) and risk-weighted assets under the Basel III framework and Pillar 2 stress loss models. Adjustments have been made to these models and IFRS 9-related models have been developed that consider the complexity, structure and risk profile of relevant portfolios and take account of the fact that PDs and LGDs used in the ECL calculation are PIT-based, as opposed to the corresponding Basel III through-the-cycle (TTC) parameters. All models that are relevant for measuring expected credit losses are subject to UBS's model validation and oversight processes.

Note 1 Summary of material accounting policies (continued)

Probability of default: PD represents the probability of a default over a specified time period. A 12-month PD represents the probability of default determined for the next 12 months and a lifetime PD represents the probability of default over the remaining lifetime of the instrument. PIT PDs are derived from TTC PDs and scenario forecasts. The modeling is region, industry and client segment specific and considers both macroeconomic scenario dependencies and client-idiosyncratic information.

Exposure at default: EAD represents an estimate of the exposure to credit risk at the time of a potential default occurring, considering expected repayments, interest payments and accruals, discounted at the EIR. Future drawdowns on facilities are considered through a credit conversion factor (a CCF) that is reflective of historical drawdown and default patterns and the characteristics of the respective portfolios.

Loss given default: LGD represents an estimate of the loss at the time of a potential default occurring, taking into account expected future cash flows from collateral and other credit enhancements, or expected payouts from bankruptcy proceedings for unsecured claims and, where applicable, time to realization of collateral and the seniority of claims. LGD is commonly expressed as a percentage of EAD.

Estimation of expected credit losses

Number of scenarios and estimation of scenario weights

Determination of probability-weighted ECL requires evaluating a range of diverse and relevant future economic conditions, especially with a view to modeling the non-linear effect of assumptions about macroeconomic factors on the estimate. To accommodate this requirement, UBS uses different economic scenarios in the ECL calculation. Each scenario is represented by a specific scenario narrative, which is relevant considering the exposure of key portfolios to economic risks, and for which a set of consistent macroeconomic variables is determined. The estimation of the appropriate weights for these scenarios is predominantly judgment-based. The assessment is based on a holistic review of the prevailing economic or political conditions, which may exhibit different levels of uncertainty. It takes into account the impact of changes in the nature and severity of the underlying scenario narratives and the projected economic variables.

The determined weights constitute the probabilities that the respective set of macroeconomic conditions will occur and not that the chosen particular narratives with the related macroeconomic variables will materialize.

Macroeconomic and other factors

The range of macroeconomic, market and other factors that is modeled as part of the scenario determination is wide, and historical information is used to support the identification of the key factors. As the forecast horizon increases, the availability of information decreases, requiring an increase in judgment. For cycle-sensitive PD and LGD determination purposes, UBS projects the relevant economic factors for a period of three years before reverting, over a specified period, to cycle-neutral PD and LGD for longer-term projections.

Factors relevant for ECL calculation vary by type of exposure. Regional and client-segment characteristics are generally taken into account, with specific focus on Switzerland and the US, considering UBS's key ECL-relevant portfolios. For UBS, the following forward-looking macroeconomic variables represent the most relevant factors for ECL calculation:

- GDP growth rates, given their significant effect on borrowers' performance;
- unemployment rates, given their significant effect on private clients' ability to meet contractual obligations;
- house price indices, given their significant effect on mortgage collateral valuations;
- interest rates, given their significant effect on counterparties' abilities to service debt;
- consumer price indices, given their overall relevance for companies' performance, private clients' purchasing power and economic stability; and
- equity indices, given that they are an important factor in our corporate rating tools.

Scenario generation, review process and governance

A team of economists, which is part of Group Risk Control, develop the forward-looking macroeconomic assumptions with involvement from a broad range of experts.

The scenarios, their weight and the key macroeconomic and other factors are subject to a critical assessment by the IFRS 9 Scenario Sounding Sessions and ECL Management Forum, which include senior management from Group Risk and Group Finance. Important aspects for the review include whether there may be particular credit risk concerns that may not be capable of being addressed systematically and require post-model adjustments for stage allocation and ECL allowance.

The Group Model Governance Committee (the GMGC), as the highest authority under UBS's model governance framework, ratifies the decisions taken by the ECL Management Forum.

› **Refer to Note 19 for more information**

ECL measurement period

The period for which lifetime ECL are determined is based on the maximum contractual period that UBS is exposed to credit risk, taking into account contractual extension, termination and prepayment options. For irrevocable loan commitments and financial guarantee contracts, the measurement period represents the maximum contractual period for which UBS has an obligation to extend credit.

Note 1 Summary of material accounting policies (continued)

Additionally, some financial instruments include both an on-demand loan and a revocable undrawn commitment, where the contractual cancellation right does not limit UBS's exposure to credit risk to the contractual notice period, as the client has the ability to draw down funds before UBS can take risk-mitigating actions. In such cases UBS is required to estimate the period over which it is exposed to credit risk. This applies to UBS's credit card limits, which do not have a defined contractual maturity date, are callable on demand and where the drawn and undrawn components are managed as one exposure. The exposure arising from UBS's credit card limits is not significant and is managed at a portfolio level, with credit actions triggered when balances are past due. An ECL measurement period of seven years is applied for credit card limits, capped at 12 months for stage 1 balances, as a proxy for the period that UBS is exposed to credit risk.

Customary master credit agreements in the Swiss corporate market also include on-demand loans and revocable undrawn commitments. For smaller commercial facilities, a risk-based monitoring (RbM) approach is in place that highlights negative trends as risk events, at an individual facility level, based on a combination of continuously updated risk indicators. The risk events trigger additional credit reviews by a risk officer, enabling informed credit decisions to be taken. Larger corporate facilities are not subject to RbM, but are reviewed at least annually through a formal credit review. UBS has assessed these credit risk management practices and considers both the RbM approach and formal credit reviews as substantive credit reviews resulting in a re-origination of the given facility. Following this, a 12-month measurement period from the reporting date is used for both types of facilities as an appropriate proxy of the period over which UBS is exposed to credit risk, with 12 months also used as a look-back period for assessing SICR, always from the respective reporting date.

Significant increase in credit risk

Financial instruments subject to ECL are monitored on an ongoing basis. To determine whether the recognition of a maximum 12-month ECL continues to be appropriate, an assessment is made as to whether an SICR has occurred since initial recognition of the financial instrument, applying both quantitative and qualitative factors.

Primarily, UBS assesses changes in an instrument's risk of default on a quantitative basis by comparing the annualized forward-looking and scenario-weighted lifetime PD of an instrument determined at two different dates:

- at the reporting date; and
- at inception of the instrument.

If, based on UBS's quantitative modeling, an increase exceeds a set threshold, an SICR is deemed to have occurred and the instrument is transferred to stage 2 with lifetime ECL recognized.

The threshold applied varies depending on the original credit quality of the borrower, with a higher SICR threshold set for those instruments with a low PD at inception. The SICR assessment based on PD changes is made at an individual financial asset level. A high-level overview of the SICR trigger, which is a multiple of the annualized remaining lifetime PIT PD expressed in rating downgrades, is provided in the "SICR thresholds" table below. The actual SICR thresholds applied are defined on a more granular level by interpolating between the values shown in the table.

SICR thresholds Internal rating at origination of the instrument	Rating downgrades / SICR trigger
0–3	3
4–8	2
9–13	1

› **Refer to the "Risk management and control" section of this report for more details about UBS's internal grading system**

Irrespective of the SICR assessment based on default probabilities, credit risk is generally deemed to have significantly increased for an instrument if the contractual payments are more than 30 days past due. For certain less material portfolios, specifically the Swiss credit card portfolio, the 30-day past due criterion is used as the primary indicator of an SICR. Where instruments are transferred to stage 2 due to the 30-day past due criterion, a minimum period of six months is applied before a transfer back to stage 1 can be triggered. For instruments in Personal & Corporate Banking and Global Wealth Management Region Switzerland that are between 90 and 180 days past due but have not been reclassified to stage 3, a one-year period is applied before a transfer back to stage 1 can be triggered.

Additionally, based on individual counterparty-specific indicators, external market indicators of credit risk or general economic conditions, counterparties may be moved to a watch list, which is used as a secondary qualitative indicator for an SICR. Exception management is further applied, allowing for individual and collective adjustments on exposures sharing the same credit risk characteristics to take account of specific situations that are not otherwise fully reflected.

In general, the overall SICR determination process does not apply to Lombard loans, securities financing transactions and certain other asset-based lending transactions, because of the risk management practices adopted, including daily monitoring processes with strict margining. If margin calls are not satisfied, a position is closed out and classified as a stage 3 position. In exceptional cases, an individual adjustment and a transfer into stage 2 may be

made to take account of specific facts.

Note 1 Summary of material accounting policies (continued)

Credit risk officers are responsible for the identification of an SICR, which for accounting purposes is in some respects different from internal credit risk management processes. This difference mainly arises because ECL accounting requirements are instrument-specific, such that a borrower can have multiple exposures allocated to different stages, and maturing loans in stage 2 will migrate to stage 1 upon renewal irrespective of the actual credit risk at that time. Under a risk-based approach, a holistic counterparty credit assessment and the absolute level of risk at any given date will determine what risk-mitigating actions may be warranted.

› **Refer to the “Risk management and control” section of this report for more information**

Critical accounting estimates and judgments

The calculation of ECL requires management to apply significant judgment and make estimates and assumptions that can result in significant changes to the timing and amount of ECL recognized.

Determination of a significant increase in credit risk

IFRS 9 does not include a definition of what constitutes an SICR, with UBS’s assessment considering qualitative and quantitative criteria. An IFRS 9 ECL Management Forum has been established to review and challenge the SICR results.

Scenarios, scenario weights and macroeconomic variables

ECL reflect an unbiased and probability-weighted amount, which UBS determines by evaluating a range of possible outcomes. Management selects forward-looking scenarios that include relevant macroeconomic variables and management’s assumptions around future economic conditions. IFRS 9 Scenario Sounding Sessions, in addition to the IFRS 9 ECL Management Forum, are in place to derive, review and challenge the scenario selection and weights, and to determine whether any additional post-model adjustments are required that may significantly affect ECL.

ECL measurement period

Lifetime ECL are generally determined based upon the contractual maturity of the transaction, which significantly affects ECL. For credit card limits and Swiss callable master credit facilities, judgment is required, as UBS must determine the period over which it is exposed to credit risk. A seven-year period is applied for credit card limits, capped at 12 months for stage 1 positions, and a 12-month period applied for master credit facilities.

Modeling and post-model adjustments

A number of complex models have been developed or modified to calculate ECL, with additional post-model adjustments required which may significantly affect ECL. The models are governed by UBS’s model validation controls and approved by the GMGC. The post-model adjustments are approved by the ECL Management Forum and endorsed by the GMGC.

A sensitivity analysis covering key macroeconomic variables, scenario weights and SICR trigger points on ECL measurement is provided in Note 19f.

› **Refer to Note 19 for more information**

h. Restructured and modified financial assets

When payment default is expected, or where default has already occurred, UBS may grant concessions to borrowers in financial difficulties that it would not consider in the normal course of its business, such as preferential interest rates, extension of maturity, modifying the schedule of repayments, debt / equity swap, subordination, etc.

› **Refer to the “Risk management and control” section of this report for more information**

Modifications result in an alteration of future contractual cash flows and can occur within UBS’s normal risk tolerance or as part of a credit restructuring where a counterparty is in financial difficulties. The restructuring or modification of a financial asset could lead to a substantial change in the terms and conditions, resulting in the original financial asset being derecognized and a new financial asset being recognized. Where the modification does not result in a derecognition, any difference between the modified contractual cash flows discounted at the original EIR and the existing gross carrying amount of the given financial asset is recognized in the income statement as a modification gain or loss.

i. Offsetting

UBS presents financial assets and liabilities on its balance sheet net if (i) it has a legally enforceable right to set off the recognized amounts and (ii) it intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. Netted positions include, for example, certain derivatives and repurchase and reverse repurchase transactions with various counterparties, exchanges and clearing houses.

In assessing whether UBS intends to either settle on a net basis, or to realize the asset and settle the liability simultaneously, emphasis is placed on the effectiveness of operational settlement mechanics in eliminating substantially all credit and liquidity exposure between the counterparties. This condition precludes offsetting on the balance sheet for substantial amounts of UBS's financial assets and liabilities, even though they may be subject to enforceable netting arrangements. Repurchase arrangements and securities financing transactions are presented net only to the extent that the settlement mechanism eliminates, or results in insignificant, credit and liquidity risk, and processes the receivables and payables in a single settlement process or cycle.

› **Refer to Note 21 for more information**

Note 1 Summary of material accounting policies (continued)

j. Hedge accounting

The Group applies hedge accounting requirements of IFRS 9 where the criteria for documentation and hedge effectiveness are met. If a hedge relationship no longer meets the criteria for hedge accounting, hedge accounting is discontinued. Voluntary discontinuation of hedge accounting is not permitted under IFRS 9.

Fair value hedges of interest rate risk related to debt instruments and loan assets

The fair value change of the hedged item attributable to a hedged risk is reflected as an adjustment to the carrying amount of the hedged item and recognized in the income statement along with the change in the fair value of the hedging instrument.

Fair value hedges of FX risk related to debt instruments

The fair value change of the hedged item attributable to the hedged risk is reflected in the measurement of the hedged item and recognized in the income statement along with the change in the fair value of the hedging instrument. The foreign currency basis spread of cross-currency swaps designated as hedging derivatives is excluded from the designation and accounted for as a cost of hedging with amounts deferred in *Other comprehensive income* within *Equity*. These amounts are released to the income statement over the term of the hedged item.

Discontinuation of fair value hedges

Discontinuations for reasons other than derecognition of the hedged item result in an adjustment to the carrying amount, which is amortized to the income statement over the remaining life of the hedged item using the effective interest method. If the hedged item is derecognized, the unamortized fair value adjustment or deferred cost of hedging amount is recognized immediately in the income statement as part of any derecognition gain or loss.

Cash flow hedges of forecast transactions

Fair value gains or losses associated with the effective portion of derivatives designated as cash flow hedges for cash flow repricing risk are recognized initially in *Other comprehensive income* within *Equity* and reclassified to *Interest income from financial instruments measured at amortized cost and fair value through other comprehensive income* or *Interest expense from financial instruments measured at amortized cost* in the periods when the hedged forecast cash flows affect profit or loss, including discontinued hedges for which forecast cash flows are expected to occur. If the forecast transactions are no longer expected to occur, the deferred gains or losses are immediately reclassified to the income statement.

Hedges of net investments in foreign operations

Gains or losses on the hedging instrument relating to the effective portion of a hedge are recognized directly in *Other comprehensive income* within *Equity*, while any gains or losses relating to the ineffective and / or undesignated portion (for example, the interest element of a forward contract) are recognized in the income statement. Upon disposal or partial disposal of the foreign operation, the cumulative value of any such gains or losses recognized in *Equity* associated with the entity is reclassified to *Other income*.

Interest Rate Benchmark Reform

UBS continues hedge accounting during the period of uncertainty before existing interest rate benchmarks are replaced with alternative risk-free interest rates. During this period, UBS assumes that the current benchmark rates will continue to exist, such that forecast transactions are considered highly probable and hedge relationships remain, with little or no consequential impact on the financial statements. Upon replacement of existing interest rate benchmarks by alternative risk-free interest rates, UBS applies the requirements of *Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (Interest Rate Benchmark Reform – Phase 2)*, where applicable.

› **Refer to Note 25 for more information**

3) Fee and commission income and expenses

UBS earns fee income from the diverse range of services it provides to its clients. Fee income can be divided into two broad categories: fees earned from services that are provided over a certain period of time, such as management of clients' assets, custody services and certain advisory services; and fees earned from point-in-time services, such as underwriting fees, deal-contingent merger and acquisitions fees, and brokerage fees (e.g., securities and derivatives execution and clearing). UBS recognizes fees earned from PIT services when it has fully provided the service to the client. Where the contract requires services to be provided over time, income is recognized on a systematic basis over the life of the agreement.

Consideration received is allocated to the separately identifiable performance obligations in a contract. Owing to the nature of UBS's business, contracts that include multiple performance obligations are typically those that are considered to include a series of similar performance obligations fulfilled over time with the same pattern of transfer to the client, e.g., management of client assets and custodial services. As a consequence, UBS is not required to apply significant judgment in allocating the consideration received across the various performance obligations.

Note 1 Summary of material accounting policies (continued)

PIT services are generally for a fixed price or dependent on deal size, e.g., a fixed number of basis points of trade size, where the amount of revenue is known when the performance obligation is met. Fixed-over-time fees are recognized on a straight-line basis over the performance period. Custodial and asset management fees can be variable through reference to the size of the customer portfolio. However, they are generally billed on a monthly or quarterly basis once the customer's portfolio size is known or known with near certainty and therefore also recognized ratably over the performance period. UBS does not recognize performance fees related to management of clients' assets or fees related to contingencies beyond UBS's control until such uncertainties are resolved.

UBS's fees are generally earned from short-term contracts. As a result, UBS's contracts do not include a financing component or result in the recognition of significant receivables or prepayment assets. Furthermore, due to the short-term nature of such contracts, UBS has not capitalized any material costs to obtain or fulfill a contract or generated any significant contract assets or liabilities.

UBS presents expenses primarily in line with their nature in the income statement, differentiating between expenses that are directly attributable to the satisfaction of specific performance obligations associated with the generation of revenues, which are generally presented within *Total revenues* as *Fee and commission expense*, and those that are related to personnel, general and administrative expenses, which are presented within *Operating expenses*. For derivatives execution and clearing services (where UBS acts as an agent), UBS only records its specific fees in the income statement, with fees payable to other parties not recognized as an expense but instead directly offset against the associated income collected from the given client.

› **Refer to Note 4 for more information, including the disaggregation of revenues**

4) Share-based and other deferred compensation plans

UBS recognizes expenses for deferred compensation awards over the period that the employee is required to provide service to become entitled to the award. Where the service period is shortened, for example in the case of employees affected by restructuring programs or mutually agreed termination provisions, recognition of such expense is accelerated to the termination date. Where no future service is required, such as for employees who are eligible for retirement or who have met certain age and length-of-service criteria, the services are presumed to have been received and compensation expense is recognized over the performance year or, in the case of off-cycle awards, immediately on the grant date.

Share-based compensation plans

Share-based compensation expense is measured by reference to the fair value of the equity instruments on the date of grant, taking into account the terms and conditions inherent in the award, including, where relevant, dividend rights, transfer restrictions in effect beyond the vesting date, market conditions, and non-vesting conditions.

For equity-settled awards, fair value is not remeasured unless the terms of the award are modified such that there is an incremental increase in value. Expenses are recognized, on a per-tranche basis, over the service period based on an estimate of the number of instruments expected to vest and are adjusted to reflect the actual outcomes of service or performance conditions.

For equity-settled awards, forfeiture events resulting from a breach of a non-vesting condition (i.e., one that does not relate to a service or performance condition) do not result in any adjustment to the share-based compensation expense. For cash-settled share-based awards, fair value is remeasured at each reporting date, so that the cumulative expense recognized equals the cash distributed.

Other deferred compensation plans

Compensation expense for other deferred compensation plans is recognized on a per-tranche or straight-line basis, depending on the nature of the plan. The amount recognized is measured based on the present value of the amount expected to be paid under the plan and is remeasured at each reporting date, so that the cumulative expense recognized equals the cash or the fair value of respective financial instruments distributed.

› **Refer to Note 27 for more information**

Note 1 Summary of material accounting policies (continued)

5) Post-employment benefit plans

Defined benefit plans

Defined benefit plans specify an amount of benefit that an employee will receive, which usually depends on one or more factors, such as age, years of service and compensation. The defined benefit liability recognized in the balance sheet is the present value of the defined benefit obligation, measured using the projected unit credit method, less the fair value of the plan's assets at the balance sheet date, with changes resulting from remeasurements recorded immediately in *Other comprehensive income*. If the fair value of the plan's assets is higher than the present value of the defined benefit obligation, the recognition of the resulting net asset is limited to the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan. Calculation of the net defined benefit obligation or asset takes into account the specific features of each plan, including risk sharing between employee and employer, and is calculated periodically by independent qualified actuaries.

Critical accounting estimates and judgments

The net defined benefit liability or asset at the balance sheet date and the related personnel expense depend on the expected future benefits to be provided, determined using a number of economic and demographic assumptions. A range of assumptions could be applied, and different assumptions could significantly alter the defined benefit liability or asset and pension expense recognized. The most significant assumptions include life expectancy, discount rate, expected salary increases, pension increases and interest credits on retirement savings account balances. Sensitivity analysis for reasonable possible movements in each significant assumption for UBS's post-employment obligations is provided in Note 26.

› **Refer to Note 26 for more information**

Defined contribution plans

A defined contribution plan pays fixed contributions into a separate entity from which post-employment and other benefits are paid. UBS has no legal or constructive obligation to pay further amounts if the plan does not hold sufficient assets to pay employees the benefits relating to employee service in the current and prior periods. Compensation expense is recognized when the employees have rendered services in exchange for contributions. This is generally in the year of contribution. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

6) Income taxes

UBS is subject to the income tax laws of Switzerland and those of the non-Swiss jurisdictions in which UBS has business operations.

The Group's provision for income taxes is composed of current and deferred taxes. Current income taxes represent taxes to be paid or refunded for the current period or previous periods.

Deferred tax assets (DTAs) and deferred tax liabilities (DTLs) are recognized for temporary differences between the carrying amounts and tax bases of assets and liabilities that will result in deductible or taxable amounts, respectively in future periods. DTAs may also arise from other sources, including unused tax losses and unused tax credits. DTAs and DTLs are measured using the applicable tax rates and laws that have been enacted or substantively enacted by the end of the reporting period and that will be in effect when such differences are expected to reverse.

DTAs are recognized only to the extent it is probable that sufficient taxable profits will be available against which these differences can be used. When an entity or tax group has a history of recent losses, DTAs are only recognized to the extent there are sufficient taxable temporary differences or there is convincing other evidence that sufficient taxable profit will be available against which the unused tax losses can be utilized.

Deferred and current tax assets and liabilities are offset when: (i) they arise in the same tax reporting group; (ii) they relate to the same tax authority; (iii) the legal right to offset exists; and (iv) with respect to current taxes they are intended to be settled net or realized simultaneously.

Current and deferred taxes are recognized as income tax benefit or expense in the income statement, except for current and deferred taxes recognized in relation to: (i) the acquisition of a subsidiary (for which such amounts would affect the amount of goodwill arising from the acquisition); (ii) gains and losses on the sale of treasury shares (for which the tax effects are recognized directly in *Equity*); (iii) unrealized gains or losses on financial instruments that are classified at FVOCI; (iv) changes in fair value of derivative instruments designated as cash flow hedges; (v) remeasurements of defined benefit plans; or (vi) certain foreign currency translations of foreign operations. Amounts relating to points (iii) through (vi) above are recognized in *Other comprehensive income* within *Equity*.

UBS reflects the potential effect of uncertain tax positions for which acceptance by the relevant tax authority is not considered probable by adjusting current or deferred taxes, as applicable, using either the most likely amount or expected value methods, depending on which method is deemed a better predictor of the basis on which, and extent to which, the uncertainty will be resolved.

Note 1 Summary of material accounting policies (continued)

Critical accounting estimates and judgments

Tax laws are complex, and judgment and interpretations about the application of such laws are required when accounting for income taxes. UBS considers the performance of its businesses and the accuracy of historical forecasts and other factors when evaluating the recoverability of its DTAs, including the remaining tax loss carry-forward period, and its assessment of expected future taxable profits in the forecast period used for recognizing DTAs. Estimating future profitability and business plan forecasts is inherently subjective and is particularly sensitive to future economic, market and other conditions.

Forecasts are reviewed annually, but adjustments may be made at other times, if required. If recent losses have been incurred, convincing evidence is required to prove there is sufficient future profitability given that the value of UBS's DTAs may be affected, with effects primarily recognized through the income statement.

In addition, judgment is required to assess the expected value of uncertain tax positions and the related probabilities, including interpretation of tax laws, the resolution of any income tax-related appeals and litigation.

› **Refer to Note 8 for more information**

7) Property, equipment and software

Property, equipment and software is measured at cost less accumulated depreciation and impairment losses. Software development costs are capitalized only when the costs can be measured reliably and it is probable that future economic benefits will arise. Depreciation of property, equipment and software begins when they are available for use and is calculated on a straight line basis over an asset's estimated useful life.

Property, equipment and software are generally tested for impairment at the appropriate cash-generating unit level, alongside goodwill and intangible assets as described in item 8 in this Note. An impairment charge is recognized for such assets if the recoverable amount is below its carrying amount. The recoverable amounts of such assets, other than property that has a market price, are generally determined using a replacement cost approach that reflects the amount that would be currently required by a market participant to replace the service capacity of the asset. If such assets are no longer used, they are tested individually for impairment.

› **Refer to Note 11 for more information**

8) Goodwill

Goodwill represents the excess of the consideration over the fair value of identifiable assets, liabilities and contingent liabilities acquired that arises in a business combination. Goodwill is not amortized, but is assessed for impairment at the end of each reporting period, or when indicators of impairment exist. UBS tests goodwill for impairment annually, irrespective of whether there is any indication of impairment.

An impairment charge is recognized in the income statement if the carrying amount exceeds the recoverable amount of a cash-generating unit.

Critical accounting estimates and judgments

UBS's methodology for goodwill impairment testing is based on a model that is most sensitive to the following key assumptions: (i) forecasts of earnings available to shareholders in years one to three; (ii) changes in the discount rates; and (iii) changes in the long-term growth rate.

Earnings available to shareholders are estimated on the basis of forecast results, which are part of the business plan approved by the BoD. The discount rates and growth rates are determined using external information, and also considering inputs from both internal and external analysts and the view of management.

The key assumptions used to determine the recoverable amounts of each cash-generating unit are tested for sensitivity by applying reasonably possible changes to those assumptions.

› **Refer to Notes 2 and 12 for more information**

9) Provisions and contingent liabilities

Provisions are liabilities of uncertain timing or amount, and are generally recognized in accordance with IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*, when: (i) UBS has a present obligation as a result of a past event; (ii) it is probable that an outflow of resources will be required to settle the obligation; and (iii) a reliable estimate of the amount of the obligation can be made.

The majority of UBS's provisions relate to litigation, regulatory and similar matters, restructuring, and employee benefits. Restructuring provisions are generally recognized as a consequence of management agreeing to materially change the scope of the business or the manner in which it is conducted,

including changes in management structures. Provisions for employee benefits relate mainly to service anniversaries and sabbatical leave, and are recognized in accordance with measurement principles set out in item 4 in this Note. In addition, UBS presents expected credit loss allowances within *Provisions* if they relate to a loan commitment, financial guarantee contract or a revolving revocable credit line.

IAS 37 provisions are measured considering the best estimate of the consideration required to settle the present obligation at the balance sheet date.

When conditions required to recognize a provision are not met, a contingent liability is disclosed, unless the likelihood of an outflow of resources is remote. Contingent liabilities are also disclosed for possible obligations that arise from past events, the existence of which will be confirmed only by uncertain future events not wholly within the control of UBS.

Note 1 Summary of material accounting policies (continued)

Critical accounting estimates and judgments

Recognition of provisions often involves significant judgment in assessing the existence of an obligation that results from past events and in estimating the probability, timing and amount of any outflows of resources. This is particularly the case for litigation, regulatory and similar matters, which, due to their nature, are subject to many uncertainties, making their outcome difficult to predict.

The amount of any provision recognized is sensitive to the assumptions used and there could be a wide range of possible outcomes for any particular matter.

Management regularly reviews all the available information regarding such matters, including legal advice, to assess whether the recognition criteria for provisions have been satisfied and to determine the timing and amount of any potential outflows.

› **Refer to Note 17 for more information**

10) Foreign currency translation

Transactions denominated in a foreign currency are translated into the functional currency of the reporting entity at the spot exchange rate on the date of the transaction. At the balance sheet date, all monetary assets, including those at FVOCI, and monetary liabilities denominated in foreign currency are translated into the functional currency using the closing exchange rate. Translation differences are reported in *Other net income from financial instruments measured at fair value through profit or loss*.

Non-monetary items measured at historical cost are translated at the exchange rate on the date of the transaction.

Upon consolidation, assets and liabilities of foreign operations are translated into US dollars, UBS's presentation currency, at the closing exchange rate on the balance sheet date, and income and expense items and other comprehensive income are translated at the average rate for the period. The resulting foreign currency translation differences are recognized in *Equity* and reclassified to the income statement when UBS disposes of, partially or in its entirety, the foreign operation and UBS no longer controls the foreign operation.

Share capital issued, share premium and treasury shares held are translated at the historic average rate, with the difference between the historic average rate and the spot rate realized upon repayment of share capital or disposal of treasury shares reported as *Share premium*. Cumulative amounts recognized in *Other comprehensive income* in respect of cash flow hedges and financial assets measured at FVOCI are translated at the closing exchange rate as of the balance sheet dates, with any translation effects adjusted through *Retained earnings*.

› **Refer to Note 32 for more information**

11) Equity, treasury shares and contracts on UBS Group AG shares

Proceeds from the issuance of shares are recognized in *Share capital* for the nominal value, with the balance presented in *Share premium*.

UBS Group AG shares held (treasury shares)

UBS Group AG shares held by the Group, including those purchased as part of market-making activities, are presented in *Equity* as *Treasury shares* at their acquisition cost and are deducted from *Equity* until they are canceled or reissued. The difference between the proceeds from sales of treasury shares and their weighted average cost (net of tax, if any) is reported as *Share premium*.

Contracts on UBS Group AG shares

Contracts involving UBS Group AG shares that require net cash settlement, or provide the counterparty or UBS with a settlement option that includes a choice of settling net in cash, are classified as derivatives held for trading.

Note 1 Summary of material accounting policies (continued)

b) Changes in accounting policies, comparability and other adjustments

Changes to the presentation of the financial statements

During 2022, UBS made several changes to simplify the presentation of the income statement alongside other primary financial statements and disclosure notes, and to align them with management information. In particular, *Total operating income* has been renamed *Total revenues* and excludes *Credit loss expense / (release)*, which is now separately presented below *Total revenues*.

Reclassification of a portfolio from *Financial assets measured at fair value through other comprehensive income* to *Other financial assets measured at amortized cost*

Effective from 1 April 2022, UBS has reclassified a portfolio of financial assets from *Financial assets measured at fair value through other comprehensive income* with a fair value of USD 6.9bn (the Portfolio) to *Other financial assets measured at amortized cost*, in line with the principles in IFRS 9, *Financial Instruments*, which require a reclassification when an entity changes its business model for managing financial assets.

The Portfolio's cumulative fair value losses of USD 449m pre-tax and USD 333m post-tax, previously recognized in *Other comprehensive income*, have been removed from equity and adjusted against the value of the assets on the reclassification date, so that the Portfolio is measured as if the assets had always been classified at amortized cost, with a value of USD 7.4bn as on 1 April 2022. The reclassification had no effect on the income statement.

The reclassified Portfolio is made up of high-quality liquid assets, primarily US government treasuries and US government agency mortgage-backed securities, held and separately managed by UBS Bank USA (BUSA).

The accounting reclassification has arisen as a direct result of the transformation of UBS's Global Wealth Management Americas business, which has significantly impacted BUSA. This includes initiatives approved by the Group Executive Board to significantly grow and extend the business, as disclosed on 1 February 2022 during UBS's fourth quarter 2021 earnings presentation. Over the two years preceding the reclassification date, BUSA's deposit base grew by more than 100% generating substantial cash balances, with a number of new products being launched, including new deposit types that are longer in duration, additional lending and a broader range of customer segments targeted.

Following the commencement of these activities and the announcement made in the first quarter of 2022, the Portfolio is no longer held in a business model to collect the contractual cash flows and sell the assets, but is instead solely held to collect the contractual cash flows until the assets mature, requiring a reclassification of the Portfolio in line with IFRS 9 with effect from 1 April 2022.

The fair value of the Portfolio as on 31 December 2022 was USD 5.8bn. A pre-tax fair value loss of USD 981m would have been recognized in *Other comprehensive income* during 2022 if the Portfolio had not been reclassified.

- › **Refer to the Statement of changes in equity and Note 20 for more information about the effects from the reclassification of the Portfolio**

Accounting for obligations to safeguard crypto-assets an entity holds for platform users (SAB 121)

In March 2022, the US Security and Exchange Commission (the SEC) issued Staff Accounting Bulletin (SAB) 121, "Accounting for obligations to safeguard crypto-assets an entity holds for platform users." SAB 121 adds interpretive guidance requiring SEC registrants, including foreign private issuers that apply IFRS, to recognize a liability on their balance sheets to reflect the obligation to safeguard any digital asset that is issued or transferred using distributed ledger or blockchain technology and held for their platform users, along with a corresponding asset. The guidance is effective for UBS for annual reporting from 2022 onwards. Amounts that would be recognized as liabilities, with corresponding assets, under this guidance are not material to UBS.

c) International Financial Reporting Standards and Interpretations to be adopted in 2023 and later and other changes

IFRS 17, *Insurance Contracts*

In May 2017, the IASB issued IFRS 17, *Insurance Contracts*, which sets out the accounting requirements for contractual rights and obligations that arise from insurance contracts issued and reinsurance contracts held. IFRS 17 is effective from 1 January 2023. Adoption on 1 January 2023 will have no effect on the Group's financial statements. UBS does not provide insurance services in any market.

Other amendments to IFRS

The IASB has issued a number of minor amendments to IFRS, effective from 1 January 2023 and in later years. These amendments are not expected to have a significant effect on the Group when they are adopted.

Note 2a Segment reporting

UBS's businesses are organized globally into four business divisions: Global Wealth Management, Personal & Corporate Banking, Asset Management and the Investment Bank. All four business divisions are supported by Group Functions and qualify as reportable segments for the purpose of segment reporting. Together with Group Functions, the four business divisions reflect the management structure of the Group.

- **Global Wealth Management** provides financial services, advice and solutions to private wealth clients. Its offering ranges from investment management to estate planning and corporate finance advice, in addition to specific wealth management and banking products and services.
- **Personal & Corporate Banking** serves its private, corporate, and institutional clients' needs, from banking to retirement, financing, investments and strategic transactions, in Switzerland, through its branch network and digital channels.
- **Asset Management** is a global, large-scale and diversified asset manager. It offers investment capabilities and styles across all major traditional and alternative asset classes, as well as advisory support to institutions, wholesale intermediaries and wealth management clients.
- The **Investment Bank** provides a range of services to institutional, corporate and wealth management clients globally, to help them raise capital, grow their businesses, invest and manage risks. Its offering includes research, advisory services, facilitating clients raising debt and equity from the public and private markets and capital markets, cash and derivatives trading across equities and fixed income, and financing.
- **Group Functions** is made up of the following major areas: Group Services (which consists of Chief Digital and Information Office, Communications & Branding, Compliance, Finance, Group Sustainability and Impact, Human Resources, Group Legal, Regulatory & Governance, and Risk Control), Group Treasury and Non-core and Legacy Portfolio.

Financial information about the four business divisions and Group Functions is presented separately in internal management reports to the Group Executive Board (the GEB), which is considered the "chief operating decision maker" pursuant to IFRS 8, *Operating Segments*.

UBS's internal accounting policies, which include management accounting policies and service level agreements, determine the revenues and expenses directly attributable to each reportable segment. Transactions between the reportable segments are carried out at internally agreed rates and are reflected in the operating results of the reportable segments. Revenue-sharing agreements are used to allocate external client revenues to reportable segments where several reportable segments are involved in the value creation chain. Total intersegment revenues for the Group are immaterial, as the majority of the revenues are allocated across the segments by means of revenue-sharing agreements. Interest income earned from managing UBS's consolidated equity is allocated to the reportable segments based on average attributed equity and currency composition. Assets and liabilities of the reportable segments are funded through and invested with Group Functions, and the net interest margin is reflected in the results of each reportable segment.

Segment assets are based on a third-party view and do not include intercompany balances. This view is in line with internal reporting to the GEB. If one operating segment is involved in an external transaction together with another operating segment or Group Functions, additional criteria are considered to determine the segment that will report the associated assets. This will include a consideration of which segment's business needs are being addressed by the transaction and which segment is providing the funding and / or resources. Allocation of liabilities follows the same principles.

Non-current assets disclosed for segment reporting purposes represent assets that are expected to be recovered more than 12 months after the reporting date, excluding financial instruments, deferred tax assets and post-employment benefits.

Note 2a Segment reporting (continued)

<i>USD m</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	UBS
For the year ended 31 December 2022						
Net interest income	5,273	2,191	(19)	(242)	(584)	6,621
Non-interest income	13,694	2,111	2,980 ¹	8,958	199	27,942
Total revenues	18,967	4,302	2,961	8,717	(385)	34,563
Credit loss expense / (release)	0	39	0	(12)	3	29
Operating expenses	13,989	2,452	1,564	6,832	92	24,930
Operating profit / (loss) before tax	4,977	1,812	1,397	1,897	(480)	9,604
Tax expense / (benefit)						1,942
Net profit / (loss)						7,661
Additional information						
Total assets	388,530	235,226	17,348	391,320	71,940	1,104,364
Additions to non-current assets	42	13	1	34	1,970	2,060
<i>USD m</i>						
For the year ended 31 December 2021						
Net interest income	4,244	2,120	(15)	481	(127)	6,705
Non-interest income	15,175	2,143	2,632	8,972	(233)	28,689
Total revenues	19,419	4,263	2,617	9,454	(359)	35,393
Credit loss expense / (release)	(29)	(86)	1	(34)	0	(148)
Operating expenses	14,665	2,618	1,586	6,858	330	26,058
Operating profit / (loss) before tax	4,783	1,731	1,030	2,630	(689)	9,484
Tax expense / (benefit)						1,998
Net profit / (loss)						7,486
Additional information						
Total assets ²	395,235	225,370	25,639	346,431	124,507	1,117,182
Additions to non-current assets	56	16	1	30	1,989	2,091
<i>USD m</i>						
For the year ended 31 December 2020						
Net interest income	4,027	2,049	(17)	284	(481)	5,862
Non-interest income ³	13,107	1,858	2,993	9,235	30	27,222
Total revenues	17,134	3,908	2,975	9,519	(452)	33,084
Credit loss expense / (release)	88	257	2	305	42	694
Operating expenses	13,026	2,392	1,519	6,732	567	24,235
Operating profit / (loss) before tax	4,019	1,259	1,455	2,482	(1,060)	8,155
Tax expense / (benefit)						1,583
Net profit / (loss)						6,572
Additional information						
Total assets	367,714	231,657	28,589	369,683	128,122	1,125,765
Additions to non-current assets	5	12	385	150	2,294	2,847

1 Includes an USD 848m gain in Asset Management related to the sale of UBS's shareholding in Mitsubishi Corp.-UBS Realty Inc.

2 During 2022, UBS refined the methodology applied to allocate balance sheet resources from Group Functions to the business divisions, with prospective effect. If the new methodology had been applied as of 31 December 2021, balance sheet assets allocated to business divisions would have been USD 26bn higher, of which USD 14bn related to the Investment Bank.

3 Includes a USD 631m net gain on the sale of a majority stake in Fondcenter AG (now Clearstream Fund Centre AG), of which USD 571m was recognized in Asset Management and USD 60m was recognized in Global Wealth Management.

Note 2b Segment reporting by geographic location

The operating regions shown in the table below correspond to the regional management structure of the Group. The allocation of total revenues to these regions reflects, and is consistent with, the basis on which the business is managed and its performance is evaluated. These allocations involve assumptions and judgments that management considers to be reasonable, and may be refined to reflect changes in estimates or management structure. The main principles of the allocation methodology are that client revenues are attributed to the domicile of the given client and trading and portfolio management revenues are attributed to the country where the risk is managed. This revenue attribution is consistent with the mandate of the regional Presidents. Certain revenues, such as those related to Non-core and Legacy Portfolio in Group Functions, are managed at a Group level. These revenues are included in the *Global* line.

The geographic analysis of non-current assets is based on the location of the entity in which the given assets are recorded.

For the year ended 31 December 2022

	Total revenues ¹		Total non-current assets	
	USD bn	Share %	USD bn	Share %
Americas ²	13.8	40	8.9	46
Asia Pacific	5.6	16	1.5	8
Europe, Middle East and Africa (excluding Switzerland)	7.0	20	2.9	15
Switzerland	7.7	22	6.3	32
Global	0.5	1	0.0	0
Total	34.6	100	19.7	100

For the year ended 31 December 2021

	Total revenues ¹		Total non-current assets	
	USD bn	Share %	USD bn	Share %
Americas ²	14.5	41	9.0	44
Asia Pacific	6.5	18	1.5	7
Europe, Middle East and Africa (excluding Switzerland)	7.0	20	2.9	14
Switzerland	7.8	22	7.1	35
Global	(0.3)	(1)	0.0	0
Total	35.4	100	20.5	100

For the year ended 31 December 2020

	Total revenues ¹		Total non-current assets	
	USD bn	Share %	USD bn	Share %
Americas ²	13.2	40	9.0	42
Asia Pacific	6.1	18	1.5	7
Europe, Middle East and Africa (excluding Switzerland)	6.5	20	3.0	14
Switzerland	7.1	22	7.6	36
Global	0.1	0	0.0	0
Total	33.1	100	21.1	100

1 During 2022, UBS changed the presentation of its Income statement. Total operating income was renamed Total revenues and excludes Credit loss expense / (release). Note 2b, including prior-period information, has been updated to reflect the new presentation structure, with the disclosure of Total revenues instead of Total operating income. Refer to Note 1b for more information.

2 Predominantly related to the USA.

Note 3 Net interest income and other net income from financial instruments measured at fair value through profit or loss

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Net interest income from financial instruments measured at fair value through profit or loss and other	1,403	1,431	1,299
Other net income from financial instruments measured at fair value through profit or loss	7,517	5,850	6,960
<i>of which: net gains / (losses) from financial liabilities designated at fair value¹</i>	17,037	(6,582)	1,509
Total net income from financial instruments measured at fair value through profit or loss and other	8,920	7,281	8,259
Net interest income			
Interest income from loans and deposits ²	9,612	6,488	6,690
Interest income from securities financing transactions measured at amortized cost ³	1,378	513	862
Interest income from other financial instruments measured at amortized cost	545	284	335
Interest income from debt instruments measured at fair value through other comprehensive income	74	115	101
Interest income from derivative instruments designated as cash flow hedges	173	1,133	822
Total interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	11,782	8,533	8,810
Interest expense on loans and deposits ⁴	2,579	523	1,031
Interest expense on securities financing transactions measured at amortized cost ⁵	1,089	1,102	870
Interest expense on debt issued	2,803	1,533	2,237
Interest expense on lease liabilities	92	102	110
Total interest expense from financial instruments measured at amortized cost	6,564	3,259	4,247
Total net interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	5,218	5,274	4,563
Total net interest income from financial instruments measured at fair value through profit or loss and other	1,403	1,431	1,299
Total net interest income	6,621	6,705	5,862

- 1 Excludes fair value changes of hedges related to financial liabilities designated at fair value and foreign currency translation effects arising from translating foreign currency transactions into the respective functional currency, both of which are reported within Other net income from financial instruments measured at fair value through profit or loss. 2022 included net gains of USD 4,112m (net losses of USD 2,068m and USD 72m in 2021 and 2020, respectively), driven by financial liabilities related to unit-linked investment contracts, which are designated at fair value through profit or loss. This was offset by net losses of USD 4,112m (net gains of USD 2,068m and USD 72m in 2021 and 2020, respectively), related to financial assets for unit-linked investment contracts that are mandatorily measured at fair value through profit or loss not held for trading.
- 2 Consists of interest income from cash and balances at central banks, loans and advances to banks and customers, and cash collateral receivables on derivative instruments, as well as negative interest on amounts due to banks, customer deposits, and cash collateral payables on derivative instruments.
- 3 Includes negative interest, including fees, on payables from securities financing transactions measured at amortized cost.
- 4 Consists of interest expense on amounts due to banks, cash collateral payables on derivative instruments, and customer deposits, as well as negative interest on cash and balances at central banks, loans and advances to banks, and cash collateral receivables on derivative instruments.
- 5 Includes negative interest, including fees, on receivables from securities financing transactions measured at amortized cost.

Note 4 Net fee and commission income

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Underwriting fees	579	1,463	1,085
M&A and corporate finance fees	804	1,102	736
Brokerage fees	3,484	4,382	4,132
Investment fund fees	4,942	5,790	5,289
Portfolio management and related services	9,059	9,762	8,009
Other	1,920	1,874	1,710
Total fee and commission income¹	20,789	24,372	20,961
<i>of which: recurring</i>	14,229	15,410	13,009
<i>of which: transaction-based</i>	6,492	8,692	7,491
<i>of which: performance-based</i>	68	269	461
Fee and commission expense	1,823	1,985	1,775
Net fee and commission income	18,966	22,387	19,186

- 1 For the year ended 31 December 2022, reflects third-party fee and commission income of USD 12,990m for Global Wealth Management, USD 1,654m for Personal & Corporate Banking, USD 2,840m for Asset Management, USD 3,296m for the Investment Bank and USD 10m for Group Functions (for the year ended 31 December 2021: USD 14,545m for Global Wealth Management, USD 1,644m for Personal & Corporate Banking, USD 3,337m for Asset Management, USD 4,814m for the Investment Bank and USD 33m for Group Functions; for the year ended 31 December 2020: USD 12,475m for Global Wealth Management, USD 1,426m for Personal & Corporate Banking, USD 3,129m for Asset Management, USD 3,882m for the Investment Bank and USD 49m for Group Functions).

Note 5 Other income

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Associates, joint ventures and subsidiaries			
Net gains / (losses) from acquisitions and disposals of subsidiaries ¹	148	(11)	635 ²
Net gains / (losses) from disposals of investments in associates and joint ventures	844 ³	41	0
Share of net profits of associates and joint ventures	32	105	84
Total	1,024	135	719
Net gains / (losses) from disposals of financial assets measured at fair value through other comprehensive income			
	(1)	9	40
Income from properties ⁴	20	23	26
Net gains / (losses) from properties held for sale	24	100 ⁵	76 ⁶
Other	391 ⁷	185 ⁸	216 ⁹
Total other income	1,459	452	1,076

- 1 Includes foreign exchange gains / (losses) reclassified from other comprehensive income related to the disposal or closure of foreign operations. Refer to Note 29 for more information about UBS's acquisitions and disposals of subsidiaries and businesses.
- 2 Includes a USD 631m net gain on the sale of a majority stake in Fondcenter AG (now Clearstream Fund Centre AG).
- 3 Includes an USD 848m gain related to the sale of UBS's shareholding in Mitsubishi Corp.-UBS Realty Inc. Refer to Note 28b for more information.
- 4 Includes rent received from third parties.
- 5 Mainly relates to the sale of a property in Basel.
- 6 Includes net gains of USD 140m arising from sale-and-leaseback transactions, primarily related to a property in Geneva, partly offset by remeasurement losses relating to properties that were reclassified as held for sale.
- 7 Mainly relates to a portion of the total USD 133m gain on the sale of UBS's domestic wealth management business in Spain of USD 111m (with the remaining amount disclosed within Net gains / (losses) from acquisitions and disposals of subsidiaries), income of USD 111m related to a legacy litigation settlement and a legacy bankruptcy claim, as well as gains of USD 98m related to the repurchase of UBS's own debt instruments (compared with losses of USD 60m in 2021).
- 8 Includes a gain of USD 100m from the sale of UBS's domestic wealth management business in Austria.
- 9 Includes a USD 215m gain on the sale of intellectual property rights associated with the Bloomberg Commodity Index family.

Note 6 Personnel expenses

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Salaries ¹	7,045	7,339	7,023
Variable compensation ²	7,954	8,280	7,520
<i>of which: performance awards</i>	3,205	3,190	3,209 ³
<i>of which: financial advisors⁴</i>	4,508	4,860	4,091
<i>of which: other</i>	241	229	220
Contractors	323	381	375
Social security	944	978	899 ³
Post-employment benefit plans ⁵	794	833	845
<i>of which: defined benefit plans</i>	437	470	502
<i>of which: defined contribution plans</i>	357	363	343
Other personnel expenses	621	576	561 ³
Total personnel expenses	17,680	18,387	17,224

- 1 Includes role-based allowances.
- 2 Refer to Note 27 for more information.
- 3 During 2020, UBS modified the conditions for continued vesting of certain outstanding deferred compensation awards for qualifying employees, resulting in an expense of approximately USD 280m, of which USD 240m is disclosed within Variable compensation – performance awards, USD 20m within Social security and USD 20m within Other personnel expenses.
- 4 Consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.
- 5 Refer to Note 26 for more information. Includes curtailment gains of USD 20m for the year ended 31 December 2022 (for the year ended 31 December 2021: USD 80m; for the year ended 31 December 2020: USD 0m), which represent a reduction in the defined benefit obligation related to the Swiss pension plan resulting from a decrease in headcount following restructuring activities.

Note 7 General and administrative expenses

<i>USD m</i>	For the year ended		
	<u>31.12.22</u>	<u>31.12.21</u>	<u>31.12.20</u>
Outsourcing costs	896	893	951
Technology costs	1,146	1,055	949
Consulting, legal and audit fees	592	540	646
Real estate and logistics costs	605	634	671
Market data services	419	417	413
Marketing and communication	265	242	217
Travel and entertainment	172	72	84
Litigation, regulatory and similar matters ¹	348	911	197
Other	746	788	757
Total general and administrative expenses	<u>5,189</u>	<u>5,553</u>	<u>4,885</u>

- 1 Reflects the net increase in provisions for litigation, regulatory and similar matters recognized in the income statement. Refer to Note 17 for more information.

Note 8 Income taxes

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Tax expense / (benefit)			
Swiss			
Current	730	680	482
Deferred	(15)	34	116
Total Swiss	715	714	598
Non-Swiss			
Current	718	884	749
Deferred	509	400	236
Total non-Swiss	1,227	1,284	985
Total income tax expense / (benefit) recognized in the income statement	1,942	1,998	1,583

Income tax recognized in the income statement

The Swiss current tax expenses related to taxable profits of UBS Switzerland AG and other Swiss entities.

The non-Swiss current tax expenses related to taxable profits of non-Swiss subsidiaries and branches. The non-Swiss deferred tax expenses include expenses of USD 678m that primarily related to the amortization of deferred tax assets (DTAs) previously recognized in relation to tax losses carried forward and deductible temporary differences of UBS Americas Inc., which were partly offset by a benefit of USD 169m in respect of net upward revaluations of DTAs for certain entities, primarily in connection with our business planning process.

The effective tax rate for the year of 20.2% is lower than our projected rate for the year of 24%, primarily as a result of the aforementioned deferred tax benefit of USD 169m in respect of net upward revaluations of DTAs and because no tax expenses were recognized in respect of pre-tax gains from dispositions of UBS subsidiaries in 2022.

› **Refer to Note 29 for more information about disposals of subsidiaries**

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Operating profit / (loss) before tax	9,604	9,484	8,155
of which: Swiss	4,425	3,334	3,403
of which: non-Swiss	5,178	6,150	4,752
Income taxes at Swiss tax rate of 18% for 2022, 18.5% for 2021 and 19.5% for 2020	1,729	1,755	1,590
Increase / (decrease) resulting from:			
Non-Swiss tax rates differing from Swiss tax rate	284	234	110
Tax effects of losses not recognized	74	124	144
Previously unrecognized tax losses now utilized	(217)	(179)	(212)
Non-taxable and lower-taxed income	(335)	(278)	(394)
Non-deductible expenses and additional taxable income	429	510	385
Adjustments related to prior years, current tax	(41)	(40)	(67)
Adjustments related to prior years, deferred tax	13	(10)	12
Change in deferred tax recognition	(217)	(342)	(381)
Adjustments to deferred tax balances arising from changes in tax rates	0	(5)	234
Other items	222	231	161
Income tax expense / (benefit)	1,942	1,998	1,583

Note 8 Income taxes (continued)

The components of operating profit before tax, and the differences between income tax expense reflected in the financial statements and the amounts calculated at the Swiss tax rate, are provided in the table above and explained below.

Component	Description
Non-Swiss tax rates differing from the Swiss tax rate	To the extent that Group profits or losses arise outside Switzerland, the applicable local tax rate may differ from the Swiss tax rate. This item reflects, for such profits, an adjustment from the tax expense that would arise at the Swiss tax rate to the tax expense that would arise at the applicable local tax rate. Similarly, it reflects, for such losses, an adjustment from the tax benefit that would arise at the Swiss tax rate to the tax benefit that would arise at the applicable local tax rate.
Tax effects of losses not recognized	This item relates to tax losses of entities arising in the year that are not recognized as DTAs and where no tax benefit arises in relation to those losses. Therefore, the tax benefit calculated by applying the local tax rate to those losses as described above is reversed.
Previously unrecognized tax losses now utilized	This item relates to taxable profits of the year that are offset by tax losses of previous years for which no DTAs were previously recorded. Consequently, no current tax or deferred tax expense arises in relation to those taxable profits and the tax expense calculated by applying the local tax rate on those profits is reversed.
Non-taxable and lower-taxed income	This item relates to tax deductions for the year in respect of permanent differences. These include deductions in respect of profits that are either not taxable or are taxable at a lower rate of tax than the local tax rate. They also include deductions made for tax purposes, which are not reflected in the accounts.
Non-deductible expenses and additional taxable income	This item relates to additional taxable income for the year in respect of permanent differences. These include income that is recognized for tax purposes by an entity but is not included in its profit that is reported in the financial statements, as well as expenses for the year that are non-deductible (e.g., client entertainment costs are not deductible in certain locations).
Adjustments related to prior years, current tax	This item relates to adjustments to current tax expense for prior years (e.g., if the tax payable for a year is agreed with the tax authorities in an amount that differs from the amount previously reflected in the financial statements).
Adjustments related to prior years, deferred tax	This item relates to adjustments to deferred tax positions recognized in prior years (e.g., if a tax loss for a year is fully recognized and the amount of the tax loss agreed with the tax authorities is expected to differ from the amount previously recognized as DTAs in the accounts).
Change in deferred tax recognition	This item relates to changes in DTAs, including changes in DTAs previously recognized resulting from reassessments of expected future taxable profits. It also includes changes in temporary differences in the year, for which deferred tax is not recognized.
Adjustments to deferred tax balances arising from changes in tax rates	This item relates to remeasurements of DTAs and liabilities recognized due to changes in tax rates. These have the effect of changing the future tax saving that is expected from tax losses or deductible tax differences and therefore the amount of DTAs recognized or, alternatively, changing the tax cost of additional taxable income from taxable temporary differences and therefore the deferred tax liability.
Other items	Other items include other differences between profits or losses at the local tax rate and the actual local tax expense or benefit, including movements in provisions for uncertain positions in relation to the current year and other items.

Income tax recognized directly in equity

A net tax benefit of USD 1,116m was recognized in *Other comprehensive income* (2021: net benefit of USD 479m) and a net tax benefit of USD 13m was recognized in *Share premium* (2021: net expense of USD 88m).

Note 8 Income taxes (continued)

Deferred tax assets and liabilities

The Group has gross DTAs, valuation allowances and recognized DTAs related to tax loss carry-forwards and deductible temporary differences, as well as deferred tax liabilities in respect of taxable temporary differences, as shown in the table below. The valuation allowances reflect DTAs that were not recognized because, as of the last remeasurement period, management did not consider it probable that there would be sufficient future taxable profits available to utilize the related tax loss carry-forwards and deductible temporary differences.

The recognition of DTAs is supported by forecasts of taxable profits for the entities concerned. In addition, tax planning opportunities are available that would result in additional future taxable income and these would be utilized, if necessary.

Deferred tax liabilities are recognized in respect of investments in subsidiaries, branches and associates, and interests in joint arrangements, except to the extent that the Group can control the timing of the reversal of the associated taxable temporary difference and it is probable that such will not reverse in the foreseeable future. However, as of 31 December 2022, this exception was not considered to apply to any taxable temporary differences.

<i>USD m</i>	31.12.22			31.12.21		
	Gross	Valuation allowance	Recognized	Gross	Valuation allowance	Recognized
Deferred tax assets¹						
Tax loss carry-forwards	12,708	(8,720)	3,988	13,636	(9,193)	4,443
Temporary differences	5,814	(414)	5,400	5,133	(700)	4,433
<i>of which: related to real estate costs capitalized for US tax purposes</i>	2,485	0	2,485	2,272	0	2,272
<i>of which: related to compensation and benefits</i>	1,194	(175)	1,018	1,222	(209)	1,013
<i>of which: related to cash flow hedges</i>	947	0	947	3	0	3
<i>of which: other</i>	1,188	(238)	950	1,636	(491)	1,145
Total deferred tax assets	18,522	(9,134)	9,389²	18,769	(9,893)	8,876²
<i>of which: related to the US</i>			8,294			8,521
<i>of which: related to other locations</i>			1,095			355
Deferred tax liabilities						
Cash flow hedges			0			118
Other			236			183
Total deferred tax liabilities			236			300

1 After offset of DTLs, as applicable.

2 As of 31 December 2022, the Group recognized DTAs of USD 471m (31 December 2021: USD 77m) in respect of entities that incurred losses in either the current or preceding year.

In general, US federal tax losses incurred prior to 31 December 2017 can be carried forward for 20 years. US federal tax losses incurred after that date can be carried forward indefinitely, although the utilization of such losses is limited to 80% of the entity's future year taxable profits. UK tax losses can also be carried forward indefinitely; they can shelter up to either 25% or 50% of future year taxable profits, depending on when the tax losses arose. The amounts of US tax loss carry-forwards that are included in the table below are based on their amount for federal tax purposes rather than for state and local tax purposes.

Unrecognized tax loss carry-forwards		
<i>USD m</i>	31.12.22	31.12.21
Within 1 year	231	141
From 2 to 5 years	2,184	1,026
From 6 to 10 years	11,106	13,283
From 11 to 20 years	1,610	2,093
No expiry	16,960	18,147
Total	32,091	34,690
<i>of which: related to the US¹</i>	<i>13,350</i>	<i>14,870</i>
<i>of which: related to the UK</i>	<i>14,332</i>	<i>14,909</i>
<i>of which: related to other locations</i>	<i>4,409</i>	<i>4,911</i>

1 Related to UBS AG's US branch.

Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement

The tables below provide information about financial instruments and certain credit lines that are subject to expected credit loss (ECL) requirements. UBS's ECL disclosure segments, or "ECL segments" are aggregated portfolios based on shared risk characteristics and on the same or similar rating methods applied. The key segments are presented in the table below.

› **Refer to Note 19 for more information about expected credit loss measurement**

Segment	Segment description	Description of credit risk sensitivity	Business division
Private clients with mortgages	Lending to private clients secured by owner-occupied real estate and personal account overdrafts of those clients	Sensitive to the interest rate environment, unemployment levels, real estate collateral values and other regional aspects	– Personal & Corporate Banking – Global Wealth Management
Real estate financing	Rental or income-producing real estate financing to private and corporate clients secured by real estate	Sensitive to unemployment levels, the interest rate environment, real estate collateral values and other regional aspects	– Personal & Corporate Banking – Global Wealth Management – Investment Bank
Large corporate clients	Lending to large corporate and multi-national clients	Sensitive to GDP developments, unemployment levels, seasonality, business cycles and collateral values (diverse collateral, including real estate and other collateral types)	– Personal & Corporate Banking – Investment Bank
SME clients	Lending to small and medium-sized corporate clients	Sensitive to GDP developments, unemployment levels, the interest rate environment and, to some extent, seasonality, business cycles and collateral values (diverse collateral, including real estate and other collateral types)	– Personal & Corporate Banking
Lombard	Loans secured by pledges of marketable securities, guarantees and other forms of collateral (including concentration in hedge funds, private equity and unlisted equities), as well as unsecured recourse lending	Sensitive to equity and debt markets (e.g., changes in collateral values)	– Global Wealth Management
Credit cards	Credit card solutions in Switzerland and the US	Sensitive to unemployment levels	– Personal & Corporate Banking – Global Wealth Management
Commodity trade finance	Working capital financing of commodity traders, generally extended on a self-liquidating transactional basis	Sensitive primarily to the strength of individual transaction structures and collateral values (price volatility of commodities), as the primary source for debt service is directly linked to the shipments financed	– Personal & Corporate Banking
Financial intermediaries and hedge funds	Lending to financial institutions and pension funds, including exposures to broker-dealers and clearing houses	Sensitive to GDP development, the interest rate environment, price and volatility risks in financial markets, and regulatory and political risk	– Personal & Corporate Banking – Investment Bank

› **Refer to Note 19f for more details regarding sensitivity**

Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement (continued)

USD m	31.12.21							
	Carrying amount ¹				ECL allowances			
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3
Financial instruments measured at amortized cost								
Cash and balances at central banks	192,817	192,817	0	0	0	0	0	0
Loans and advances to banks	15,480	15,453	26	1	(8)	(7)	(1)	0
Receivables from securities financing transactions measured at amortized cost	75,012	75,012	0	0	(2)	(2)	0	0
Cash collateral receivables on derivative instruments	30,514	30,514	0	0	0	0	0	0
Loans and advances to customers	397,761	380,564	15,620	1,577	(850)	(126)	(152)	(572)
<i>of which: Private clients with mortgages</i>	152,479	143,505	8,262	711	(132)	(28)	(71)	(33)
<i>of which: Real estate financing</i>	43,945	40,463	3,472	9	(60)	(19)	(40)	0
<i>of which: Large corporate clients</i>	13,990	12,643	1,037	310	(170)	(22)	(16)	(133)
<i>of which: SME clients</i>	14,004	12,076	1,492	436	(259)	(19)	(15)	(225)
<i>of which: Lombard</i>	149,283	149,255	0	27	(33)	(6)	0	(28)
<i>of which: Credit cards</i>	1,716	1,345	342	29	(36)	(10)	(9)	(17)
<i>of which: Commodity trade finance</i>	3,813	3,799	7	7	(114)	(6)	0	(108)
Other financial assets measured at amortized cost	26,209	25,718	302	189	(109)	(27)	(7)	(76)
<i>of which: Loans to financial advisors</i>	2,453	2,184	106	163	(86)	(19)	(3)	(63)
Total financial assets measured at amortized cost	737,794	720,079	15,948	1,767	(969)	(161)	(160)	(647)
Financial assets measured at fair value through other comprehensive income	8,844	8,844	0	0	0	0	0	0
Total on-balance sheet financial assets within the scope of ECL requirements	746,638	728,923	15,948	1,767	(969)	(161)	(160)	(647)
Off-balance sheet (within the scope of ECL)								
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3
Guarantees	20,972	19,695	1,127	150	(41)	(18)	(8)	(15)
<i>of which: Large corporate clients</i>	3,464	2,567	793	104	(6)	(3)	(3)	0
<i>of which: SME clients</i>	1,353	1,143	164	46	(8)	(1)	(1)	(7)
<i>of which: Financial intermediaries and hedge funds</i>	9,575	9,491	84	0	(17)	(13)	(4)	0
<i>of which: Lombard</i>	2,454	2,454	0	0	(1)	0	0	(1)
<i>of which: Commodity trade finance</i>	3,137	3,137	0	0	(1)	(1)	0	0
Irrevocable loan commitments	39,478	37,097	2,335	46	(114)	(72)	(42)	0
<i>of which: Large corporate clients</i>	23,922	21,811	2,102	9	(100)	(66)	(34)	0
Forward starting reverse repurchase and securities borrowing agreements	1,444	1,444	0	0	0	0	0	0
Committed unconditionally revocable credit lines	40,778	38,207	2,508	63	(38)	(28)	(10)	0
<i>of which: Real estate financing</i>	7,328	7,046	281	0	(5)	(4)	(1)	0
<i>of which: Large corporate clients</i>	5,358	4,599	736	23	(7)	(4)	(3)	0
<i>of which: SME clients</i>	5,160	4,736	389	35	(15)	(11)	(3)	0
<i>of which: Lombard</i>	8,670	8,670	0	0	0	0	0	0
<i>of which: Credit cards</i>	9,466	9,000	462	4	(6)	(5)	(2)	0
<i>of which: Commodity trade finance</i>	117	117	0	0	0	0	0	0
Irrevocable committed prolongation of existing loans	5,611	5,527	36	48	(3)	(3)	0	0
Total off-balance sheet financial instruments and credit lines	108,284	101,971	6,006	307	(196)	(121)	(60)	(15)
Total allowances and provisions					(1,165)	(282)	(220)	(662)

¹ The carrying amount of financial assets measured at amortized cost represents the total gross exposure net of the respective ECL allowances.

Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement (continued)

Coverage ratios are calculated for the core loan portfolio by taking ECL allowances and provisions divided by the gross carrying amount of the exposures. Core loan exposure is defined as the sum of *Loans and advances to customers* and *Loans to financial advisors*.

These ratios are influenced by the following key factors:

- Lombard loans are generally secured with marketable securities in portfolios that are, as a rule, highly diversified, with strict lending policies that are intended to ensure that credit risk is minimal under most circumstances;
- mortgage loans to private clients and real estate financing are controlled by conservative eligibility criteria, including low loan-to-value ratios and strong debt service capabilities;
- the amount of unsecured retail lending (including credit cards) is insignificant;
- lending in Switzerland includes government-backed COVID-19 loans;
- contractual maturities in the loan portfolio, which are a factor in the calculation of ECLs, are generally short, with Lombard lending typically having average contractual maturities of 12 months or less, real estate lending generally between two and three years in Switzerland, with long dated maturities in the US, and corporate lending between one and two years with related loan commitments up to four years; and
- write-offs of ECL allowances against the gross loan balances when all or part of a financial asset is deemed uncollectible or forgiven, reduces the coverage ratios.

The total combined on- and off-balance sheet coverage ratio was at 21 basis points as of 31 December 2022, 1 basis point lower than on 31 December 2021. The combined stage 1 and 2 ratio of 10 basis points was unchanged compared with 31 December 2021; the stage 3 ratio was 22%, 2 percentage points lower than as of 31 December 2021.

On-balance sheet	31.12.22									
	Gross carrying amount (USD m)				ECL coverage (bps)					
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3	
Private clients with mortgages	157,091	147,678	8,686	727	10	2	123	9	381	
Real estate financing	46,511	43,129	3,372	9	9	4	70	9	232	
Total real estate lending	203,602	190,807	12,059	736	10	2	108	9	379	
Large corporate clients	12,356	10,757	1,204	395	105	22	120	32	2,325	
SME clients	14,154	12,237	1,364	553	177	22	161	36	3,664	
Total corporate lending	26,510	22,994	2,567	949	144	22	142	34	3,106	
Lombard	132,313	132,205	0	108	2	1	0	1	1,580	
Credit cards	1,869	1,427	393	50	190	46	256	91	3,779	
Commodity trade finance	3,367	3,266	0	101	285	18	0	18	8,901	
Other loans and advances to customers	20,342	19,525	748	68	21	7	38	8	3,769	
Loans to financial advisors	2,670	2,364	130	176	221	28	124	33	2,870	
Total other lending	160,561	158,787	1,270	503	16	3	114	4	4,016	
Total¹	390,672	372,588	15,896	2,188	22	4	114	8	2,398	
Off-balance sheet	Gross exposure (USD m)				ECL coverage (bps)					
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3	
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3	
Private clients with mortgages	6,535	6,296	236	3	5	4	18	4	1,183	
Real estate financing	10,054	9,779	275	0	6	7	0	6	0	
Total real estate lending	16,589	16,075	511	3	6	6	2	6	1,288	
Large corporate clients	32,126	28,950	3,013	163	38	18	165	32	1,263	
SME clients	7,122	6,525	499	98	47	30	214	43	304	
Total corporate lending	39,247	35,475	3,513	260	40	20	172	34	903	
Lombard	12,919	12,918	0	1	2	1	0	1	0	
Credit cards	9,390	8,900	487	3	7	5	36	7	0	
Commodity trade finance	2,459	2,459	0	0	3	3	0	3	0	
Financial intermediaries and hedge funds	15,841	14,177	1,664	0	9	7	25	9	0	
Other off-balance sheet commitments	11,803	11,454	346	3	11	8	68	9	0	
Total other lending	52,412	49,907	2,498	7	7	5	33	6	0	
Total²	108,249	101,457	6,522	270	19	10	106	16	980	
Total on- and off-balance sheet³	498,921	474,045	22,418	2,458	21	5	112	10	2,242	

1 Includes Loans and advances to customers and Loans to financial advisors which are presented on the balance sheet line Other assets measured at amortized cost.

2 Excludes Forward starting reverse repurchase and securities borrowing agreements.

3 Includes on-balance-sheet exposure, gross and off-balance-sheet exposure (notional) and the related ECL coverage ratio.

Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement (continued)

On-balance sheet	31.12.21									
	Gross carrying amount (USD m)				ECL coverage (bps)					
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3	
Private clients with mortgages	152,610	143,533	8,333	744	9	2	85	6	446	
Real estate financing	44,004	40,483	3,512	10	14	5	114	14	231	
Total real estate lending	196,615	184,016	11,845	754	10	3	94	8	443	
Large corporate clients	14,161	12,665	1,053	443	120	18	148	28	2,997	
SME clients	14,263	12,095	1,507	661	182	16	103	25	3,402	
Total corporate lending	28,424	24,760	2,560	1,104	151	17	121	26	3,240	
Lombard	149,316	149,261	0	55	2	0	0	0	5,026	
Credit cards	1,752	1,355	351	46	204	72	255	109	3,735	
Commodity trade finance	3,927	3,805	7	115	290	15	3	15	9,388	
Other loans and advances to customers	18,578	17,493	1,010	75	25	9	15	10	3,730	
Loans to financial advisors	2,539	2,203	109	226	338	88	303	99	2,791	
Total other lending	176,111	174,117	1,477	517	18	3	93	4	4,718	
Total¹	401,150	382,893	15,882	2,374	23	4	98	8	2,673	

Off-balance sheet	Gross exposure (USD m)				ECL coverage (bps)					
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3	
	Private clients with mortgages	9,123	8,798	276	49	3	3	9	3	15
Real estate financing	8,766	8,481	285	0	9	7	88	9	0	
Total real estate lending	17,889	17,278	562	49	6	5	49	6	15	
Large corporate clients	32,748	28,981	3,630	136	34	25	110	35	1	
SME clients	8,077	7,276	688	114	38	19	151	30	585	
Total corporate lending	40,826	36,258	4,318	250	35	24	117	34	266	
Lombard	14,438	14,438	0	0	1	0	0	0	0	
Credit cards	9,466	9,000	462	4	7	5	34	7	0	
Commodity trade finance	3,262	3,262	0	0	4	4	0	4	0	
Financial intermediaries and hedge funds	12,153	11,784	369	0	15	12	120	15	0	
Other off-balance sheet commitments	8,806	8,507	296	4	15	6	30	7	0	
Total other lending	48,126	46,991	1,127	8	9	5	61	7	0	
Total²	106,840	100,527	6,006	307	18	12	100	17	486	
Total on- and off-balance sheet³	507,990	483,420	21,888	2,681	22	6	99	10	2,423	

- 1 Includes Loans and advances to customers and Loans to financial advisors which are presented on the balance sheet line Other assets measured at amortized cost.
- 2 Excludes Forward starting reverse repurchase and securities borrowing agreements.
- 3 Includes on-balance-sheet exposure, gross and off-balance-sheet exposure (notional) and the related ECL coverage ratio.

Note 10 Derivative instruments

Overview

Over-the-counter (OTC) derivative contracts are usually traded under a standardized International Swaps and Derivatives Association (ISDA) master agreement or other recognized local industry-standard master agreements between UBS and its counterparties. Terms are negotiated directly with counterparties and the contracts have industry-standard settlement mechanisms prescribed by ISDA or similar industry-standard solutions. Other OTC derivatives are cleared through clearing houses, in particular interest rate swaps with LCH, where a settled-to-market method has been generally adopted, under which cash collateral exchanged on a daily basis is considered to legally settle the market value of the derivatives. Regulators in various jurisdictions have introduced rules requiring the payment and collection of initial and variation margins on certain OTC derivative contracts, which may have a bearing on price and other relevant terms.

Exchange-traded derivatives (ETD) are standardized in terms of their amounts and settlement dates, and are bought and sold on regulated exchanges. Exchanges offer the benefits of pricing transparency, standardized daily settlement of changes in value and, consequently, reduced credit risk.

Most of the Group's derivative transactions relate to sales and market-making activity. Sales activities include the structuring and marketing of derivative products to customers to enable them to take, transfer, modify or reduce current or expected risks. Market-making aims to directly support the facilitation and execution of client activity, and involves quoting bid and offer prices to other market participants with the aim of generating revenues based on spread and volume. The Group also uses various derivative instruments for hedging purposes.

- › Refer to Notes 15 and 20 for more information about derivative instruments
- › Refer to Note 25 for more information about derivatives designated in hedge accounting relationships

Note 10 Derivative instruments (continued)

Risks of derivative instruments

The derivative financial assets shown on the balance sheet can be an important component of the Group's credit exposure; however, the positive replacement values related to a respective counterparty are rarely an adequate reflection of the Group's credit exposure in its derivatives business with that counterparty. This is generally the case because, on the one hand, replacement values can increase over time (potential future exposure), while, on the other hand, exposure may be mitigated by entering into master netting agreements and bilateral collateral arrangements. Both the exposure measures used internally by the Group to control credit risk and the capital requirements imposed by regulators reflect these additional factors.

- › Refer to Note 21 for more information about derivative financial assets and liabilities after consideration of netting potential permitted under enforceable netting arrangements
- › Refer to the "Risk management and control" section of this report for more information about the risks arising from derivative instruments

Derivative instruments

	31.12.22					31.12.21				
	Derivative financial assets	Notional amounts related to derivative financial assets ^{2,3}	Derivative financial liabilities	Notional amounts related to derivative financial liabilities ^{2,3}	Other notional amounts ^{2,4}	Derivative financial assets	Notional amounts related to derivative financial assets ^{2,3}	Derivative financial liabilities	Notional amounts related to derivative financial liabilities ^{2,3}	Other notional amounts ^{2,4}
<i>USD bn</i>										
Interest rate contracts	39.8	1,057.4	37.5	1,022.9	11,255.4	33.2	991.2	28.7	943.1	8,675.1
<i>of which: forwards (OTC)¹</i>	0.2	37.7	0.0	34.6	792.7	0.1	29.4	0.2	28.6	443.6
<i>of which: swaps (OTC)</i>	25.2	326.1	19.8	281.0	9,728.6	26.4	394.3	19.2	344.1	7,549.4
<i>of which: options (OTC)</i>	14.2	687.5	17.5	705.0		6.6	545.2	9.2	553.6	
<i>of which: futures (ETD)</i>					606.3					525.0
<i>of which: options (ETD)</i>	0.0	6.1	0.0	2.2	127.7	0.0	22.4	0.0	16.8	157.1
Credit derivative contracts	1.0	36.8	1.2	37.1		1.4	44.7	1.8	46.3	
<i>of which: credit default swaps (OTC)</i>	0.9	34.2	1.0	36.8		1.3	39.4	1.6	44.1	
<i>of which: total return swaps (OTC)</i>	0.1	0.9	0.2	0.3		0.1	1.3	0.2	1.7	
Foreign exchange contracts	85.5	3,087.1	88.5	2,992.7	40.1	53.3	3,030.8	54.1	2,938.8	1.2
<i>of which: forwards (OTC)</i>	26.5	853.4	28.6	910.2		23.8	1,008.9	23.8	1,043.2	
<i>of which: swaps (OTC)</i>	49.6	1,679.3	50.4	1,553.7	38.4	24.3	1,606.3	24.9	1,480.3	
<i>of which: options (OTC)</i>	9.3	551.6	9.2	521.6		5.2	412.6	5.3	408.6	
Equity contracts	22.2	384.5	26.1	501.3	63.4	28.2	456.9	34.9	603.9	80.1
<i>of which: swaps (OTC)</i>	5.3	95.5	6.6	122.0		4.7	105.7	9.3	154.8	
<i>of which: options (OTC)</i>	2.8	51.6	4.4	89.0		4.6	61.4	6.5	102.3	
<i>of which: futures (ETD)</i>					52.2					71.2
<i>of which: options (ETD)</i>	9.0	237.0	8.1	289.7	11.2	10.2	289.6	9.8	346.3	8.8
<i>of which: client-cleared transactions (ETD)</i>	5.1		7.0			8.6		9.4		
Commodity contracts	1.4	68.1	1.4	64.2	17.6	1.6	57.8	1.6	56.4	14.7
<i>of which: swaps (OTC)</i>	0.5	19.3	0.7	19.3		0.5	19.9	0.8	25.4	
<i>of which: options (OTC)</i>	0.4	15.8	0.3	13.3		0.4	14.0	0.2	10.4	
<i>of which: futures (ETD)</i>					16.4					13.9
<i>of which: forwards (ETD)</i>	0.0	24.5	0.0	23.2		0.0	18.1	0.0	15.2	
<i>of which: client-cleared transactions (ETD)</i>	0.2		0.3			0.6		0.4		
Loan commitments measured at FVTPL (OTC)	0.0	0.9	0.0	3.7		0.0	0.8	0.0	8.2	
Unsettled purchases of non-derivative financial instruments⁵	0.1	12.1	0.1	9.4		0.1	13.3	0.2	10.6	
Unsettled sales of non-derivative financial instruments⁵	0.1	13.0	0.0	10.7		0.2	18.2	0.1	9.4	

Total derivative instruments, based on IFRS netting⁶	150.1	4,659.9	154.9	4,641.9	11,376.5	118.1	4,613.8	121.3	4,616.6	8,771.1
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- 1 Includes certain forward starting repurchase and reverse repurchase agreements that are classified as measured at fair value through profit or loss and are recognized within derivative instruments.
- 2 In cases where derivative financial instruments are presented on a net basis on the balance sheet, the respective notional amounts of the netted derivative financial instruments are still presented on a gross basis.
- 3 Notional amounts of client-cleared ETD and OTC transactions through central clearing counterparties are not disclosed, as they have significantly different risk profile.
- 4 Other notional amounts relate to derivatives that are cleared through either a central counterparty or an exchange. The fair value of these derivatives is presented on the balance sheet net of the corresponding cash margin under Cash collateral receivables on derivative instruments and Cash collateral payables on derivative instruments and was not material for any of the periods presented.
- 5 Changes in the fair value of purchased and sold non-derivative financial instruments between trade date and settlement date are recognized as derivative financial instruments.
- 6 Derivative financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. Refer to Note 21 for more information on netting arrangements.

Note 10 Derivative instruments (continued)

On a notional amount basis, approximately 46% of OTC interest rate contracts held as of 31 December 2022 (31 December 2021: 40%) mature within one year, 32% (31 December 2021: 36%) within one to five years and 22% (31 December 2021: 25%) after five years.

Notional amounts of interest rate contracts cleared through either a central counterparty or an exchange that are legally settled or economically net settled on a daily basis are presented under *Other notional amounts* in the table above and are categorized into maturity buckets on the basis of contractual maturities of the cleared underlying derivative contracts. Other notional amounts related to interest rate contracts increased by USD 2.6trn compared with 31 December 2021, mainly reflecting higher business volumes driven by elevated interest rate volatility and inflation, partly offset by compression activity.

Note 11 Property, equipment and software

At historical cost less accumulated depreciation

<i>USD m</i>	Owned properties and equipment ¹	Leased properties and equipment ²	Software	Projects in progress	2022 ³	2021 ³
Historical cost						
Balance at the beginning of the year	13,048	4,174	8,642	1,250	27,113	26,238
Additions	162	412	300	1,182	2,057	2,090
Disposals / write-offs ⁴	(333)	(62)	(106)	0	(501)	(751)
Reclassifications	(1,073)	0	1,151	(1,301)	(1,223)	(18)
Foreign currency translation	(217)	(65)	(42)	5	(319)	(445)
Balance at the end of the year	11,587	4,459	9,944	1,136	27,127	27,113
Accumulated depreciation						
Balance at the beginning of the year	8,072	1,346	4,807		14,225	13,129
Depreciation	577	451	1,005		2,033	2,078
Impairment ⁵	3	0	0		3	10
Disposals / write-offs ⁴	(332)	(59)	(106)		(497)	(737)
Reclassifications	(761)	(1)	0		(761)	(12)
Foreign currency translation	(135)	(24)	(6)		(164)	(243)
Balance at the end of the year	7,425	1,714	5,699		14,839	14,225
Net book value						
Net book value at the beginning of the year	4,976	2,828	3,835	1,250	12,888	13,109
Net book value at the end of the year	4,162	2,746	4,245	1,136 ⁶	12,288	12,888

1 Includes leasehold improvements and IT hardware.

2 Represents right-of-use assets recognized by UBS as lessee. UBS predominantly enters into lease contracts, or contracts that include lease components, in relation to real estate, including offices, retail branches and sales offices. The total cash outflow for leases during 2022 was USD 614m (2021: USD 657m). Interest expense on lease liabilities is included within Interest expense from financial instruments measured at amortized cost and Lease liabilities are included within Other financial liabilities measured at amortized cost. Refer to Notes 3 and 18a, respectively. There were no material gains or losses arising from sale-and-leaseback transactions in 2022 and in 2021.

3 The total reclassification amount for the respective periods represents net reclassifications to Properties and other non-current assets held for sale.

4 Includes write-offs of fully depreciated assets.

5 Impairment charges recorded in 2022 generally relate to assets that are no longer used, for which the recoverable amount based on a value in use approach was determined to be zero.

6 Consists of USD 939m related to software and USD 197m related to Owned properties and equipment.

Note 12 Goodwill and intangible assets

Introduction

UBS performs an impairment test on its goodwill assets on an annual basis or when indicators of impairment exist.

UBS considers Asset Management, as it is reported in Note 2a, as a separate cash-generating unit (a CGU), as that is the level at which the performance of investment (and the related goodwill) is reviewed and assessed by management. Given that a significant amount of goodwill in Global Wealth Management relates to the PaineWebber acquisition in 2000, which mainly affected the Americas portion of the business, this goodwill remains separately monitored by the Americas, despite the formation of Global Wealth Management in 2018. Therefore, goodwill for Global Wealth Management is separately considered for impairment at the level of two CGUs: Americas; and Switzerland and International (consisting of EMEA, Asia

Pacific and Global).

The impairment test is performed for each CGU to which goodwill is allocated by comparing the recoverable amount with the carrying amount of the respective CGU. UBS determines the recoverable amount of the respective CGUs based on their value in use. An impairment charge is recognized if the carrying amount exceeds the recoverable amount.

As of 31 December 2022, total goodwill recognized on the balance sheet was USD 6.0bn, of which USD 3.7bn was carried by the Global Wealth Management Americas CGU, USD 1.2bn was carried by the Global Wealth Management Switzerland and International CGU, and USD 1.2bn was carried by Asset Management. Based on the impairment testing methodology described below, UBS concluded that the goodwill balances as of 31 December 2022 allocated to these CGUs were not impaired.

Note 12 Goodwill and intangible assets (continued)

Methodology for goodwill impairment testing

The recoverable amounts are determined using a discounted cash flow model, which has been adapted to use inputs that consider features of the banking business and its regulatory environment. The recoverable amount of a CGU is the sum of the discounted earnings attributable to shareholders from the first three forecast years and the terminal value, adjusted for the effect of the capital assumed to be needed over the next three years and to support growth beyond that period. The terminal value, which covers all periods beyond the third year, is calculated on the basis of the forecast of the third-year profit, the discount rate and the long-term growth rate, as well as the implied perpetual capital growth.

The carrying amount for each CGU is determined by reference to the Group's equity attribution framework. Within this framework, which is described in the "Capital, liquidity and funding, and balance sheet" section of this report, UBS attributes equity to the businesses on the basis of their risk-weighted assets and leverage ratio denominator (both metrics include resource allocations from Group Functions to the business divisions), their goodwill and their intangible assets, as well as attributed equity related to certain common equity tier 1 deduction items. The framework is primarily used for the purpose of measuring the performance of the businesses and includes certain management assumptions. Attributed equity is equal to the capital a CGU requires to conduct its business and is currently considered a reasonable approximation of the carrying amount of the CGUs. The attributed equity methodology is also applied in the business planning process, the inputs from which are used in calculating the recoverable amounts of the respective CGU.

- › Refer to the "Capital, liquidity and funding, and balance sheet" section of this report for more information about the equity attribution framework

Assumptions

Valuation parameters used within the Group's impairment test model are linked to external market information, where applicable. The model used to determine the recoverable amount is most sensitive to changes in the forecast earnings available to shareholders in years one to three, to changes in the discount rates and to changes in the long-term growth rate. The applied long-term growth rate is based on long-term economic growth rates for different regions worldwide. Earnings available to shareholders are estimated on the basis of forecast results, which are part of the business plan approved by the Board of Directors.

The discount rates are determined by applying a capital asset pricing model-based approach, as well as considering quantitative and qualitative inputs from both internal and external analysts and the view of management. They also take into account regional differences in risk-free rates at the level of the individual CGUs. In line with discount rates, long-term growth rates are determined at the regional level based on nominal GDP growth rate forecasts.

Key assumptions used to determine the recoverable amounts of each CGU are tested for sensitivity by applying a reasonably possible change to those assumptions. Forecast earnings available to shareholders were changed by 20%, the discount rates were changed by 1.5 percentage points, and the long-term growth rates were changed by 0.75 percentage points. Under all scenarios, reasonably possible changes in key assumptions did not result in an impairment of goodwill or intangible assets reported by Global Wealth Management Americas, Global Wealth Management Switzerland and International, and Asset Management.

If the estimated earnings and other assumptions in future periods deviate from the current outlook, the value of goodwill attributable to Global Wealth Management Americas, Global Wealth Management Switzerland and International, and Asset Management may become impaired in the future, giving rise to losses in the income statement. Recognition of any impairment of goodwill would reduce International Financial Reporting Standards equity and net profit. It would not affect cash flows and, as goodwill is required to be deducted from capital under the Basel III capital framework, no effect would be expected on the Group's capital ratios.

Discount and growth rates

In %	Discount rates		Growth rates	
	31.12.22	31.12.21	31.12.22	31.12.21
Global Wealth Management Americas	10.5	9.5	3.8	4.0
Global Wealth Management Switzerland and International	9.4	8.5	3.6	3.1
Asset Management	9.5	8.5	3.4	2.9

Note 12 Goodwill and intangible assets (continued)

<i>USD m</i>	Goodwill	Intangible assets ¹	2022	2021
Historical cost				
Balance at the beginning of the year	6,126	1,612	7,739	7,865
Additions	0	0	0	1
Disposals ²	(22)	0	(22)	(3)
Write-offs	0	0	0	(41)
Foreign currency translation	(61)	(14)	(76)	(83)
Balance at the end of the year	<u>6,043</u>	<u>1,598</u>	<u>7,641</u>	<u>7,739</u>
Accumulated amortization and impairment				
Balance at the beginning of the year		1,360	1,360	1,385
Amortization		26	26	31
Impairment / (reversal of impairment)		(1)	(1)	(1)
Write-offs		0	0	(41)
Foreign currency translation		(11)	(11)	(13)
Balance at the end of the year		<u>1,374</u>	<u>1,374</u>	<u>1,360</u>
Net book value at the end of the year	<u>6,043</u>	<u>224</u>	<u>6,267</u>	<u>6,378</u>
<i>of which: Global Wealth Management Americas</i>	3,709	31	3,740	3,760
<i>of which: Global Wealth Management Switzerland and International</i>	1,166	59	1,225	1,276
<i>of which: Asset Management</i>	1,167	0	1,167	1,202
<i>of which: Investment Bank</i>	<u>0</u>	<u>135</u>	<u>135</u>	<u>139</u>

- 1 Intangible assets mainly include customer relationships, contractual rights and the fully amortized branch network intangible asset recognized in connection with the acquisition of PaineWebber Group, Inc.
- 2 Reflects the derecognition of goodwill allocated to businesses that have been disposed of, in accordance with IAS 36 requirements.

The table below presents estimated aggregated amortization expenses for intangible assets.

<i>USD m</i>	Intangible assets
Estimated aggregated amortization expenses for:	
2023	26
2024	24
2025	23
2026	23
2027	22
Thereafter	104
Not amortized due to indefinite useful life	2
Total	<u>224</u>

Note 13 Other assets

a) Other financial assets measured at amortized cost

<i>USD m</i>	31.12.22	31.12.21
Debt securities	<u>44,594</u>	18,858
Loans to financial advisors	2,611	2,453
Fee- and commission-related receivables	1,812	1,972
Finance lease receivables	1,315	1,356
Settlement and clearing accounts	1,175	455
Accrued interest income	1,259	520
Other	499	594
Total other financial assets measured at amortized cost	<u>53,264</u>	<u>26,209</u>

Debt securities increased by USD 25.7bn compared with 31 December 2021, largely reflecting shifts from cash into securities within UBS's high-quality liquid asset portfolio as spreads widened. In addition, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost in 2022.

- › **Refer to Note 1b for more information**

Note 13 Other assets (continued)

b) Other non-financial assets

<i>USD m</i>	31.12.22	31.12.21
Precious metals and other physical commodities	4,471	5,258
Deposits and collateral provided in connection with litigation, regulatory and similar matters ¹	2,205	1,526
Prepaid expenses	1,076	1,108
VAT, withholding tax and other tax receivables	1,468	638
Properties and other non-current assets held for sale	369	32
Assets of disposal group held for sale ²		1,093
Other	578	621
Total other non-financial assets	10,166	10,277

1 Refer to Note 17 for more information.

2 Refer to Note 29 for more information.

Note 14 Customer deposits

<i>USD m</i>	31.12.22	31.12.21
Demand deposits	180,822	246,417
Retail savings / deposits	149,310	133,354
Sweep deposits	69,223	113,870
Time deposits ¹	125,696	48,365
Total customer deposits	525,051	542,007

1 Includes customer deposits in UBS AG Jersey Branch placed by UBS Switzerland AG on behalf of its clients.

Increases in interest rates during the year resulted in significant shifts from demand deposits to time deposits.

Note 15 Debt issued designated at fair value

<i>USD m</i>	31.12.22	31.12.21
Issued debt instruments		
Equity-linked ¹	41,901	47,059
Rates-linked	16,276	16,369
Credit-linked	2,170	1,723
Fixed-rate	6,538	2,868
Commodity-linked	4,294	2,911
Other	2,459	2,868
<i>of which: debt that contributes to total loss-absorbing capacity</i>	<i>1,959</i>	<i>2,136</i>
Total debt issued designated at fair value	73,638	73,799
<i>of which: issued by UBS AG with original maturity greater than one year²</i>	<i>57,750</i>	<i>57,967</i>

1 Includes investment fund unit-linked instruments issued.

2 Based on original contractual maturity without considering any early redemption features. As of 31 December 2022, 100% of the balance was unsecured (31 December 2021: 100%).

Note 16 Debt issued measured at amortized cost

<i>USD m</i>	31.12.22	31.12.21
Short-term debt¹	29,676	43,098
Senior unsecured debt that contributes to total loss-absorbing capacity (TLAC)	42,073	38,984
Senior unsecured debt other than TLAC	17,892	27,590
<i>of which: issued by UBS AG with original maturity greater than one year</i>	17,892	23,307
Covered bonds	0	1,389
Subordinated debt	16,017	18,640
<i>of which: eligible as high-trigger loss-absorbing additional tier 1 capital instruments</i>	9,882	11,052
<i>of which: eligible as low-trigger loss-absorbing additional tier 1 capital instruments</i>	1,189	2,425
<i>of which: eligible as low-trigger loss-absorbing tier 2 capital instruments</i>	2,422	2,596
<i>of which: eligible as non-Basel III-compliant tier 2 capital instruments</i>	536	547
Debt issued through the Swiss central mortgage institutions	8,962	9,454
Long-term debt²	84,945	96,057
Total debt issued measured at amortized cost³	114,621	139,155

- Debt with an original contractual maturity of less than one year, includes mainly certificates of deposit and commercial paper.
- Debt with an original contractual maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features.
- Net of bifurcated embedded derivatives, the fair value of which was not material for the periods presented.

The Group uses interest rate and foreign exchange derivatives to manage the risks inherent in certain debt instruments held at amortized cost. In some cases, the Group applies hedge accounting for interest rate risk as discussed in item 2j in Note 1a and Note 25. As a result of applying hedge accounting, the life-to-date adjustment to the carrying amount of debt issued was a decrease of USD 6.1bn as of 31 December 2022 and an increase of USD 0.5bn as of 31 December 2021, reflecting changes in fair value due to interest rate movements.

Subordinated debt consists of unsecured debt obligations that are contractually subordinated in right of payment to all other present and future non-subordinated obligations of the respective issuing entity. All of the subordinated debt instruments outstanding as of 31 December 2022 pay a fixed rate of interest.

› Refer to Note 23 for maturity information

Note 17 Provisions and contingent liabilities

a) Provisions

The table below presents an overview of total provisions.

<i>USD m</i>	31.12.22	31.12.21
Provisions other than provisions for expected credit losses	3,042	3,322
Provisions for expected credit losses ¹	201	196
Total provisions	3,243	3,518

- Refer to Note 9 for more information about ECL provisions recognized for off-balance sheet financial instruments and credit lines.

The following table presents additional information for provisions other than provisions for expected credit losses.

<i>USD m</i>	Litigation, regulatory and similar matters ¹	Restructuring	Other ³	Total 2022
Balance at the beginning of the year	2,798	172	352	3,322
Increase in provisions recognized in the income statement	406	231	53	690
Release of provisions recognized in the income statement	(58)	(25)	(36)	(118)
Provisions used in conformity with designated purpose	(470)	(243)	(32)	(745)
Capitalized reinstatement costs	0	0	1	1
Foreign currency translation / unwind of discount	(91)	(5)	(12)	(108)
Balance at the end of the year	2,586	130²	326	3,042

- Consists of provisions for losses resulting from legal, liability and compliance risks.
- Consists of personnel-related restructuring provisions of USD 102m as of 31 December 2022 (31 December 2021: USD 125m) and provisions for onerous contracts of USD 28m as of 31 December 2022 (31 December 2021: USD 47m).

3 Mainly includes provisions related to real estate, employee benefits and operational risks.

Restructuring provisions relate to personnel-related provisions and onerous contracts. Personnel-related restructuring provisions are generally used within a short period of time. The level of personnel-related provisions can change when natural staff attrition reduces the number of people affected by a restructuring event, and therefore results in lower estimated costs. Onerous contracts for property are recognized when UBS is committed to pay for non-lease components, such as utilities, service charges, taxes and maintenance, when a property is vacated or not fully recovered from subtenants.

Information about provisions and contingent liabilities in respect of litigation, regulatory and similar matters, as a class, is included in Note 17b. There are no material contingent liabilities associated with the other classes of provisions.

Note 17 Provisions and contingent liabilities (continued)

b) Litigation, regulatory and similar matters

The Group operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this Note may refer to UBS Group AG and/or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties, and the outcome and the timing of resolution are often difficult to predict, particularly in the earlier stages of a case. There are also situations where the Group may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which the Group believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. The Group makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against the Group, but are nevertheless expected to be, based on the Group's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to such matters could be significant. Developments relating to a matter that occur after the relevant reporting period, but prior to the issuance of financial statements, which affect management's assessment of the provision for such matter (because, for example, the developments provide evidence of conditions that existed at the end of the reporting period), are adjusting events after the reporting period under IAS 10 and must be recognized in the financial statements for the reporting period.

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

In the case of certain matters below, we state that we have established a provision, and for the other matters, we make no such statement. When we make this statement and we expect disclosure of the amount of a provision to prejudice seriously our position with other parties in the matter because it would reveal what UBS believes to be the probable and reliably estimable outflow, we do not disclose that amount. In some cases we are subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which we do not state whether we have established a provision, either: (a) we have not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard; or (b) we have established a provision but expect disclosure of that fact to prejudice seriously our position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which we have established provisions, we are able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which we are able to estimate expected timing is immaterial relative to our current and expected levels of liquidity over the relevant time periods.

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in the "Provisions" table in Note 17a above. It is not practicable to provide an aggregate estimate of liability for our litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require UBS to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although UBS therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, UBS believes that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions.

Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. A guilty plea to, or conviction of, a crime could have material consequences for UBS. Resolution of regulatory proceedings may require UBS to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations, and may permit financial market utilities to limit, suspend or terminate UBS's participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining capital requirements. Information concerning our capital requirements and the calculation of operational risk for this purpose is included in the "Capital, liquidity and funding, and balance sheet" section of this report.

Note 17 Provisions and contingent liabilities (continued)

Provisions for litigation, regulatory and similar matters by business division and in Group Functions¹

<i>USD m</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total 2022
Balance at the beginning of the year	<u>1,338</u>	<u>181</u>	<u>8</u>	<u>310</u>	<u>962</u>	<u>2,798</u>
Increase in provisions recognized in the income statement	268	2	1	129	6	406
Release of provisions recognized in the income statement	(23)	(15)	0	(8)	(12)	(58)
Provisions used in conformity with designated purpose	(331)	0	0	(115)	(23)	(470)
Reclassifications	0	0	0	4	(4)	0
Foreign currency translation / unwind of discount	(70)	(9)	0	(11)	0	(91)
Balance at the end of the year	<u>1,182</u>	<u>159</u>	<u>8</u>	<u>308</u>	<u>928</u>	<u>2,586</u>

1 Provisions, if any, for the matters described in items 3 and 4 of this Note are recorded in Global Wealth Management, and provisions, if any, for the matters described in item 2 are recorded in Group Functions. Provisions, if any, for the matters described in items 1 and 6 of this Note are allocated between Global Wealth Management and Personal & Corporate Banking, provisions, if any, for the matters described in item 5 are allocated between the Investment Bank and Group Functions, and provisions, if any, for the matters described in item 7 are allocated between Global Wealth Management and the Investment Bank.

1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions.

Since 2013, UBS (France) S.A., UBS AG and certain former employees have been under investigation in France in relation to UBS's cross-border business with French clients. In connection with this investigation, the investigating judges ordered UBS AG to provide bail ("caution") of EUR 1.1bn.

On 20 February 2019, the court of first instance returned a verdict finding UBS AG guilty of unlawful solicitation of clients on French territory and aggravated laundering of the proceeds of tax fraud, and UBS (France) S.A. guilty of aiding and abetting unlawful solicitation and of laundering the proceeds of tax fraud. The court imposed fines aggregating EUR 3.7bn on UBS AG and UBS (France) S.A. and awarded EUR 800m of civil damages to the French state. A trial in the French Court of Appeal took place in March 2021. On 13 December 2021, the Court of Appeal found UBS AG guilty of unlawful solicitation and aggravated laundering of the proceeds of tax fraud. The court ordered a fine of EUR 3.75m, the confiscation of EUR 1bn, and awarded civil damages to the French state of EUR 800m. UBS AG has filed an appeal with the French Supreme Court to preserve its rights. The notice of appeal enables UBS AG to thoroughly assess the verdict of the Court of Appeal and to determine next steps in the best interest of its stakeholders. The fine and confiscation imposed by the Court of Appeal are suspended during the appeal. The civil damages award has been paid to the French state (EUR 99m of which was deducted from the bail), subject to the result of UBS's appeal.

Our balance sheet at 31 December 2022 reflected provisions with respect to this matter in an amount of EUR 1.1bn (USD 1.2bn). The wide range of possible outcomes in this case contributes to a high degree of estimation uncertainty and the provision reflects our best estimate of possible financial implications, although actual penalties and civil damages could exceed (or may be less than) the provision amount.

Our balance sheet at 31 December 2022 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities (RMBS) and was a purchaser and seller of US residential mortgages.

In November 2018, the DOJ filed a civil complaint in the District Court for the Eastern District of New York. The complaint seeks unspecified civil monetary penalties under the Financial Institutions Reform, Recovery and Enforcement Act of 1989 related to UBS's issuance, underwriting and sale of 40 RMBS transactions in 2006 and 2007. UBS moved to dismiss the civil complaint in February 2019. In December 2019, the district court denied UBS's motion to dismiss.

Our balance sheet at 31 December 2022 reflected a provision with respect to matters described in this item 2 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

Note 17 Provisions and contingent liabilities (continued)

3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC (BMIS) investment fraud, UBS AG, UBS (Luxembourg) S.A. (now UBS Europe SE, Luxembourg branch) and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority (FINMA) and the Luxembourg Commission de Surveillance du Secteur Financier. Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds faced severe losses, and the Luxembourg funds are in liquidation. The documentation establishing both funds identifies UBS entities in various roles, including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members.

In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims against UBS entities, non-UBS entities and certain individuals, including current and former UBS employees, seeking amounts totaling approximately EUR 2.1bn, which includes amounts that the funds may be held liable to pay the trustee for the liquidation of BMIS (BMIS Trustee).

A large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff fraud. The majority of these cases have been filed in Luxembourg, where decisions that the claims in eight test cases were inadmissible have been affirmed by the Luxembourg Court of Appeal, and the Luxembourg Supreme Court has dismissed a further appeal in one of the test cases.

In the US, the BMIS Trustee filed claims against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2bn. In 2014, the US Supreme Court rejected the BMIS Trustee's motion for leave to appeal decisions dismissing all claims except those for the recovery of approximately USD 125m of payments alleged to be fraudulent conveyances and preference payments. In 2016, the bankruptcy court dismissed these claims against the UBS entities. In February 2019, the Court of Appeals reversed the dismissal of the BMIS Trustee's remaining claims, and the US Supreme Court subsequently denied a petition seeking review of the Court of Appeals' decision. The case has been remanded to the Bankruptcy Court for further proceedings.

4. Puerto Rico

Declines since 2013 in the market prices of Puerto Rico municipal bonds and of closed-end funds (funds) that are sole-managed and co-managed by UBS Trust Company of Puerto Rico and distributed by UBS Financial Services Incorporated of Puerto Rico (UBS PR) led to multiple regulatory inquiries, which in 2014 and 2015, led to settlements with the Office of the Commissioner of Financial Institutions for the Commonwealth of Puerto Rico, the US Securities and Exchange Commission (SEC) and the Financial Industry Regulatory Authority.

Since then, UBS clients in Puerto Rico who own the funds or Puerto Rico municipal bonds and/or who used their UBS account assets as collateral for UBS non-purpose loans filed customer complaints and arbitration demands seeking aggregate damages of USD 3.42bn, of which USD 3.37bn have been resolved through settlements, arbitration or withdrawal of claims. Allegations include fraud, misrepresentation and unsuitability of the funds and of the loans.

A shareholder derivative action was filed in 2014 against various UBS entities and current and certain former directors of the funds, alleging hundreds of millions of US dollars in losses in the funds. In 2021, the parties reached an agreement to settle this matter for USD 15m, subject to court approval.

In 2011, a purported derivative action was filed on behalf of the Employee Retirement System of the Commonwealth of Puerto Rico (System) against over 40 defendants, including UBS PR, which was named in connection with its underwriting and consulting services. Plaintiffs alleged that defendants violated their purported fiduciary duties and contractual obligations in connection with the issuance and underwriting of USD 3bn of bonds by the System in 2008 and sought damages of over USD 800m. In 2016, the court granted the System's request to join the action as a plaintiff. In 2022, a federal district court enjoined the plaintiffs from proceeding with the action on the grounds it impermissibly conflicted with Puerto Rico's approved Plan of Adjustment.

Beginning in 2015, certain agencies and public corporations of the Commonwealth of Puerto Rico (Commonwealth) defaulted on certain interest payments on Puerto Rico bonds. In 2016, US federal legislation created an oversight board with power to oversee Puerto Rico's finances and to restructure its debt. The oversight board has imposed a stay on the exercise of certain creditors' rights. In 2017, the oversight board placed certain of the bonds into a bankruptcy-like proceeding under the supervision of a Federal District Judge.

In May 2019, the oversight board filed complaints in Puerto Rico federal district court bringing claims against financial, legal and accounting firms that had participated in Puerto Rico municipal bond offerings, including UBS, seeking a return of underwriting and swap fees paid in connection with those offerings. UBS estimates that it received approximately USD 125m in fees in the relevant offerings.

Note 17 Provisions and contingent liabilities (continued)

In August 2019, and February and November 2020, four US insurance companies that insured issues of Puerto Rico municipal bonds sued UBS and several other underwriters of Puerto Rico municipal bonds in three separate cases. The actions collectively seek recovery of an aggregate of USD 955m in damages from the defendants. The plaintiffs in these cases claim that defendants failed to reasonably investigate financial statements in the offering materials for the insured Puerto Rico bonds issued between 2002 and 2007, which plaintiffs argue they relied upon in agreeing to insure the bonds notwithstanding that they had no contractual relationship with the underwriters. Defendants' motions to dismiss have been granted in all three cases; those decisions are being appealed by the plaintiffs.

Our balance sheet at 31 December 2022 reflected provisions with respect to matters described in this item 4 in amounts that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provisions that we have recognized.

5. Foreign exchange, LIBOR and benchmark rates, and other trading practices

Foreign exchange-related regulatory matters: Beginning in 2013, numerous authorities commenced investigations concerning possible manipulation of foreign exchange markets and precious metals prices. As a result of these investigations, UBS entered into resolutions with Swiss, US and United Kingdom regulators and the European Commission. UBS was granted conditional immunity by the Antitrust Division of the DOJ and by authorities in other jurisdictions in connection with potential competition law violations relating to foreign exchange and precious metals businesses.

Foreign exchange-related civil litigation: Putative class actions have been filed since 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. UBS has resolved US federal court class actions relating to foreign currency transactions with the defendant banks and persons who transacted in foreign exchange futures contracts and options on such futures under a settlement agreement that provides for UBS to pay an aggregate of USD 141m and provide cooperation to the settlement classes. Certain class members have excluded themselves from that settlement and have filed individual actions in US and English courts against UBS and other banks, alleging violations of US and European competition laws and unjust enrichment. UBS and the other banks have reached an agreement in principle to resolve those individual matters.

In 2015, a putative class action was filed in federal court against UBS and numerous other banks on behalf of persons and businesses in the US who directly purchased foreign currency from the defendants and alleged co-conspirators for their own end use. In March 2017, the court granted UBS's (and the other banks') motions to dismiss the complaint. The plaintiffs filed an amended complaint in August 2017. In March 2018, the court denied the defendants' motions to dismiss the amended complaint. In March 2022, the court denied plaintiffs' motion for class certification.

LIBOR and other benchmark-related regulatory matters: Numerous government agencies conducted investigations regarding potential improper attempts by UBS, among others, to manipulate LIBOR and other benchmark rates at certain times. UBS reached settlements or otherwise concluded investigations relating to benchmark interest rates with the investigating authorities. UBS was granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and the Swiss Competition Commission (WEKO), in connection with potential antitrust or competition law violations related to certain rates. However, UBS has not reached a final settlement with WEKO, as the Secretariat of WEKO has asserted that UBS does not qualify for full immunity.

LIBOR and other benchmark-related civil litigation: A number of putative class actions and other actions are pending in the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending in the US and in other jurisdictions are a number of other actions asserting losses related to various products whose interest rates were linked to LIBOR and other benchmarks, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. The complaints allege manipulation, through various means, of certain benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR, SGD SIBOR and SOR and Australian BBSW, and seek unspecified compensatory and other damages under varying legal theories.

Note 17 Provisions and contingent liabilities (continued)

USD LIBOR class and individual actions in the US: In 2013 and 2015, the district court in the USD LIBOR actions dismissed, in whole or in part, certain plaintiffs' antitrust claims, federal racketeering claims, CEA claims, and state common law claims, and again dismissed the antitrust claims in 2016 following an appeal. In December 2021, the Second Circuit affirmed the district court's dismissal in part and reversed in part and remanded to the district court for further proceedings. The Second Circuit, among other things, held that there was personal jurisdiction over UBS and other foreign defendants based on allegations that at least one alleged co-conspirator undertook an overt act in the United States. Separately, in 2018, the Second Circuit reversed in part the district court's 2015 decision dismissing certain individual plaintiffs' claims and certain of these actions are now proceeding. In 2018, the district court denied plaintiffs' motions for class certification in the USD class actions for claims pending against UBS, and plaintiffs sought permission to appeal that ruling to the Second Circuit. In July 2018, the Second Circuit denied the petition to appeal of the class of USD lenders and in November 2018 denied the petition of the USD exchange class. In January 2019, a putative class action was filed in the District Court for the Southern District of New York against UBS and numerous other banks on behalf of US residents who, since 1 February 2014, directly transacted with a defendant bank in USD LIBOR instruments. The complaint asserts antitrust claims. The defendants moved to dismiss the complaint in August 2019. In March 2020 the court granted defendants' motion to dismiss the complaint in its entirety. Plaintiffs have appealed the dismissal. In March 2022, the Second Circuit dismissed the appeal because appellants, who had been substituted in to replace the original plaintiffs who had withdrawn, lacked standing to pursue the appeal. In August 2020, an individual action was filed in the Northern District of California against UBS and numerous other banks alleging that the defendants conspired to fix the interest rate used as the basis for loans to consumers by jointly setting the USD LIBOR rate and monopolized the market for LIBOR-based consumer loans and credit cards. Defendants moved to dismiss the complaint in September 2021. In September 2022, the court granted defendants' motion to dismiss the complaint in its entirety, while allowing plaintiffs the opportunity to file an amended complaint. Plaintiffs filed an amended complaint in October 2022, and defendants have moved to dismiss the amended complaint in November 2022.

Other benchmark class actions in the US:

Yen LIBOR / Euroyen TIBOR – In 2014, 2015 and 2017, the court in one of the Yen LIBOR / Euroyen TIBOR lawsuits dismissed certain of the plaintiffs' claims, including the plaintiffs' federal antitrust and racketeering claims. In August 2020, the court granted defendants' motion for judgment on the pleadings and dismissed the lone remaining claim in the action as impermissibly extraterritorial. In October 2022, the appeals court affirmed the dismissal on multiple grounds. In 2017, the court dismissed the other Yen LIBOR / Euroyen TIBOR action in its entirety on standing grounds. In April 2020, the appeals court reversed the dismissal and in August 2020 plaintiffs in that action filed an amended complaint focused on Yen LIBOR. The court granted in part and denied in part defendants' motion to dismiss the amended complaint in September 2021. In August 2022, the court granted UBS's motion for reconsideration and dismissed the case against UBS.

CHF LIBOR – In 2017, the court dismissed the CHF LIBOR action on standing grounds and failure to state a claim. Plaintiffs filed an amended complaint, and the court granted a renewed motion to dismiss in September 2019. Plaintiffs appealed. In September 2021, the Second Circuit granted the parties' joint motion to vacate the dismissal and remand the case for further proceedings. Plaintiffs filed a third amended complaint in November 2022 and defendants have moved to dismiss the amended complaint in January 2023.

EURIBOR – In 2017, the court in the EURIBOR lawsuit dismissed the case as to UBS and certain other foreign defendants for lack of personal jurisdiction. Plaintiffs have appealed.

SIBOR / SOR – In October 2018, the court in the SIBOR / SOR action dismissed all but one of plaintiffs' claims against UBS. Plaintiffs filed an amended complaint, and the court granted a renewed motion to dismiss in July 2019. Plaintiffs appealed. In March 2021, the Second Circuit reversed the dismissal. Plaintiffs filed an amended complaint in October 2021, which defendants moved to dismiss in November 2021. In March 2022, plaintiffs reached a settlement in principle with the remaining defendants, including UBS. The court granted final approval of the settlement in November 2022.

BBSW – In November 2018, the court dismissed the BBSW lawsuit as to UBS and certain other foreign defendants for lack of personal jurisdiction. Plaintiffs filed an amended complaint in April 2019, which UBS and other defendants moved to dismiss in May 2019. In February 2020, the court granted in part and denied in part defendants' motions to dismiss the amended complaint. In August 2020, UBS and other BBSW defendants joined a motion for judgment on the pleadings, which the court denied in May 2021. In February 2022, plaintiffs reached a settlement in principle with the remaining defendants, including UBS. The court granted final approval of the settlement in November 2022.

GBP LIBOR – The court dismissed the GBP LIBOR action in August 2019. Plaintiffs have appealed.

Note 17 Provisions and contingent liabilities (continued)

Government bonds: Putative class actions have been filed since 2015 in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. A consolidated complaint was filed in 2017 in the US District Court for the Southern District of New York alleging that the banks colluded with respect to, and manipulated prices of, US Treasury securities sold at auction and in the secondary market and asserting claims under the antitrust laws and for unjust enrichment. Defendants' motions to dismiss the consolidated complaint were granted in March 2021. Plaintiffs filed an amended complaint, which defendants moved to dismiss in June 2021. In March 2022, the court granted defendants' motion to dismiss that complaint. Plaintiffs have appealed the dismissal. Similar class actions have been filed concerning European government bonds and other government bonds.

In May 2021, the European Commission issued a decision finding that UBS and six other banks breached European Union antitrust rules in 2007–2011 relating to European government bonds. The European Commission fined UBS EUR 172m. UBS is appealing the amount of the fine.

With respect to additional matters and jurisdictions not encompassed by the settlements and orders referred to above, our balance sheet at 31 December 2022 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

6. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third-party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver. FINMA issued a supervisory note to all Swiss banks in response to the Supreme Court decision. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and continues to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among other things, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

Our balance sheet at 31 December 2022 reflected a provision with respect to matters described in this item 6 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

7. Communications recordkeeping

The SEC and CFTC conducted investigations of UBS and other financial institutions regarding compliance with records preservation requirements relating to business communications sent over unapproved electronic messaging channels. UBS cooperated with the investigations, and, in September 2022, UBS agreed to pay civil monetary penalties of USD 125m to the SEC and USD 75m to the CFTC to resolve these matters.

Note 18 Other liabilities

a) Other financial liabilities measured at amortized cost

<i>USD m</i>	31.12.22	31.12.21
Other accrued expenses	1,760	1,876
Accrued interest expenses	1,949	1,094
Settlement and clearing accounts	1,075	1,304
Lease liabilities	3,334	3,558
Other	1,457	1,167
Total other financial liabilities measured at amortized cost	9,575	9,001

b) Other financial liabilities designated at fair value

<i>USD m</i>	31.12.22	31.12.21
Financial liabilities related to unit-linked investment contracts	13,221	21,466
Securities financing transactions	15,333	6,377
Over-the-counter debt instruments and other	1,684	2,231
Total other financial liabilities designated at fair value	30,237	30,074

c) Other non-financial liabilities

<i>USD m</i>	31.12.22	31.12.21
Compensation related liabilities	6,822	7,257
<i>of which: Deferred Contingent Capital Plan</i>	1,614	1,628
<i>of which: financial advisor compensation plans</i>	1,463	1,512
<i>of which: other compensation plans</i>	2,680	2,846
<i>of which: net defined benefit liability</i>	469	633
<i>of which: other compensation-related liabilities¹</i>	596	638
Current tax liabilities	1,071	1,398
Deferred tax liabilities	236	300
VAT, withholding tax and other tax payables	592	590
Deferred income	235	240
Liabilities of disposal group held for sale ²		1,298
Other	84	68
Total other non-financial liabilities	9,040	11,151

1 Includes liabilities for payroll taxes and untaken vacation.

2 Refer to Note 29 for more information.

Additional information

Note 19 Expected credit loss measurement

a) Expected credit losses in the period

Total net credit loss expenses were USD 29m in 2022, reflecting net credit loss expenses of USD 29m related to stage 1 and 2 positions and USD 0m net credit loss expenses related to credit-impaired (stage 3) positions.

Stage 1 and 2 expected credit loss (ECL) expenses of USD 29m include USD 123m expenses related to scenario and parameter updates and USD 13m related to other book quality and size changes, partly offset by USD 77m post-model adjustment (PMA) releases and USD 30m releases related to model changes. Lending to corporate clients not secured by mortgages contributed USD 21m, mainly driven by scenario effects related to the downward revision of GDP and higher interest rate assumptions in the newly introduced *stagflationary geopolitical crisis scenario* (SGC). Lending secured by mortgages contributed USD 16m in expenses, mainly driven by scenario effects related to higher interest rate assumptions, especially from the SGC, and adverse house price assumptions from both applied downside scenarios. This was partly offset by releases from other lending of USD 9m.

- › **Refer to Note 19b for more information regarding changes to ECL models, scenarios, scenario weights and the post-model adjustment and to Note 19c for more information regarding the development of ECL allowances and provisions**

Stage 3 net expenses of USD 0m were recognized across a number of defaulted positions, with net expenses of USD 12m in Personal and Corporate Banking and USD 5m in Global Wealth Management, offset by releases of USD 18m in the Investment Bank, including a USD 28m release for a single airline-related counterparty, mainly due to improved cashflow assumptions, and USD 10m net expenses across a number of defaulted positions.

Credit loss expense / (release)

<i>USD m</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
For the year ended 31.12.22						
Stages 1 and 2	(5)	27	0	6	1	29
Stage 3	5	12	0	(18)	2	0
Total credit loss expense / (release)	0	39	0	(12)	3	29
For the year ended 31.12.21						
Stages 1 and 2	(28)	(62)	0	(34)	0	(123)
Stage 3	(1)	(24)	1	0	0	(25)
Total credit loss expense / (release)	(29)	(86)	1	(34)	0	(148)
For the year ended 31.12.20						
Stages 1 and 2	48	129	0	88	0	266
Stage 3	40	128	2	217	42	429
Total credit loss expense / (release)	88	257	2	305	42	694

Note 19 Expected credit loss measurement (continued)

b) Changes to ECL models, scenarios, scenario weights and key inputs

Refer to Note 1a for information about the principles governing expected credit loss (ECL) models, scenarios, scenario weights and key inputs applied.

Governance

Comprehensive cross-functional and cross-divisional governance processes are in place and are used to discuss and approve scenario updates and weights, to assess whether significant increases in credit risk resulted in stage transfers, to review model outputs and to reach conclusions regarding post-model adjustments.

Model changes

During 2022, the model review and enhancement process led to adjustments of the probability of default (PD), loss given default (LGD), and credit conversion factor (CCF) models, resulting in a USD 30m decrease in ECL allowances. This includes a decrease of USD 19m in Global Wealth Management affecting loans to financial advisors and specialized US lending portfolios and an USD 11m decrease in Personal & Corporate Banking related to lending to *large corporate clients* and *financial intermediaries & hedge funds*.

Scenario and key input updates

During 2022, the scenarios and related macroeconomic factors were updated from those applied at the end of 2021 by considering the prevailing economic and political conditions and uncertainty. The review focused on events that significantly changed the economic outlook during the year: the Russia–Ukraine war, with the subsequent effect on energy markets, the inflation outlook and economic growth in Europe, and rising global interest rates due to central banks' adoption of more restrictive monetary policies.

Baseline scenario: the projections of the baseline scenario, which are aligned to the economic and market assumptions used for UBS's business planning purposes, are broadly in line with external data, such as that from Bloomberg Consensus, Oxford Economics and the International Monetary Fund World Economic Outlook. The expectation for 2023 is that global growth stalls under the weight of monetary policy tightening, and continued pressure on real purchasing power due to high inflation – further fueled in Europe by the energy crisis and a lack of labor supply – even though unemployment rates are forecast to be higher than in 2022 and an energy crisis in Europe seems likely to be averted. Interest rates are expected to remain high, given the persistence of inflationary trends, leading to a less optimistic outlook for global house prices, which is cushioned in Switzerland by continued strong demand.

Global crisis scenario: The first hypothetical downside scenario, the global crisis scenario, is aligned with the Group's 2022 binding stress scenario and was updated in 2022 to reflect expected risks, resulting in minimal changes. It assumes that, while the global economy has returned to pre-pandemic levels and the immediate risks from COVID-19 have decreased, the associated disruptions and the consequences of the unprecedented monetary and fiscal stimulus measures will remain critical. Concerns regarding the sustainability of public debt, following the marked deterioration of fiscal positions, lead to a loss of confidence and market turbulence, while protectionism results in a decrease in global trade. Governments and central banks have limited scope to support the economies, and interest rate levels remain moderate. As a consequence, China suffers a hard landing which, combined with political, solvency and liquidity concerns, affects emerging markets significantly. A spillover effect leads to a contraction of the Eurozone, Swiss and US economies, as global demand is significantly affected. Given the severity of the macroeconomic impact, unemployment rates rise to historical highs and real estate sectors contract sharply.

Stagflationary geopolitical crisis scenario: The second downside scenario was changed during 2022. In light of the developments caused by Russia's invasion of Ukraine, the *mild global interest rate steepening scenario* was replaced by a *severe global interest rate steepening scenario* in the first quarter of 2022, as the beginning of the Russia–Ukraine war increased fears of higher inflation and a corresponding reaction by monetary authorities. In the second quarter of the year, the progression of the war and the enforcement of sanctions regimes led to a redesign of the scenario. The resulting *severe Russia–Ukraine conflict scenario* has similar dynamics as the severe global interest rate steepening scenario, but addressed specifically the prospect of rising energy costs, especially in Europe, with the consequences of lower growth and higher inflation rates. In the fourth quarter of 2022, UBS developed a new *stagflationary geopolitical crisis scenario* (SGC) and included this new scenario in the ECL calculation for year-end 2022 in lieu of the *severe Russia–Ukraine conflict scenario*. While the SGC scenario addresses similar risks as the *severe Russia–Ukraine conflict scenario*, it also covers additional and broader risks and therefore assumes more severe shocks. Geopolitical tensions cause an escalation of security concerns and undermine globalization. The ensuing economic regionalization leads to a surge in global commodity prices and further disruptions of supply chains and raises the specter of prolonged stagflation. The severe interest rate and adverse house price assumptions in the SGC scenario had a substantive impact on model-based ECL allowances for loans secured by mortgages in Switzerland and the US. These effects were partly offset by PMA releases related to loans secured by mortgages. Refer to the section below on "Scenario weights and post-model adjustments" for more details.

Asset price inflation scenario: The upside scenario is based on positive developments, such as an easing of geopolitical tensions across the globe and a rebound in Chinese economic growth. A combination of lower energy and commodity prices, effective monetary policies and easing supply chain disruptions helps reduce inflation. Improved consumer and business sentiment lead to an economic rebound with central banks able to normalize interest rates; asset prices increase significantly.

Note 19 Expected credit loss measurement (continued)

The table below details the key assumptions for the four scenarios applied as of 31 December 2022.

Scenario weights and post-model adjustments

Due to the less positive outlook compared with the assessment on 31 December 2021, the scenario weights changed during 2022. The upside scenario was allocated a 0% probability, and the previous 5% weight was added to the *baseline scenario*, now set at 60%. Following the introduction of the SGC, which was deemed to have a higher probability of occurring than the *global crisis scenario*, the weights were rebalanced. The SGC has a weight of 25% (compared with 10% for the *mild global interest rate steepening scenario* used as of 31 December 2021) and the weight of the *global crisis scenario* was reduced to 15% (from 30% as of 31 December 2021). The weights are also shown in the table below.

The scenarios and weight allocation were established in line with the general market sentiment that the short-term outlook is subdued and a recession in major markets is a strong probability. The downside risks in relation to inflation and monetary policy, as well as the availability and price of energy, mainly in Europe, are better reflected in our models compared with the uncertain developments caused by COVID-19 in recent years.

However, unquantifiable risks continue to be relevant, as the pandemic has not been overcome and the world may face new disruptions. Furthermore, the geopolitical situation worsened during 2022, and the impact on the world economy from escalations with unforeseeable consequences could be severe. In the near term, this uncertainty relates primarily to the development of the Russia–Ukraine war. Models, which are based on supportable statistical information from past experiences regarding interdependencies of macroeconomic factors and their implications for credit risk portfolios, cannot comprehensively reflect such extraordinary events, such as a pandemic or a fundamental change in the world political order. Rather than creating multiple additional scenarios to attempt gauging these risks and applying model parameters that lack supportable information and cannot be robustly validated, management continued to also apply PMAs.

These PMA took into account that more of the downside risks were modeled in 2022, particularly for lending secured by mortgages. The PMA amounted to USD 131m as of 31 December 2022 (31 December 2021: USD 224m). These remaining PMA for uncertainties on potentially unmodeled risk almost entirely relate to corporate lending portfolios in Personal & Corporate Banking and the Investment Bank.

Economic scenarios and weights applied

ECL scenario	Assigned weights in %	
	31.12.22	31.12.21
Asset price inflation	0.0	5.0
Baseline	60.0	55.0
Mild global interest rate steepening	0.0	10.0
Stagflationary geopolitical crisis	25.0	0.0
Global crisis	15.0	30.0

Scenario assumptions

31.12.22	One year				Three years cumulative			
	Asset price inflation	Baseline	Stagflationary geopolitical crisis	Global crisis	Asset price inflation	Baseline	Stagflationary geopolitical crisis	Global crisis
Real GDP growth (% change)								
United States	4.0	(0.3)	(4.8)	(6.4)	9.1	3.2	(4.4)	(1.8)
Eurozone	3.0	0.6	(5.6)	(8.5)	6.2	2.5	(5.7)	(8.3)
Switzerland	3.0	0.7	(4.8)	(6.7)	6.6	3.5	(4.9)	(3.7)
Consumer price index (% change)								
United States	2.5	2.6	10.0	(0.5)	8.1	6.5	15.8	1.2
Eurozone	2.3	5.0	9.6	(0.7)	7.4	9.6	14.8	(0.7)
Switzerland	2.1	1.6	5.8	(1.8)	6.2	3.9	10.7	(1.6)
Unemployment rate (end-of-period level, %)								
United States	3.0	3.9	9.2	10.0	3.0	5.3	11.8	9.4
Eurozone	6.0	7.0	10.9	11.9	6.0	7.1	12.2	13.0
Switzerland	1.7	2.3	4.3	4.4	1.5	2.6	5.1	4.9
Fixed income: 10-year government bonds (change in yields, basis points)								
USD	25.0	(5.6)	235.0	(326.0)	70.0	(13.2)	205.0	(291.1)
EUR	20.0	47.8	250.0	(270.6)	57.5	44.7	220.0	(246.5)
CHF	25.0	45.7	220.0	(209.7)	62.5	57.0	205.0	(159.6)
Equity indices (% change)								
S&P 500	20.0	7.4	(51.5)	(50.0)	51.7	22.8	(45.6)	(27.9)
EuroStoxx 50	17.0	17.2	(51.6)	(50.0)	42.9	29.2	(47.2)	(39.3)
SPI	14.0	5.6	(51.6)	(46.0)	37.9	19.3	(47.2)	(32.9)

Swiss real estate (% change)									
Single-Family Homes	6.6	1.1	(16.7)	(19.9)	14.0	2.3	(32.9)	(23.9)	
Other real estate (% change)									
United States (S&P / Case-Shiller)	7.8	(4.5)	(12.8)	(19.3)	19.1	(0.6)	(35.8)	(32.7)	
Eurozone (House Price Index)	<u>7.0</u>	<u>(2.7)</u>	<u>(8.4)</u>	<u>(8.9)</u>	<u>15.4</u>	<u>2.0</u>	<u>(14.7)</u>	<u>(17.5)</u>	

Note 19 Expected credit loss measurement (continued)

Scenario assumptions	One year				Three years cumulative			
	Asset price inflation	Baseline	Mild global interest rate steepening	Global crisis	Asset price inflation	Baseline	Mild global interest rate steepening	Global crisis
31.12.21								
Real GDP growth (% change)								
United States	9.1	4.4	(0.1)	(5.9)	17.8	10.1	1.8	(3.8)
Eurozone	9.4	3.9	(0.1)	(8.7)	17.3	7.5	0.9	(10.3)
Switzerland	5.5	2.4	(0.9)	(6.6)	13.1	5.8	(0.1)	(5.7)
Consumer price index (% change)								
United States	3.1	2.2	5.7	(1.2)	9.5	6.3	13.0	0.4
Eurozone	2.3	1.4	4.2	(1.3)	8.0	4.8	10.4	(1.7)
Switzerland	1.8	0.3	3.5	(1.8)	6.1	1.7	9.0	(1.6)
Unemployment rate (end-of-period level, %)								
United States	3.0	3.9	6.1	10.9	3.0	3.5	7.2	10.8
Eurozone	6.2	7.4	8.7	12.9	6.0	7.2	9.1	15.1
Switzerland	2.3	2.5	3.4	5.2	1.6	2.3	4.2	5.9
Fixed income: 10-year government bonds (change in yields, basis points)								
USD	50.0	16.5	259.2	(50.0)	170.0	41.2	329.2	(15.0)
EUR	40.0	11.1	283.8	(35.0)	140.0	34.9	349.3	(25.0)
CHF	50.0	12.1	245.5	(70.0)	150.0	34.4	307.3	(35.0)
Equity indices (% change)								
S&P 500	12.0	14.1	(27.0)	(50.2)	35.5	24.7	(21.8)	(40.1)
EuroStoxx 50	16.0	12.3	(23.4)	(57.6)	41.6	20.7	(19.9)	(50.4)
SPI	14.0	12.1	(22.9)	(53.6)	37.9	19.1	(19.6)	(44.2)
Swiss real estate (% change)								
Single-Family Homes	5.1	4.4	(4.3)	(17.0)	15.5	7.4	(8.8)	(30.0)
Other real estate (% change)								
United States (S&P / Case–Shiller)	10.0	3.5	(2.3)	(9.5)	21.7	7.1	(8.7)	(26.3)
Eurozone (House Price Index)	8.4	5.1	(4.0)	(5.4)	17.8	9.6	(7.6)	(10.8)

c) Development of ECL allowances and provisions

The ECL allowances and provisions recognized in the period are impacted by a variety of factors, such as:

- the effect of selecting and updating forward-looking scenarios and the respective weights;
- origination of new instruments during the period;
- the effect of passage of time (lower residual lifetime PD and the effect of discount unwind) as the ECL on an instrument for the remaining lifetime decreases (all other factors remaining the same);
- derecognition of instruments in the period;
- change in individual asset quality of instruments;
- movements from a maximum 12-month ECL to the recognition of lifetime ECL (and vice versa) following transfers between stages 1 and 2;
- movements from stages 1 and 2 to stage 3 (credit-impaired status) when default has become certain and PD increases to 100% (or vice versa);
- changes in models or updates to model parameters;
- write-off; and
- foreign exchange translations for assets denominated in foreign currencies.

Note 19 Expected credit loss measurement (continued)

The table below explains the changes in the ECL allowances and provisions for on- and off-balance sheet financial instruments and credit lines in scope of ECL requirements between the beginning and the end of the period due to the factors listed above.

Development of ECL allowances and provisions				
<i>USD m</i>	Total	Stage 1	Stage 2	Stage 3
Balance as of 31 December 2021	(1,165)	(282)	(220)	(662)
Net movement from new and derecognized transactions¹	(7)	(21)	16	(2)
<i>of which: Private clients with mortgages</i>	(6)	(6)	0	0
<i>of which: Real estate financing</i>	(3)	(5)	2	0
<i>of which: Large corporate clients</i>	8	(1)	11	(2)
<i>of which: SME clients</i>	(1)	(1)	0	0
<i>of which: Other</i>	(6)	(8)	3	0
<i>of which: Financial intermediaries and hedge funds</i>	0	(2)	2	0
<i>of which: Loans to financial advisors</i>	0	0	0	0
Remeasurements with stage transfers²	(65)	20	(39)	(46)
<i>of which: Private clients with mortgages</i>	(10)	3	(12)	0
<i>of which: Real estate financing</i>	7	(1)	8	0
<i>of which: Large corporate clients</i>	(33)	16	(28)	(21)
<i>of which: SME clients</i>	(23)	2	(2)	(22)
<i>of which: Other</i>	(6)	1	(4)	(3)
<i>of which: Financial intermediaries and hedge funds</i>	0	0	0	0
<i>of which: Loans to financial advisors</i>	1	2	(1)	0
Remeasurements without stage transfers³	13	(8)	(27)	48
<i>of which: Private clients with mortgages</i>	(12)	5	(18)	1
<i>of which: Real estate financing</i>	13	3	10	0
<i>of which: Large corporate clients</i>	32	(11)	2	41
<i>of which: SME clients</i>	(6)	(10)	(9)	14
<i>of which: Other</i>	(15)	5	(12)	(8)
<i>of which: Sovereigns</i>	(8)	0	(8)	0
<i>of which: Loans to financial advisors</i>	(3)	3	(1)	(6)
Model changes⁴	30	29	1	0
Movements with profit or loss impact⁵	(29)	20	(49)	0
Movements without profit or loss impact (write-off, FX and other)⁶	104	3	1	99
Balance as of 31 December 2022	(1,091)	(259)	(267)	(564)

- 1 Represents the increase and decrease in allowances and provisions resulting from financial instruments (including guarantees and facilities) that were newly originated, purchased or renewed and from the final derecognition of loans or facilities on their maturity date or earlier.
- 2 Represents the remeasurement between 12-month and lifetime ECL due to stage transfers.
- 3 Represents the change in allowances and provisions related to changes in model inputs or assumptions, including changes in forward-looking macroeconomic conditions, changes in the exposure profile, PD and LGD changes, and unwinding of the time value.
- 4 Represents the change in the allowances and provisions related to changes in models and methodologies.
- 5 Includes ECL movements from new and derecognized transactions, remeasurement changes, model and methodology changes.
- 6 Represents the decrease in allowances and provisions resulting from write-offs of the ECL allowance against the gross carrying amount when all or part of a financial asset is deemed uncollectible or forgiven and movements in foreign exchange rates.

Movements with profit or loss impact: Stages 1 and 2 ECL allowances and provisions increased on a net basis by USD 29m:

- *Net movement from new and derecognized transactions* includes USD 21m stage 1 expenses and USD 16m stage 2 releases: Stage 1 expenses are primarily driven by new loans secured by real estate. The residual effect is spread across lending segments. Stage 2 releases are largely driven by redemption of corporate loans in the Investment Bank.
- *Remeasurements with stage transfers* include USD 20m releases in stage 1 and USD 39m expenses in stage 2. This mainly includes the transfer of a few large corporate lending transactions in the Investment Bank from stage 1 to 2 (i.e., releases in stage 1 and related but generally higher expenses in stage 2), driven by rating downgrades and scenario effects.
- *Remeasurements without stage transfers* include stage 1 expenses of USD 8m and stage 2 expenses of USD 27m. These expenses of USD 35m relate to large and SME corporate lending (USD 28m), substantially due to scenario effects, and to a single sovereign counterparty (USD 8m).
- Model changes: refer to Note 19b for more information.

Movements without profit or loss impact: Stage 3 allowances decreased by USD 99m almost entirely due to write-offs of USD 95m.

Note 19 Expected credit loss measurement (continued)

Development of ECL allowances and provisions				
<i>USD m</i>	Total	Stage 1	Stage 2	Stage 3
Balance as of 31 December 2020	(1,468)	(306)	(333)	(829)
Net movement from new and derecognized transactions¹	(59)	(72)	13	0
<i>of which: Private clients with mortgages</i>	(7)	(10)	3	0
<i>of which: Real estate financing</i>	(7)	(11)	4	0
<i>of which: Large corporate clients</i>	(13)	(21)	7	0
<i>of which: SME clients</i>	(8)	(8)	0	0
<i>of which: Other</i>	(24)	(23)	(2)	0
<i>of which: Financial intermediaries and hedge funds</i>	(21)	(18)	(4)	0
<i>of which: Loans to financial advisors</i>	0	(1)	1	0
Remeasurements with stage transfers²	(40)	8	0	(49)
<i>of which: Private clients with mortgages</i>	(9)	4	(13)	0
<i>of which: Real estate financing</i>	(3)	1	(4)	0
<i>of which: Large corporate clients</i>	2	(2)	12	(8)
<i>of which: SME clients</i>	(27)	5	4	(36)
<i>of which: Other</i>	(3)	0	2	(4)
<i>of which: Financial intermediaries and hedge funds</i>	2	(1)	3	0
<i>of which: Loans to financial advisors</i>	0	1	(1)	0
Remeasurements without stage transfers³	203	55	74	74
<i>of which: Private clients with mortgages</i>	33	8	26	(1)
<i>of which: Real estate financing</i>	30	13	13	3
<i>of which: Large corporate clients</i>	44	5	21	17
<i>of which: SME clients</i>	53	(1)	1	53
<i>of which: Other</i>	44	29	14	2
<i>of which: Financial intermediaries and hedge funds</i>	27	15	12	0
<i>of which: Loans to financial advisors</i>	6	8	1	(3)
Model changes⁴	45	29	16	0
Movements with profit or loss impact⁵	148	19	104	25
Movements without profit or loss impact (write-off, FX and other)⁶	154	5	9	141
Balance as of 31 December 2021	(1,165)	(282)	(220)	(662)

- 1 Represents the increase and decrease in allowances and provisions resulting from financial instruments (including guarantees and facilities) that were newly originated, purchased or renewed and from the final derecognition of loans or facilities on their maturity date or earlier.
- 2 Represents the remeasurement between 12-month and lifetime ECL due to stage transfers.
- 3 Represents the change in allowances and provisions related to changes in model inputs or assumptions, including changes in forward-looking macroeconomic conditions, changes in the exposure profile, PD and LGD changes, and unwinding of the time value.
- 4 Represents the change in the allowances and provisions related to changes in models and methodologies.
- 5 Includes ECL movements from new and derecognized transactions, remeasurement changes, model and methodology changes.
- 6 Represents the decrease in allowances and provisions resulting from write-offs of the ECL allowance against the gross carrying amount when all or part of a financial asset is deemed uncollectible or forgiven and movements in foreign exchange rates.

As explained in Note 1a, the assessment of a significant increase in credit risk (SICR) considers a number of qualitative and quantitative factors to determine whether a stage transfer between stage 1 and stage 2 is required, although the primary assessment considers changes in PD based on rating analyses and economic outlook. Additionally, UBS takes into consideration counterparties that have moved to a credit watch list and those with payments that are at least 30 days past due.

ECL stage 2 (“significant deterioration in credit risk”) allowances / provisions as of 31 December 2022 – classification by trigger

<i>USD m</i>	Stage 2	<i>of which: PD layer</i>	<i>of which: watch list</i>	<i>of which: ≥30 days past due</i>
On- and off-balance sheet	(267)	(196)	(21)	(50)
<i>of which: Private clients with mortgages</i>	(107)	(83)	0	(25)
<i>of which: Real estate financing</i>	(23)	(18)	0	(5)
<i>of which: Large corporate clients</i>	(65)	(51)	(13)	0
<i>of which: SME clients</i>	(37)	(22)	(7)	(7)
<i>of which: Financial intermediaries and hedge funds</i>	(17)	(17)	0	0
<i>of which: Loans to financial advisors</i>	(2)	0	0	(2)
<i>of which: Credit cards</i>	(12)	0	0	(12)

of which: Other

(5)

(5)

0

0

Note 19 Expected credit loss measurement (continued)

d) Maximum exposure to credit risk

The tables below provide the Group's maximum exposure to credit risk for financial instruments subject to ECL requirements and the respective collateral and other credit enhancements mitigating credit risk for these classes of financial instruments.

The maximum exposure to credit risk includes the carrying amounts of financial instruments recognized on the balance sheet subject to credit risk and the notional amounts for off-balance sheet arrangements. Where information is available, collateral is presented at fair value. For other collateral, such as real estate, a reasonable alternative value is used. Credit enhancements, such as credit derivative contracts and guarantees, are included at their notional amounts. Both are capped at the maximum exposure to credit risk for which they serve as security. The "Risk management and control" section of this report describes management's view of credit risk and the related exposures, which can differ in certain respects from the requirements of International Financial Reporting Standards (IFRS).

Maximum exposure to credit risk

	31.12.22							
	Maximum exposure to credit risk	Collateral ^{1,2}			Credit enhancements ¹			Exposure to credit risk after collateral and credit enhancements
Cash collateral received		Collateralized by equity and debt instruments	Secured by real estate	Other collateral ³	Netting	Credit derivative contracts	Guarantees	
<i>USD bn</i>								
Financial assets measured at amortized cost on the balance sheet								
Cash and balances at central banks	169.4							169.4
Loans and advances to banks ⁴	14.8		0.0				0.1	14.7
Receivables from securities financing transactions measured at amortized cost	67.8	0.0	64.5		2.4			0.9
Cash collateral receivables on derivative instruments ^{5,6}	35.0					22.9		12.1
Loans and advances to customers	387.2	33.6	115.9	197.8	19.6		3.0	17.3
Other financial assets measured at amortized cost	53.3	0.1	0.5	0.0	1.3			51.3
Total financial assets measured at amortized cost	727.6	33.7	181.0	197.9	23.4	22.9	3.0	265.8
Financial assets measured at fair value through other comprehensive income – debt	2.2							2.2
Total maximum exposure to credit risk reflected on the balance sheet within the scope of ECL	729.8	33.7	181.0	197.9	23.4	22.9	3.0	268.0
Guarantees ⁷	22.1	1.2	9.3	0.1	2.0		1.8	7.7
Loan commitments ⁷	39.9	0.2	3.1	1.3	6.5		0.1	27.8
Forward starting transactions, reverse repurchase and securities borrowing agreements	3.8		3.8					0.0
Committed unconditionally revocable credit lines	41.4	0.2	8.2	6.0	6.2		0.5	20.2
Total maximum exposure to credit risk not reflected on the balance sheet within the scope of ECL	107.2	1.6	24.4	7.5	14.7	0.0	0.1	55.7

	31.12.21							
	Maximum exposure to credit risk	Collateral ^{1,2}			Credit enhancements ¹			Exposure to credit risk after collateral and credit enhancements
Cash collateral received		Collateralized by equity and debt instruments	Secured by real estate	Other collateral ³	Netting	Credit derivative contracts	Guarantees	
<i>USD bn</i>								
Financial assets measured at amortized cost on the balance sheet								
Cash and balances at central banks	192.8							192.8
Loans and advances to banks ⁴	15.5		0.1				0.1	15.3
Receivables from securities financing transactions measured at amortized cost	75.0	0.0	68.0		6.9			0.0

Cash collateral receivables on derivative instruments ^{5,6}	30.5					18.4			12.1
Loans and advances to customers	397.8	37.5	128.7	191.3	20.2			4.0	16.2
Other financial assets measured at amortized cost	26.2	0.2	0.1	0.0	1.3				24.6
Total financial assets measured at amortized cost	737.8	37.7	196.9	191.3	28.4	18.4	0.0	4.0	261.0
Financial assets measured at fair value through other comprehensive income – debt	8.8								8.8
Total maximum exposure to credit risk reflected on the balance sheet within the scope of ECL	746.6	37.7	196.9	191.3	28.4	18.4	0.0	4.0	269.8
Guarantees ⁷	20.9	1.3	6.5	0.2	2.5			2.3	8.1
Loan commitments ⁷	39.4	0.5	4.0	2.4	7.3		0.3	1.7	23.1
Forward starting transactions, reverse repurchase and securities borrowing agreements	1.4		1.4						0.0
Committed unconditionally revocable credit lines	40.7	0.3	9.0	6.2	3.9			0.5	20.9
Total maximum exposure to credit risk not reflected on the balance sheet within the scope of ECL	102.5	2.2	20.9	8.7	13.7	0.0	0.3	4.5	52.1

- 1 Of which: USD 1,372m for 31 December 2022 (31 December 2021: USD 1,443m) relates to total credit-impaired financial assets measured at amortized cost and USD 113m for 31 December 2022 (31 December 2021: USD 130m) to total off-balance sheet financial instruments and credit lines for credit-impaired positions.
- 2 Collateral arrangements generally incorporate a range of collateral, including cash, equity and debt instruments, real estate and other collateral. UBS applies a risk-based approach that generally prioritizes collateral according to its liquidity profile.
- 3 Includes but is not limited to life insurance contracts, inventory, mortgage loans, gold and other commodities.
- 4 Loans and advances to banks include amounts held with third-party banks on behalf of clients. The credit risk associated with these balances may be borne by those clients.
- 5 Included within Cash collateral receivables on derivative instruments are margin balances due from exchanges or clearing houses. Some of these margin balances reflect amounts transferred on behalf of clients who retain the associated credit risk.
- 6 The amount shown in the “Netting” column represents the netting potential not recognized on the balance sheet. Refer to Note 21 for more information.
- 7 The amount shown in the “Guarantees” column includes sub-participations.

Note 19 Expected credit loss measurement (continued)

e) Financial assets subject to credit risk by rating category

The table below shows the credit quality and the maximum exposure to credit risk based on the Group's internal credit rating system and year-end stage classification. Under IFRS 9, the credit risk rating reflects the Group's assessment of the probability of default of individual counterparties, prior to substitutions. The amounts presented are gross of impairment allowances.

› Refer to the “Risk management and control” section of this report for more details regarding the Group's internal grading system

Financial assets subject to credit risk by rating category

<i>USD m</i>		31.12.22							
Rating category ¹	0-1	2-3	4-5	6-8	9-13	Credit-impaired (defaulted)	Total gross carrying amount	ECL allowances	Net carrying amount (maximum exposure to credit risk)
Financial assets measured at amortized cost									
Cash and balances at central banks	168,525	877	0	0	56	0	169,457	(12)	169,445
<i>of which: stage 1</i>	168,525	877	0	0	0	0	169,402	0	169,402
<i>of which: stage 2</i>	0	0	0	0	56	0	56	(12)	44
Loans and advances to banks	862	12,257	860	440	379	0	14,798	(6)	14,792
<i>of which: stage 1</i>	862	12,257	860	440	378	0	14,797	(5)	14,792
<i>of which: stage 2</i>	0	0	0	0	1	0	1	(1)	1
<i>of which: stage 3</i>	0	0	0	0	0	0	0	0	0
Receivables from securities financing transactions measured at amortized cost	27,158	15,860	8,870	15,207	721	0	67,816	(2)	67,814
<i>of which: stage 1</i>	27,158	15,860	8,870	15,207	721	0	67,816	(2)	67,814
Cash collateral receivables on derivative instruments	10,613	12,977	7,138	4,157	147	0	35,033	0	35,032
<i>of which: stage 1</i>	10,613	12,977	7,138	4,157	147	0	35,033	0	35,032
Loans and advances to customers	6,491	214,473	68,356	74,732	21,939	2,012	388,003	(783)	387,220
<i>of which: stage 1</i>	6,491	212,980	66,114	68,034	16,605	0	370,224	(129)	370,095
<i>of which: stage 2</i>	0	1,493	2,242	6,698	5,334	0	15,767	(180)	15,587
<i>of which: stage 3</i>	0	0	0	0	0	2,012	2,012	(474)	1,538
Other financial assets measured at amortized cost	29,011	16,632	447	6,600	450	210	53,350	(86)	53,264
<i>of which: stage 1</i>	29,011	16,630	427	6,317	336	0	52,721	(17)	52,704
<i>of which: stage 2</i>	0	2	20	283	114	0	419	(6)	413
<i>of which: stage 3</i>	0	0	0	0	0	210	210	(63)	147
Total financial assets measured at amortized cost	242,660	273,076	85,671	101,136	23,693	2,222	728,457	(889)	727,568
On-balance sheet financial instruments									
Financial assets measured at FVOCI – debt instruments	1,307	840	0	92	0	0	2,239	0	2,239
Total on-balance sheet financial instruments	243,966	273,916	85,671	101,228	23,693	2,222	730,696	(889)	729,807

Off-balance sheet positions subject to expected credit loss by rating category

<i>USD m</i>		31.12.22							
Rating category ¹	0-1	2-3	4-5	6-8	9-13	Credit-impaired (defaulted)	Total off-balance sheet exposure (maximum exposure to credit risk)	ECL provisions	
Off-balance sheet financial instruments									
Guarantees	7,252	5,961	4,772	3,049	1,025	108	22,167	(48)	
<i>of which: stage 1</i>	7,252	5,917	3,812	2,229	596	0	19,805	(13)	
<i>of which: stage 2</i>	0	44	960	821	429	0	2,254	(9)	
<i>of which: stage 3</i>	0	0	0	0	0	108	108	(26)	
Irrevocable loan commitments	1,770	14,912	6,986	10,097	6,107	124	39,996	(111)	
<i>of which: stage 1</i>	1,770	14,789	6,818	9,625	4,529	0	37,531	(59)	
<i>of which: stage 2</i>	0	123	168	472	1,578	0	2,341	(52)	
<i>of which: stage 3</i>	0	0	0	0	0	124	124	0	

Forward starting reverse repurchase and securities borrowing agreements	2,781	2	11	1,007	0	0	3,801	0
Total off-balance sheet financial instruments	11,803	20,874	11,769	14,153	7,132	233	65,964	(159)
Credit lines								
Committed unconditionally revocable credit lines	2,288	15,918	9,247	10,162	3,739	36	41,390	(40)
<i>of which: stage 1</i>	<i>2,288</i>	<i>15,213</i>	<i>8,960</i>	<i>9,631</i>	<i>3,429</i>	<i>0</i>	<i>39,521</i>	<i>(32)</i>
<i>of which: stage 2</i>	<i>0</i>	<i>705</i>	<i>287</i>	<i>531</i>	<i>310</i>	<i>0</i>	<i>1,833</i>	<i>(8)</i>
<i>of which: stage 3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>36</i>	<i>36</i>	<i>0</i>
Irrevocable committed prolongation of existing loans	7	1,939	1,489	868	392	2	4,696	(2)
<i>of which: stage 1</i>	<i>7</i>	<i>1,938</i>	<i>1,411</i>	<i>864</i>	<i>380</i>	<i>0</i>	<i>4,600</i>	<i>(2)</i>
<i>of which: stage 2</i>	<i>0</i>	<i>1</i>	<i>78</i>	<i>4</i>	<i>11</i>	<i>0</i>	<i>94</i>	<i>0</i>
<i>of which: stage 3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>2</i>	<i>2</i>	<i>0</i>
Total credit lines	2,295	17,857	10,736	11,030	4,131	37	46,086	(42)

1 Refer to the “Internal UBS rating scale and mapping of external ratings” table in the “Risk management and control” section of this report for more information on rating categories.

Note 19 Expected credit loss measurement (continued)

Financial assets subject to credit risk by rating category

USD m

31.12.21

Rating category ¹	0-1	2-3	4-5	6-8	9-13	Credit-impaired (defaulted)	Total gross carrying amount	ECL allowances	Net carrying amount (maximum exposure to credit risk)
Financial assets measured at amortized cost									
Cash and balances at central banks	191,015	1,802	0	0	0	0	192,817	0	192,817
<i>of which: stage 1</i>	191,015	1,802	0	0	0	0	192,817	0	192,817
Loans and advances to banks	407	12,623	1,171	795	490	1	15,488	(8)	15,480
<i>of which: stage 1</i>	407	12,623	1,146	795	488	0	15,460	(7)	15,453
<i>of which: stage 2</i>	0	0	24	0	2	0	27	(1)	26
<i>of which: stage 3</i>	0	0	0	0	0	1	1	0	1
Receivables from securities financing transactions measured at amortized cost	34,386	11,267	10,483	17,440	1,439	0	75,014	(2)	75,012
<i>of which: stage 1</i>	34,386	11,267	10,483	17,440	1,439	0	75,014	(2)	75,012
Cash collateral receivables on derivative instruments	7,466	13,476	5,878	3,647	47	0	30,514	0	30,514
<i>of which: stage 1</i>	7,466	13,476	5,878	3,647	47	0	30,514	0	30,514
Loans and advances to customers	5,295	232,233	67,620	69,892	21,423	2,148	398,611	(850)	397,761
<i>of which: stage 1</i>	5,295	231,153	65,084	62,796	16,362	0	380,690	(126)	380,564
<i>of which: stage 2</i>	0	1,080	2,536	7,096	5,061	0	15,773	(152)	15,620
<i>of which: stage 3</i>	0	0	0	0	0	2,148	2,148	(572)	1,577
Other financial assets measured at amortized cost	12,564	6,702	321	6,072	394	264	26,318	(109)	26,209
<i>of which: stage 1</i>	12,564	6,693	307	5,863	317	0	25,745	(27)	25,718
<i>of which: stage 2</i>	0	10	13	209	77	0	309	(7)	302
<i>of which: stage 3</i>	0	0	0	0	0	264	264	(76)	189
Total financial assets measured at amortized cost	251,133	278,103	85,472	97,846	23,793	2,414	738,762	(969)	737,794
On-balance sheet financial instruments									
Financial assets measured at FVOCI – debt instruments	3,996	4,771	0	77	0	0	8,844	0	8,844
Total on-balance sheet financial instruments	255,130	282,874	85,472	97,923	23,793	2,414	747,606	(969)	746,638

Off-balance sheet positions subject to expected credit loss by rating category

USD m

31.12.21

Rating category ¹	0-1	2-3	4-5	6-8	9-13	Credit-impaired (defaulted)	Total off-balance sheet exposure (maximum exposure to credit risk)	ECL provisions
Off-balance sheet financial instruments								
Guarantees	4,457	7,064	4,535	3,757	1,009	150	20,972	(41)
<i>of which: stage 1</i>	4,457	7,037	4,375	3,075	752	0	19,695	(18)
<i>of which: stage 2</i>	0	27	160	682	258	0	1,127	(8)
<i>of which: stage 3</i>	0	0	0	0	0	150	150	(15)
Irrevocable loan commitments	2,797	14,183	7,651	8,298	6,502	46	39,478	(114)
<i>of which: stage 1</i>	2,797	13,917	7,416	7,127	5,840	0	37,097	(72)
<i>of which: stage 2</i>	0	266	235	1,171	663	0	2,335	(42)
<i>of which: stage 3</i>	0	0	0	0	0	46	46	0
Forward starting reverse repurchase and securities borrowing agreements	0	0	55	1,389	0	0	1,444	0
Total off-balance sheet financial instruments	7,254	21,247	12,241	13,444	7,512	196	61,894	(155)
Credit lines								
Committed unconditionally revocable credit lines	2,636	15,594	8,627	9,752	4,107	63	40,778	(38)
<i>of which: stage 1</i>	2,636	15,250	8,304	8,346	3,671	0	38,207	(28)
<i>of which: stage 2</i>	0	344	323	1,406	436	0	2,508	(10)
<i>of which: stage 3</i>	0	0	0	0	0	63	63	0
Irrevocable committed prolongation of existing loans	17	2,438	1,422	1,084	602	48	5,611	(3)
<i>of which: stage 1</i>	17	2,438	1,422	1,082	568	0	5,527	(3)

<i>of which: stage 2</i>	0	0	0	1	34	0	36	0
<i>of which: stage 3</i>	0	0	0	0	0	48	48	0
Total credit lines	2,653	18,032	10,049	10,836	4,709	111	46,390	(41)

1 Refer to the “Internal UBS rating scale and mapping of external ratings” table in the “Risk management and control” section of this report for more information on rating categories.

Note 19 Expected credit loss measurement (continued)

f) Sensitivity information

As outlined in Note 1a, ECL estimates involve significant uncertainties at the time they are made.

ECL models

The models applied to determine point-in-time PD and LGD rely on market and statistical data, which has been found to correlate well with historically observed defaults in sufficiently homogeneous segments. The risk sensitivities for each of the ECL reporting segments to such factors are summarized in Note 9.

Sustainability and climate risk

Sustainability and climate risk (SCR) may negatively affect clients or portfolios due to direct or indirect transition costs, or exposure to physical risks in locations likely to be impacted by climate change. Such effects could lead to a deterioration in credit worthiness, which in turn would have an impact on ECLs.

While some indicators that are more influenced by climate change (e.g., energy prices) are factored into the current PD models where they have demonstrated statistical relevance, UBS currently does not use a specific SCR scenario in addition to the four general economic scenarios applied to derive the weighted-average ECL. The rationale for the approach at this point in time is the significance of model risks and challenges in calibration and probability weight assessment given the paucity of data.

Instead, UBS focuses on the process of vetting clients and business transactions and takes individual actions, where transition risk is deemed to be a significant driver of a counterparty's credit worthiness. This review process may lead to a downward revision of the counterparty's credit rating, or the adoption of risk mitigating actions, and hence affect the individual contribution to ECLs.

At the portfolio level, UBS has started to use stress loss assumptions to assess the extent to which SCR may affect the quality of the loans extended to small and medium-sized entities and large corporate clients. Initial tests were based on a set of assumptions presented by external parties (such as the Bank of England). Such analysis undertaken during 2022 concluded that the counterparties are not expected to be significantly impacted by physical or transition risks, mainly as there are no material risk concentrations in high-risk sectors. The analysis of the corporate loan book has also shown that any potential significant impacts from transition costs or physical risks would materialize over a time horizon that exceeds in most cases the contractual lifetime of the underlying assets. Based on current information on regulatory developments, this would also apply to the portfolio of private clients' mortgages and real estate financing, given the long lead times for investments in upgrading the housing stock.

As a result of the aforementioned factors, it was assessed that the magnitude of any impact of SCR on the weighted-average ECL would not be material as of 31 December 2022. Therefore, no specific post-model adjustment was made in this regard.

- › **Refer to “Sustainability and climate risk” in the “Risk management and control” section of this report**
- › **Refer to “Our focus on sustainability and climate” in the “Our strategy, business model and environment” section of this report**
- › **Refer to “UBS AG consolidated supplemental disclosures required under SEC regulations” for the maturity profile of UBS core loan book**

Forward-looking scenarios

Depending on the scenario selection and related macroeconomic assumptions for the risk factors, the components of the relevant weighted-average ECL change. This is particularly relevant for interest rates, which can move in both directions under a given growth assumption, e.g., low growth with high interest rates in a stagflation scenario, versus low growth and falling interest rates in a recession. Management generally looks for scenario narratives that reflect the key risk drivers of a given credit portfolio.

As forecasting models are complex, due to the combination of multiple factors, simple what-if analyses involving a change of individual parameters do not necessarily provide realistic information on the exposure of segments to changes in the macroeconomy. Portfolio-specific analyses based on their key risk factors would also not be meaningful, as potential compensatory effects in other segments would be ignored. The table below indicates some sensitivities to ECLs, if a key macroeconomic variable for the forecasting period is amended across all scenarios with all other factors remaining unchanged.

Note 19 Expected credit loss measurement (continued)

Potential effect on stage 1 and stage 2 positions from changing key parameters as of 31 December 2022

<i>USD m</i>	100% Baseline	100% Stagflationary geopolitical crisis	100% Global crisis	Weighted average
Change in key parameters				
Fixed income: Government bonds (absolute change)				
-0.50%	(3)	(106)	(2)	(14)
+0.50%	4	124	2	17
+1.00%	8	264	10	37
Unemployment rate (absolute change)				
-1.00%	(4)	(138)	(24)	(23)
-0.50%	(2)	(78)	(13)	(12)
+0.50%	3	84	16	15
+1.00%	5	179	32	31
Real GDP growth (relative change)				
-2.00%	7	13	18	11
-1.00%	3	7	9	5
+1.00%	(3)	(7)	(9)	(5)
+2.00%	(5)	(13)	(18)	(10)
House Price Index (relative change)				
-5.00%	15	196	88	56
-2.50%	7	92	40	25
+2.50%	(4)	(83)	(35)	(19)
+5.00%	(7)	(157)	(65)	(36)
Equity (S&P500, EuroStoxx, SMI) (relative change)				
-10.00%	4	7	6	5
-5.00%	2	3	3	2
+5.00%	(2)	(4)	(3)	(2)
+10.00%	(4)	(8)	(7)	(5)

Sensitivities can be more meaningfully assessed in the context of coherent scenarios with consistently developed macroeconomic factors. The table above outlines favorable and unfavorable effects, based on reasonably possible alternative changes to the economic conditions for stage 1 and stage 2 positions. The ECL impact is calculated for material portfolios and disclosed for each scenario.

The forecasting horizon is limited to three years, with a model-based mean reversion of PD and LGD assumed thereafter. Changes to these timelines may have an effect on ECLs: depending on the cycle, a longer or shorter forecasting horizon will lead to different annualized lifetime PD and average LGD estimations. This is currently not deemed to be material for UBS, as a large proportion of loans, including mortgages in Switzerland, have maturities that are within the forecasting horizon.

Scenario weights and stage allocation

Potential effect on stage 1 and stage 2 positions from changing scenario weights or moving to an ECL lifetime calculation as of 31 December 2022

Scenarios	Actual ECL allowances and provisions, including staging (as per Note 9)	Pro forma ECL allowances and provisions, including staging and assuming application of 100% scenario weighting			Pro forma ECL allowances and provisions, assuming all positions being subject to lifetime ECL	
	Weighted average	100% Baseline	100% Asset price inflation	100% Stagflationary geopolitical crisis	100% Global crisis	Weighted average
<i>USD m, except where indicated</i>						
Segmentation						
Private clients with mortgages	(136)	(25)	(13)	(523)	(184)	(473)
Real estate financing	(43)	(26)	(22)	(176)	(30)	(126)
Large corporate clients	(136)	(97)	(84)	(199)	(174)	(235)
SME clients	(86)	(67)	(66)	(162)	(97)	(153)
Other segments	(125)	(114)	(111)	(145)	(153)	(281)
Total	(526)	(329)	(295)	(1,204)	(638)	(1,267)

Scenario weights

ECL is sensitive to changing scenario weights, in particular if narratives and parameters are selected that are not close to the baseline scenario, highlighting the non-linearity of credit losses.

As shown in the table above, the ECLs for stage 1 and stage 2 positions would have been USD 329m (31 December 2021: USD 387m) instead of USD 526m (31 December 2021: USD 503m) if ECLs had been determined solely on the *baseline scenario*. The weighted-average ECL therefore amounted to 160% (31 December 2021: 130%) of the baseline value. The effects of weighting each of the four scenarios 100% are shown in the table above.

Note 19 Expected credit loss measurement (continued)

Stage allocation and SICR

The determination of what constitutes an SICR is based on management judgment, as explained in Note 1a. Changing the SICR trigger will have a direct effect on ECLs, as more or fewer positions would be subject to lifetime ECLs under any scenario.

The relevance of the SICR trigger on overall ECL is demonstrated in the table above with the indication that the ECL allowances and provisions for stage 1 and stage 2 positions would have been USD 1,267m, if all non-impaired positions across the portfolio had been measured for lifetime ECLs irrespective of their actual SICR status. This amount compares with actual stage 1 and 2 allowances and provisions of USD 526m as of 31 December 2022.

Maturity profile

The maturity profile is an important driver in ECLs, in particular for transactions in stage 2. A transfer of a transaction into stage 2 may therefore have a significant effect on ECLs. The current maturity profile of most lending books is relatively short.

Lending to large corporate clients is generally between one and two years, with related loan commitments up to four years. Real estate lending is generally between two and three years in Switzerland, with long dated maturities in the US. Lombard-lending contracts typically have average contractual maturities of 12 months or less, and include callable features.

A significant portion of our lending to SMEs and Real estate financings is documented under multi-purpose credit agreements, which allow for various forms of utilization but are unconditionally cancelable by UBS at any time: a) for drawings under such agreements with a fixed maturity, the respective term is applied for ECL calculations, or a maximum of 12 months in stage 1; b) for unused credit lines and all drawings that have no fixed maturity (e.g., current accounts), UBS generally applies a 12-month maturity from the reporting date, given the credit review policies, which require either continuous monitoring of key indicators and behavioral patterns for smaller positions or an annual formal review for any other limit. The ECLs for these products are sensitive to shortening or extending the maturity assumption.

Note 20 Fair value measurement

a) Valuation principles

All financial and non-financial assets and liabilities measured or disclosed at fair value are categorized into one of three fair value hierarchy levels in accordance with International Financial Reporting Standards (IFRS). The fair value hierarchy is based on the transparency of inputs to the valuation of an asset or liability as of the measurement date. In certain cases, the inputs used to measure fair value may fall within different levels of the fair value hierarchy. For disclosure purposes, the level in the hierarchy within which an instrument is classified in its entirety is based on the lowest level input that is significant to the position's fair value measurement:

- Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities;
- Level 2 – valuation techniques for which all significant inputs are, or are based on, observable market data; or
- Level 3 – valuation techniques for which significant inputs are not based on observable market data.

Fair values are determined using quoted prices in active markets for identical assets or liabilities, where available. Where the market for a financial instrument or non-financial asset or liability is not active, fair value is established using a valuation technique, including pricing models. Valuation adjustments may be made to allow for additional factors, including model, liquidity, credit and funding risks, which are not explicitly captured within the valuation technique, but which would nevertheless be considered by market participants when establishing a price. The limitations inherent in a particular valuation technique are considered in the determination of the classification of an asset or liability within the fair value hierarchy. Generally, the unit of account for a financial instrument is the individual instrument, and UBS applies valuation adjustments at an individual instrument level, consistent with that unit of account. However, if certain conditions are met, UBS may estimate the fair value of a portfolio of financial assets and liabilities with substantially similar and offsetting risk exposures on the basis of the net open risks.

- **Refer to Note 20d for more information**

b) Valuation governance

UBS's fair value measurement and model governance framework includes numerous controls and other procedural safeguards that are intended to maximize the quality of fair value measurements reported in the financial statements. New products and valuation techniques must be reviewed and approved by key stakeholders from the risk and finance control functions. Responsibility for the ongoing measurement of financial and non-financial instruments at fair value is with the business divisions.

Note 20 Fair value measurement (continued)

Fair value estimates are validated by the risk and finance control functions, which are independent of the business divisions. Independent price verification is performed by Finance through benchmarking the business divisions' fair value estimates with observable market prices and other independent sources. A governance framework and associated controls are in place in order to monitor the quality of third-party pricing sources where used. For instruments where valuation models are used to determine fair value, independent valuation and model control groups within Finance and Risk Control evaluate UBS's models on a regular basis, including valuation and model input parameters, as well as pricing. As a result of the valuation controls employed, valuation adjustments may be made to the business divisions' estimates of fair value to align with independent market data and the relevant accounting standard.

- **Refer to Note 20d for more information**

c) Fair value hierarchy

The table below provides the fair value hierarchy classification of financial and non-financial assets and liabilities measured at fair value. The narrative that follows describes valuation techniques used in measuring their fair value of different product types (including significant valuation inputs and assumptions used), and the factors considered in determining their classification within the fair value hierarchy.

During 2022, assets and liabilities that were transferred from Level 2 to Level 1, or from Level 1 to Level 2, and were held for the entire reporting period were not material.

Determination of fair values from quoted market prices or valuation techniques¹

USD m	31.12.22				31.12.21			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value on a recurring basis								
Financial assets at fair value held for trading	96,241	10,138	1,488	107,866	113,697	14,825	2,299	130,821
of which: Equity instruments	83,074	789	126	83,988	97,958	1,090	149	99,197
of which: Government bills / bonds	5,496	950	18	6,464	7,135	1,351	10	8,496
of which: Investment fund units	6,673	596	61	7,330	7,843	1,364	21	9,229
of which: Corporate and municipal bonds	976	6,363	541	7,880	708	7,604	556	8,868
of which: Loans	0	1,179	628	1,807	0	3,099	1,443	4,542
of which: Asset-backed securities	22	261	114	397	53	317	120	489
Derivative financial instruments	769	147,875	1,464	150,108	522	116,479	1,140	118,142
of which: Foreign exchange	575	84,881	2	85,458	255	53,043	7	53,305
of which: Interest rate	0	39,345	460	39,805	0	32,747	494	33,241
of which: Equity / index	1	21,542	653	22,195	0	27,861	384	28,245
of which: Credit	0	719	318	1,038	0	1,179	236	1,414
of which: Commodities	0	1,334	30	1,365	0	1,590	16	1,606
Brokerage receivables	0	17,576	0	17,576	0	21,839	0	21,839
Financial assets at fair value not held for trading	26,572	29,498	3,725	59,796	27,278	28,622	4,180	60,080
of which: Financial assets for unit-linked investment contracts	13,071	1	0	13,072	21,110	187	6	21,303
of which: Corporate and municipal bonds	35	14,101	230	14,366	123	13,937	306	14,366
of which: Government bills / bonds	13,103	3,638	0	16,741	5,624	3,236	0	8,860
of which: Loans	0	3,602	736	4,337	0	4,982	892	5,874
of which: Securities financing transactions	0	7,590	114	7,704	0	5,704	100	5,804
of which: Auction rate securities	0	0	1,326	1,326	0	0	1,585	1,585
of which: Investment fund units	307	566	190	1,063	338	574	117	1,028
of which: Equity instruments	57	0	792	849	83	2	681	765
Financial assets measured at fair value through other comprehensive income on a recurring basis								
Financial assets measured at fair value through other comprehensive income	57	2,182	0	2,239	2,704	6,140	0	8,844
of which: Asset-backed securities ²	0	0	0	0	0	4,849	0	4,849
of which: Government bills / bonds ²	0	26	0	26	2,658	27	0	2,686
of which: Corporate and municipal bonds	57	2,156	0	2,213	45	1,265	0	1,310
Non-financial assets measured at fair value on a recurring basis								

Precious metals and other physical commodities	4,471	0	0	4,471	5,258	0	0	5,258
Non-financial assets measured at fair value on a non-recurring basis								
Other non-financial assets ³	0	0	110	110	0	0	26	26
Total assets measured at fair value	<u>128,110</u>	<u>207,269</u>	<u>6,788</u>	<u>342,166</u>	<u>149,459</u>	<u>187,905</u>	<u>7,645</u>	<u>345,010</u>

Note 20 Fair value measurement (continued)

Determination of fair values from quoted market prices or valuation techniques (continued)¹

USD m	31.12.22				31.12.21			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial liabilities measured at fair value on a recurring basis								
Financial liabilities at fair value held for trading	23,578	5,823	114	29,515	25,413	6,170	105	31,688
<i>of which: Equity instruments</i>	16,521	352	78	16,951	18,328	513	83	18,924
<i>of which: Corporate and municipal bonds</i>	36	4,643	27	4,707	30	4,219	17	4,266
<i>of which: Government bills / bonds</i>	5,880	706	1	6,587	5,883	826	0	6,709
<i>of which: Investment fund units</i>	1,141	84	3	1,229	1,172	555	6	1,733
Derivative financial instruments	640	152,582	1,684	154,906	509	118,558	2,242	121,309
<i>of which: Foreign exchange</i>	587	87,897	24	88,508	258	53,800	21	54,078
<i>of which: Interest rate</i>	0	37,429	116	37,545	0	28,398	278	28,675
<i>of which: Equity / index</i>	0	24,963	1,184	26,148	0	33,438	1,511	34,949
<i>of which: Credit</i>	0	920	279	1,199	0	1,412	341	1,753
<i>of which: Commodities</i>	0	1,309	52	1,361	0	1,503	63	1,566
Financial liabilities designated at fair value on a recurring basis								
Brokerage payables designated at fair value	0	45,085	0	45,085	0	44,045	0	44,045
Debt issued designated at fair value	0	63,111	10,527	73,638	0	59,606	14,194	73,799
Other financial liabilities designated at fair value	0	29,547	691	30,237	0	29,258	816	30,074
<i>of which: Financial liabilities related to unit-linked investment contracts</i>	0	13,221	0	13,221	0	21,466	0	21,466
<i>of which: Securities financing transactions</i>	0	15,333	0	15,333	0	6,375	2	6,377
<i>of which: Over-the-counter debt instruments and other</i>	0	993	691	1,684	0	1,417	814	2,231
Total liabilities measured at fair value	24,219	296,148	13,015	333,381	25,922	257,637	17,357	300,916

- 1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are not included in this table. The fair value of these derivatives was not material for the periods presented.
- 2 Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. Refer to Note 1 for more information.
- 3 Other non-financial assets primarily consist of properties and other non-current assets held for sale, which are measured at the lower of their net carrying amount or fair value less costs to sell.

Valuation techniques

UBS uses widely recognized valuation techniques for determining the fair value of financial and non-financial instruments that are not actively traded and quoted. The most frequently applied valuation techniques include discounted value of expected cash flows, relative value and option pricing methodologies.

Discounted value of expected cash flows is a valuation technique that measures fair value using estimated expected future cash flows from assets or liabilities and then discounts these cash flows using a discount rate or discount margin that reflects the credit and / or funding spreads required by the market for instruments with similar risk and liquidity profiles to produce a present value. When using such valuation techniques, expected future cash flows are estimated using an observed or implied market price for the future cash flows or by using industry-standard cash flow projection models. The discount factors within the calculation are generated using industry-standard yield curve modeling techniques and models.

Relative value models measure fair value based on the market prices of equivalent or comparable assets or liabilities, making adjustments for differences between the characteristics of the observed instrument and the instrument being valued.

Option pricing models incorporate assumptions regarding the behavior of future price movements of an underlying referenced asset or assets to generate a probability-weighted future expected payoff for the option. The resulting probability-weighted expected payoff is then discounted using discount factors generated from industry-standard yield curve modeling techniques and models. The option pricing model may be implemented using a closed-form analytical formula or other mathematical techniques (e.g., binomial tree or Monte Carlo simulation).

Where available, valuation techniques use market-observable assumptions and inputs. If such data is not available, inputs may be derived by reference to similar assets in active markets, from recent prices for comparable transactions or from other observable market data. In such cases, the inputs selected are based on historical experience and practice for similar or analogous instruments, derivation of input levels based on similar products with observable price levels, and knowledge of current market conditions and valuation approaches.

For more complex instruments, fair values may be estimated using a combination of observed transaction prices, consensus pricing services and relevant quotes. Consideration is given to the nature of the quotes (e.g., indicative or firm) and the relationship of recently evidenced market activity to the prices provided by consensus pricing services. UBS also uses internally developed models, which are typically based on valuation methods and techniques

recognized as standard within the industry. Assumptions and inputs used in valuation techniques include benchmark interest rate curves, credit and funding spreads used in estimating discount rates, bond and equity prices, equity index prices, foreign exchange rates, levels of market volatility and correlation. Refer to Note 20e for more information. The discount curves used by the Group incorporate the funding and credit characteristics of the instruments to which they are applied.

Note 20 Fair value measurement (continued)**Financial instruments excluding derivatives: valuation and classification in the fair value hierarchy**

Product	Valuation and classification in the fair value hierarchy	
Government bills and bonds	Valuation	<ul style="list-style-type: none">• Generally valued using prices obtained directly from the market.• Instruments not priced directly using active-market data are valued using discounted cash flow valuation techniques that incorporate market data for similar government instruments.
	Fair value hierarchy	<ul style="list-style-type: none">• Generally traded in active markets with prices that can be obtained directly from these markets, resulting in classification as Level 1, while the remaining positions are classified as Level 2 and Level 3.
Corporate and municipal bonds	Valuation	<ul style="list-style-type: none">• Generally valued using prices obtained directly from the market for the security, or similar securities, adjusted for seniority, maturity and liquidity.• When prices are not available, instruments are valued using discounted cash flow valuation techniques incorporating the credit spread of the issuer or similar issuers.• For convertible bonds without directly comparable prices, issuances may be priced using a convertible bond model.
	Fair value hierarchy	<ul style="list-style-type: none">• Generally classified as Level 1 or Level 2, depending on the depth of trading activity behind price sources.• Level 3 instruments have no suitable pricing information available.
Traded loans and loans measured at fair value	Valuation	<ul style="list-style-type: none">• Valued directly using market prices that reflect recent transactions or quoted dealer prices, where available.• Where no market price data is available, loans are valued by relative value benchmarking using pricing derived from debt instruments in comparable entities or different products in the same entity, or by using a credit default swap valuation technique, which requires inputs for credit spreads, credit recovery rates and interest rates. Recently originated commercial real estate loans are measured using a securitization approach based on rating agency guidelines.
	Fair value hierarchy	<ul style="list-style-type: none">• Instruments with suitably deep and liquid pricing information are classified as Level 2.• Positions requiring the use of valuation techniques, or for which the price sources have insufficient trading depth, are classified as Level 3.
Investment fund units	Valuation	<ul style="list-style-type: none">• Predominantly exchange-traded, with readily available quoted prices in liquid markets.• Where market prices are not available, fair value may be measured using net asset values (NAVs).
	Fair value hierarchy	<ul style="list-style-type: none">• Listed units are classified as Level 1, provided there is sufficient trading activity to justify active-market classification, while other positions are classified as Level 2.• Positions for which NAVs are not available are classified as Level 3.
Asset-backed securities (ABS)	Valuation	<ul style="list-style-type: none">• For liquid securities, the valuation process will use trade and price data, updated for movements in market levels between the time of trading and the time of valuation. Less liquid instruments are measured using discounted expected cash flows incorporating price data for instruments or indices with similar risk profiles.
	Fair value hierarchy	<ul style="list-style-type: none">• Residential mortgage-backed securities, commercial mortgage-backed securities and other ABS are generally classified as Level 2. However, if significant inputs are unobservable, or if market or fundamental data is not available, they are classified as Level 3.
Auction rate securities (ARS)	Valuation	<ul style="list-style-type: none">• ARS are valued utilizing a discounted cash flow methodology. The model captures interest rate risk emanating from the note coupon, credit risk attributable to the underlying closed-end fund investments, liquidity risk as a function of the level of trading volume in these positions, and extension risk, as ARS are perpetual instruments that require an assumption regarding their maturity or issuer redemption date.
	Fair value hierarchy	<ul style="list-style-type: none">• Granular and liquid pricing information is generally not available for ARS. As a result, these securities are classified as Level 3.
Equity instruments	Valuation	<ul style="list-style-type: none">• Listed equity instruments are generally valued using prices obtained directly from the market.• Unlisted equity holdings, including private equity positions, are initially marked at their transaction price and are revalued when reliable evidence of price movement becomes available or when the position is deemed to be impaired.

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| Fair value hierarchy | <ul style="list-style-type: none"> • The majority of equity securities are actively traded on public stock exchanges where quoted prices are readily and regularly available, resulting in Level 1 classification. • Equity securities less actively traded will be classified as Level 2 and illiquid positions as Level 3. |
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Financial assets for unit-linked investment contracts

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| Valuation | <ul style="list-style-type: none"> • The majority of assets are listed on exchanges and fair values are determined using quoted prices. |
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| Fair value hierarchy | <ul style="list-style-type: none"> • Most assets are classified as Level 1 if actively traded, or Level 2 if trading is not active. • Instruments for which prices are not readily available are classified as Level 3. |
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Securities financing transactions

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| Valuation | <ul style="list-style-type: none"> • These instruments are valued using discounted expected cash flow techniques. The discount rate applied is based on funding curves that are relevant to the collateral eligibility terms. |
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| Fair value hierarchy | <ul style="list-style-type: none"> • Collateral funding curves for these instruments are generally observable and, as a result, these positions are classified as Level 2. • Where the collateral terms are non-standard, the funding curve may be considered unobservable and these positions are classified as Level 3. |
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Brokerage receivables and payables

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| Valuation | <ul style="list-style-type: none"> • Fair value is determined based on the value of the underlying balances. |
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| Fair value hierarchy | <ul style="list-style-type: none"> • Due to their on-demand nature, these receivables and payables are deemed as Level 2. |
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Note 20 Fair value measurement (continued)

Product	Valuation and classification in the fair value hierarchy	
Financial liabilities related to unit-linked investment contracts	Valuation	<ul style="list-style-type: none"> The fair values of investment contract liabilities are determined by reference to the fair value of the corresponding assets.
	Fair value hierarchy	<ul style="list-style-type: none"> The liabilities themselves are not actively traded, but are mainly referenced to instruments that are actively traded and are therefore classified as Level 2.
Precious metals and other physical commodities	Valuation	<ul style="list-style-type: none"> Physical assets are valued using the spot rate observed in the relevant market.
	Fair value hierarchy	<ul style="list-style-type: none"> Generally traded in active markets with prices that can be obtained directly from these markets, resulting in classification as Level 1.
Debt issued designated at fair value	Valuation	<ul style="list-style-type: none"> The risk management and the valuation approaches for these instruments are closely aligned with the equivalent derivatives business and the underlying risk, and the valuation techniques used for this component are the same as the relevant valuation techniques described below.
	Fair value hierarchy	<ul style="list-style-type: none"> The observability is closely aligned with the equivalent derivatives business and the underlying risk.

Derivative instruments: valuation and classification in the fair value hierarchy

The curves used for discounting expected cash flows in the valuation of collateralized derivatives reflect the funding terms associated with the relevant collateral arrangement for the instrument being valued. These collateral arrangements differ across counterparties with respect to the eligible currency and interest terms of the collateral. The majority of collateralized derivatives are measured using a discount curve based on funding rates derived from overnight interest in the cheapest eligible currency for the respective counterparty collateral agreement.

Uncollateralized and partially collateralized derivatives are discounted using the alternative reference rate (the ARR) (or equivalent) curve for the currency of the instrument. As described in Note 20d, the fair value of uncollateralized and partially collateralized derivatives is then adjusted by credit valuation adjustments (CVAs), debit valuation adjustments (DVAs) and funding valuation adjustments (FVAs), as applicable, to reflect an estimation of the effect of counterparty credit risk, UBS's own credit risk, and funding costs and benefits.

- **Refer to Note 10 for more information about derivative instruments**

Derivative product	Valuation and classification in the fair value hierarchy	
Interest rate contracts	Valuation	<ul style="list-style-type: none"> Interest rate swap contracts are valued by estimating future interest cash flows and discounting those cash flows using a rate that reflects the appropriate funding rate for the position being measured. The yield curves used to estimate future index levels and discount rates are generated using market-standard yield curve models using interest rates associated with current market activity. The key inputs to the models are interest rate swap rates, forward rate agreement rates, short-term interest rate futures prices, basis swap spreads and inflation swap rates. Interest rate option contracts are valued using various market-standard option models, using inputs that include interest rate yield curves, inflation curves, volatilities and correlations. When the maturity of an interest rate swap or option contract exceeds the term for which standard market quotes are observable for a significant input parameter, the contracts are valued by extrapolation from the last observable point using standard assumptions or by reference to another observable comparable input parameter to represent a suitable proxy for that portion of the term.
	Fair value hierarchy	<ul style="list-style-type: none"> The majority of interest rate swaps are classified as Level 2, as the standard market contracts that form the inputs for yield curve models are generally traded in active and observable markets. Options are generally treated as Level 2, as the calibration process enables the model output to be validated to active-market levels. Models calibrated in this way are then used to revalue the portfolio of both standard options and more exotic products. Interest rate swap or option contracts are classified as Level 3 when the terms exceed standard market-observable quotes. Exotic options for which appropriate volatility or correlation input levels cannot be implied from observable market data are classified as Level 3.

Credit derivative contracts

Valuation	<ul style="list-style-type: none">• Credit derivative contracts are valued using industry-standard models based primarily on market credit spreads, upfront pricing points and implied recovery rates. Where a derivative credit spread is not directly available, it may be derived from the price of the reference cash bond.• Asset-backed credit derivatives are valued using a valuation technique similar to that of the underlying security with an adjustment to reflect the funding differences between cash and synthetic form.
Fair value hierarchy	<ul style="list-style-type: none">• Single-entity and portfolio credit derivative contracts are classified as Level 2 when credit spreads and recovery rates are determined from actively traded observable market data. Where the underlying reference name(s) are not actively traded and the correlation cannot be directly mapped to actively traded tranche instruments, these contracts are classified as Level 3.• Asset-backed credit derivatives follow the characteristics of the underlying security and are therefore distributed across Level 2 and Level 3.

Note 20 Fair value measurement (continued)

Derivative product	Valuation and classification in the fair value hierarchy	
Foreign exchange contracts	Valuation	<ul style="list-style-type: none">• Open spot foreign exchange (FX) contracts are valued using the FX spot rate observed in the market.• Forward FX contracts are valued using the FX spot rate adjusted for forward pricing points observed from standard market-based sources.• Over-the-counter (OTC) FX option contracts are valued using market-standard option valuation models. The models used for shorter-dated options (i.e., maturities of five years or less) tend to be different than those used for longer-dated options because the models needed for longer-dated OTC FX contracts require additional consideration of interest rate and FX rate interdependency.• The valuation for multi-dimensional FX options uses a multi-local volatility model, which is calibrated to the observed FX volatilities for all relevant FX pairs.
	Fair value hierarchy	<ul style="list-style-type: none">• The markets for FX spot and FX forward pricing points are both actively traded and observable and therefore such FX contracts are generally classified as Level 2.• A significant proportion of OTC FX option contracts are classified as Level 2 as inputs are derived mostly from standard market contracts traded in active and observable markets.• OTC FX option contracts classified as Level 3 include multi-dimensional FX options and long-dated FX exotic option contracts where there is no active market from which to derive volatility or correlation inputs.
Equity / index contracts	Valuation	<ul style="list-style-type: none">• Equity forward contracts have a single stock or index underlying and are valued using market-standard models. The key inputs to the models are stock prices, estimated dividend rates and equity funding rates (which are implied from prices of forward contracts observed in the market). Estimated cash flows are then discounted using market-standard discounted cash flow models using a rate that reflects the appropriate funding rate for that portion of the portfolio. When no market data is available for the instrument maturity, they are valued by extrapolation of available data, use of historical dividend data, or use of data for a related equity.• Equity option contracts are valued using market-standard models that estimate the equity forward level as described for equity forward contracts and incorporate inputs for stock volatility and for correlation between stocks within a basket. The probability-weighted expected option payoff generated is then discounted using market-standard discounted cash flow models applying a rate that reflects the appropriate funding rate for that portion of the portfolio. When volatility, forward or correlation inputs are not available, they are valued using extrapolation of available data, historical dividend, correlation or volatility data, or the equivalent data for a related equity.
	Fair value hierarchy	<ul style="list-style-type: none">• As inputs are derived mostly from standard market contracts traded in active and observable markets, a significant proportion of equity forward contracts are classified as Level 2.• Equity option positions for which inputs are derived from standard market contracts traded in active and observable markets are also classified as Level 2. Level 3 positions are those for which volatility, forward or correlation inputs are not observable.
Commodity contracts	Valuation	<ul style="list-style-type: none">• Commodity forward and swap contracts are measured using market-standard models that use market forward levels on standard instruments.• Commodity option contracts are measured using market-standard option models that estimate the commodity forward level as described for commodity forward and swap contracts, incorporating inputs for the volatility of the underlying index or commodity. For commodity options on baskets of commodities or bespoke commodity indices, the valuation technique also incorporates inputs for the correlation between different commodities or commodity indices.
	Fair value hierarchy	<ul style="list-style-type: none">• Individual commodity contracts are typically classified as Level 2, because active forward and volatility market data is available.

d) Valuation adjustments and other items

The output of a valuation technique is always an estimate of a fair value that cannot be measured with complete certainty. As a result, valuations are adjusted where appropriate and when such factors would be considered by market participants in estimating fair value, to reflect close-out costs, credit exposure, model-driven valuation uncertainty, funding costs and benefits, trading restrictions and other factors.

Deferred day-1 profit or loss reserves

For new transactions where the valuation technique used to measure fair value requires significant inputs that are not based on observable market data,

the financial instrument is initially recognized at the transaction price. The transaction price may differ from the fair value obtained using a valuation technique, where any such difference is deferred and not initially recognized in the income statement.

Deferred day-1 profit or loss is generally released into *Other net income from financial instruments measured at fair value through profit or loss* when pricing of equivalent products or the underlying parameters becomes observable or when the transaction is closed out.

The table below summarizes the changes in deferred day-1 profit or loss reserves during the respective period.

Note 20 Fair value measurement (continued)

Deferred day-1 profit or loss reserves

<i>USD m</i>	2022	2021	2020
Reserve balance at the beginning of the year	418	269	146
Profit / (loss) deferred on new transactions	299	459	362
(Profit) / loss recognized in the income statement	(295)	(308)	(238)
Foreign currency translation	0	(2)	0
Reserve balance at the end of the year	422	418	269

Own credit

Own credit risk is reflected in the valuation of UBS's fair value option liabilities where this component is considered relevant for valuation purposes by UBS's counterparties and other market participants.

Changes in the fair value of financial liabilities designated at fair value through profit or loss related to own credit are recognized in *Other comprehensive income* directly within *Retained earnings*, with no reclassification to the income statement in future periods. This presentation does not create or increase an accounting mismatch in the income statement, as the Group does not hedge changes in own credit.

Own credit is estimated using own credit adjustment (OCA) curves, which incorporate observable market data, including market-observed secondary prices for UBS's debt and debt curves of peers. In the table below, the change in unrealized own credit consists of changes in fair value that are attributable to the change in UBS's credit spreads, as well as the effect of changes in fair values attributable to factors other than credit spreads, such as redemptions, effects from time decay and changes in interest and other market rates. Realized own credit is recognized when an instrument with an associated unrealized OCA is repurchased prior to the contractual maturity date. Life-to-date amounts reflect the cumulative unrealized change since initial recognition.

- **Refer to Note 15 for more information about debt issued designated at fair value**

Own credit adjustments on financial liabilities designated at fair value

<i>USD m</i>	Included in Other comprehensive income		
	For the year ended		
	31.12.22	31.12.21	31.12.20
Recognized during the period:			
Realized gain / (loss)	1	(14)	2
Unrealized gain / (loss)	866	60	(295)
Total gain / (loss), before tax	867	46	(293)
 <i>USD m</i>	 31.12.22	 31.12.21	 31.12.20
Recognized on the balance sheet as of the end of the period:			
Unrealized life-to-date gain / (loss)	556	(315)	(381)
<i>of which: debt issued designated at fair value</i>	453	(347)	(418)
<i>of which: other financial liabilities designated at fair value</i>	103	32	36

Credit valuation adjustments

In order to measure the fair value of OTC derivative instruments, including funded derivative instruments that are classified as *Financial assets at fair value not held for trading*, CVAs are needed to reflect the credit risk of the counterparty inherent in these instruments. This amount represents the estimated fair value of protection required to hedge the counterparty credit risk of such instruments. A CVA is determined for each counterparty, considering all exposures with that counterparty, and is dependent on the expected future value of exposures, default probabilities and recovery rates, applicable collateral or netting arrangements, break clauses, funding spreads, and other contractual factors.

Funding valuation adjustments

FVAs reflect the costs and benefits of funding associated with uncollateralized and partially collateralized derivative receivables and payables and are calculated as the valuation effect from moving the discounting of the uncollateralized derivative cash flows from the ARR to OCA using the CVA framework, including the probability of counterparty default. An FVA is also applied to collateralized derivative assets in cases where the collateral cannot be sold or repledged.

Note 20 Fair value measurement (continued)

Debit valuation adjustments

A DVA is estimated to incorporate own credit in the valuation of derivatives where an FVA is not already recognized. The DVA calculation is effectively consistent with the CVA framework, being determined for each counterparty, considering all exposures with that counterparty and taking into account collateral netting agreements, expected future mark-to-market movements and UBS's credit default spreads.

Other valuation adjustments

Instruments that are measured as part of a portfolio of combined long and short positions are valued at mid-market levels to ensure consistent valuation of the long- and short-component risks. A liquidity valuation adjustment is then made to the overall net long or short exposure to move the fair value to bid or offer as appropriate, reflecting current levels of market liquidity. The bid-offer spreads used in the calculation of this valuation adjustment are obtained from market transactions and other relevant sources and are updated periodically.

Uncertainties associated with the use of model-based valuations are incorporated into the measurement of fair value through the use of model reserves. These reserves reflect the amounts that the Group estimates should be deducted from valuations produced directly by models to incorporate uncertainties in the relevant modeling assumptions, in the model and market inputs used, or in the calibration of the model output to adjust for known model deficiencies. In arriving at these estimates, the Group considers a range of market practices, including how it believes market participants would assess these uncertainties. Model reserves are reassessed periodically in light of data from market transactions, consensus pricing services and other relevant sources.

Balance sheet valuation adjustments on financial instruments

USD m	As of	
	31.12.22	31.12.21
Credit valuation adjustments¹	(33)	(44)
Funding valuation adjustments	(50)	(49)
Debit valuation adjustments	4	2
Other valuation adjustments	(839)	(913)
<i>of which: liquidity</i>	<i>(311)</i>	<i>(341)</i>
<i>of which: model uncertainty</i>	<i>(529)</i>	<i>(571)</i>

1 Amounts do not include reserves against defaulted counterparties.

Other items

In the first half of 2021, UBS incurred a loss of USD 861m as a result of closing out a significant portfolio of swaps with a US-based client of its prime brokerage business and the unwinding of related hedges, following the client's default. This loss is presented within *Other net income from financial instruments measured at fair value through profit or loss*.

Note 20 Fair value measurement (continued)

e) Level 3 instruments: valuation techniques and inputs

The table below presents material Level 3 assets and liabilities, together with the valuation techniques used to measure fair value, the inputs used in a given valuation technique that are considered significant as of 31 December 2022 and unobservable, and a range of values for those unobservable inputs.

The range of values represents the highest- and lowest-level inputs used in the valuation techniques. Therefore, the range does not reflect the level of uncertainty regarding a particular input or an assessment of the reasonableness of the Group's estimates and assumptions, but rather the different underlying characteristics of the relevant assets and liabilities held by the Group. The ranges will therefore vary from period to period and parameter to parameter based on characteristics of the instruments held at each balance sheet date. Furthermore, the ranges of unobservable inputs may differ across other financial institutions, reflecting the diversity of the products in each firm's inventory.

Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities

USD bn	Fair value				Valuation technique(s)	Significant unobservable input(s) ¹	Range of inputs						
	Assets		Liabilities				31.12.22			31.12.21			unit ¹
	31.12.22	31.12.21	31.12.22	31.12.21			low	high	weighted average ²	low	high	weighted average ²	
Financial assets and liabilities at fair value held for trading and Financial assets at fair value not held for trading													
<i>Corporate and municipal bonds</i>													
	0.8	<i>0.9</i>	0.0	<i>0.0</i>	Relative value to market comparable	Bond price equivalent	14	112	85	16	143	98	points
					Discounted expected cash flows	Discount margin	412	412		434	434		basis points
<i>Traded loans, loans measured at fair value, loan commitments and guarantees</i>													
	1.7	<i>2.8</i>	0.0	<i>0.0</i>	Relative value to market comparable	Loan price equivalent	30	100	97	0	101	99	points
					Discounted expected cash flows	Credit spread	200	200	200	175	800	436	basis points
					Market comparable and securitization model	Credit spread	145	1,350	322	28	1,544	241	basis points
	1.3	<i>1.6</i>			Discounted expected cash flows	Credit spread	115	196	144	115	197	153	basis points
	0.3	<i>0.1</i>	0.0	<i>0.0</i>	Relative value to market comparable	Net asset value							
	0.9	<i>0.8</i>	0.1	<i>0.1</i>	Relative value to market comparable	Price							
Debt issued designated at fair value⁴													
			10.5	<i>14.2</i>									
Other financial liabilities designated at fair value													
			0.7	<i>0.8</i>	Discounted expected cash flows	Funding spread	23	175		24	175		basis points
Derivative financial instruments													
	0.5	<i>0.5</i>	0.1	<i>0.3</i>	Option model	Volatility of interest rates	75	143		65	81		basis points

					Discounted expected cash flows						
<i>Credit</i>	0.3	0.2	0.3	0.3		Credit spreads	9	565	1	583	basis points
						Bond price equivalent	3	277	2	136	points
<i>Equity / index</i>	0.7	0.4	1.2	1.5	Option model	Equity dividend yields	0	20	0	11%	
						Volatility of equity stocks, equity and other indices	4	120	4	98%	
						Equity-to-FX correlation	(29)	84	(29)	76%	
						Equity-to-equity correlation	(25)	100	(25)	100%	

- 1 The ranges of significant unobservable inputs are represented in points, percentages and basis points. Points are a percentage of par (e.g., 100 points would be 100% of par).
- 2 Weighted averages are provided for most non-derivative financial instruments and were calculated by weighting inputs based on the fair values of the respective instruments. Weighted averages are not provided for inputs related to Other financial liabilities designated at fair value and Derivative financial instruments, as this would not be meaningful.
- 3 The range of inputs is not disclosed, as there is a dispersion of values given the diverse nature of the investments.
- 4 Debt issued designated at fair value primarily consists of UBS structured notes, which include variable maturity notes with various equity and foreign exchange underlying risks, rates-linked and credit-linked notes, all of which have embedded derivative parameters that are considered to be unobservable. The equivalent derivative instrument parameters are presented in the respective derivative financial instruments lines in this table.

Note 20 Fair value measurement (continued)

Significant unobservable inputs in Level 3 positions

This section discusses the significant unobservable inputs used in the valuation of Level 3 instruments and assesses the potential effect that a change in each unobservable input in isolation may have on a fair value measurement. Relationships between observable and unobservable inputs have not been included in the summary below.

<u>Input</u>	<u>Description</u>
Bond price equivalent	<ul style="list-style-type: none">• Where market prices are not available for a bond, fair value is measured by comparison with observable pricing data from similar instruments. Factors considered when selecting comparable instruments include credit quality, maturity and industry of the issuer. Fair value may be measured either by a direct price comparison or by conversion of an instrument price into a yield (either as an outright yield or as a spread to the relevant benchmark rate).• For corporate and municipal bonds, the range represents the range of prices from reference issuances used in determining fair value. Bonds priced at 0 are distressed to the point that no recovery is expected, while prices significantly in excess of 100 or par relate to inflation-linked or structured issuances that pay a coupon in excess of the market benchmark as of the measurement date.• For credit derivatives, the bond price range represents the range of prices used for reference instruments, which are typically converted to an equivalent yield or credit spread as part of the valuation process.
Loan price equivalent	<ul style="list-style-type: none">• Where market prices are not available for a traded loan, fair value is measured by comparison with observable pricing data for similar instruments. Factors considered when selecting comparable instruments include industry segment, collateral quality, maturity and issuer-specific covenants. Fair value may be measured either by a direct price comparison or by conversion of an instrument price into a yield. The range represents the range of prices derived from reference issuances of a similar credit quality used to measure fair value for loans classified as Level 3. Loans priced at 0 are distressed to the point that no recovery is expected, while a current price of 100 represents a loan that is expected to be repaid in full.
Credit spread	<ul style="list-style-type: none">• Valuation models for many credit derivatives require an input for the credit spread, which is a reflection of the credit quality of the associated referenced underlying. The credit spread of a particular security is quoted in relation to the yield on a benchmark security or reference rate, typically either US Treasury or ARR, and is generally expressed in terms of basis points. An increase / (decrease) in credit spread will increase / (decrease) the value of credit protection offered by credit default swaps and other credit derivative products. The income statement effect from such changes depends on the nature and direction of the positions held. Credit spreads may be negative where the asset is more creditworthy than the benchmark against which the spread is calculated. A wider credit spread represents decreasing creditworthiness. The range represents a diverse set of underlyings, with the lower end of the range representing credits of the highest quality and the upper end of the range representing greater levels of credit risk.
Discount margin	<ul style="list-style-type: none">• The discount margin (DM) spread represents the discount rates applied to present value cash flows of an asset to reflect the market return required for uncertainty in the estimated cash flows. DM spreads are a rate or rates applied on top of a floating index (e.g., Secured Overnight Financing Rate (SOFR)) to discount expected cash flows. Generally, a decrease / (increase) in the DM in isolation would result in a higher / (lower) fair value.• The high end of the range relates to securities that are priced low within the market relative to the expected cash flow schedule. This indicates that the market is pricing an increased risk of credit loss into the security that is greater than what is being captured by the expected cash flow generation process. The low ends of the ranges are typical of funding rates on better-quality instruments.
Funding spread	<ul style="list-style-type: none">• Structured financing transactions are valued using synthetic funding curves that best represent the assets that are pledged as collateral for the transactions. They are not representative of where UBS can fund itself on an unsecured basis, but provide an estimate of where UBS can source and deploy secured funding with counterparties for a given type of collateral. The funding spreads are expressed in terms of basis points, and if funding spreads widen, this increases the effect of discounting.• A small proportion of structured debt instruments and non-structured fixed-rate bonds within financial liabilities designated at fair value had an exposure to funding spreads that was longer in duration than the actively traded market.

Volatility

- Volatility measures the variability of future prices for a particular instrument and is generally expressed as a percentage, where a higher number reflects a more volatile instrument, for which future price movements are more likely to occur. Volatility is a key input into option models, where it is used to derive a probability-based distribution of future prices for the underlying instrument. The effect of volatility on individual positions within the portfolio is driven primarily by whether the option contract is a long or short position. In most cases, the fair value of an option increases as a result of an increase in volatility and is reduced by a decrease in volatility. Generally, volatility used in the measurement of fair value is derived from active-market option prices (referred to as implied volatility). A key feature of implied volatility is the volatility “smile” or “skew,” which represents the effect of pricing options of different option strikes at different implied volatility levels.
- Volatilities of low interest rates tend to be much higher than volatilities of high interest rates. In addition, different currencies may have significantly different implied volatilities.

Note 20 Fair value measurement (continued)

Input	Description
Correlation	<ul style="list-style-type: none"> Correlation measures the interrelationship between the movements of two variables. It is expressed as a percentage between –100% and +100%, where +100% represents perfectly correlated variables (meaning a movement of one variable is associated with a movement of the other variable in the same direction) and –100% implies that the variables are inversely correlated (meaning a movement of one variable is associated with a movement of the other variable in the opposite direction). The effect of correlation on the measurement of fair value depends on the specific terms of the instruments being valued, reflecting the range of different payoff features within such instruments. Equity-to-FX correlation is important for equity options based on a currency other than the currency of the underlying stock. Equity-to-equity correlation is particularly important for complex options that incorporate, in some manner, different equities in the projected payoff.
Equity dividend yields	<ul style="list-style-type: none"> The derivation of a forward price for an individual stock or index is important for measuring fair value for forward or swap contracts and for measuring fair value using option pricing models. The relationship between the current stock price and the forward price is based on a combination of expected future dividend levels and payment timings, and, to a lesser extent, the relevant funding rates applicable to the stock in question. Dividend yields are generally expressed as an annualized percentage of the share price, with the lowest limit of 0% representing a stock that is not expected to pay any dividend. The dividend yield and timing represent the most significant parameter in determining fair value for instruments that are sensitive to an equity forward price.

f) Level 3 instruments: sensitivity to changes in unobservable input assumptions

The table below summarizes those financial assets and liabilities classified as Level 3 for which a change in one or more of the unobservable inputs to reflect reasonably possible favorable and unfavorable alternative assumptions would change fair value significantly, and the estimated effect thereof. The table below does not represent the estimated effect of stress scenarios. Interdependencies between Level 1, 2 and 3 parameters have not been incorporated in the table. Furthermore, direct interrelationships between the Level 3 parameters discussed below are not a significant element of the valuation uncertainty.

Sensitivity data is estimated using a number of techniques, including the estimation of price dispersion among different market participants, variation in modeling approaches and reasonably possible changes to assumptions used within the fair value measurement process. The sensitivity ranges are not always symmetrical around the fair values, as the inputs used in valuations are not always precisely in the middle of the favorable and unfavorable range.

Sensitivity data is determined at a product or parameter level and then aggregated assuming no diversification benefit. Diversification would incorporate estimated correlations across different sensitivity results and, as such, would result in an overall sensitivity that would be less than the sum of the individual component sensitivities. However, the Group believes that the diversification benefit is not significant to this analysis.

Sensitivity of fair value measurements to changes in unobservable input assumptions¹

<i>USD m</i>	31.12.22		31.12.21	
	Favorable changes	Unfavorable changes	Favorable changes	Unfavorable changes
Traded loans, loans measured at fair value, loan commitments and guarantees	19	(12)	19	(13)
Securities financing transactions	33	(37)	41	(53)
Auction rate securities	46 ²	(46) ²	66	(66)
Asset-backed securities	27	(27)	20	(20)
Equity instruments	183	(161)	173	(146)
Interest rate derivatives, net	18 ²	(12) ²	29	(19)
Credit derivatives, net	3	(4)	5	(8)
Foreign exchange derivatives, net	10	(5)	19	(11)
Equity / index derivatives, net	361	(330)	368	(335)
Other	39 ²	(62) ²	50	(73)
Total	738	(696)	790	(744)

¹ Sensitivity of issued and over-the-counter debt instruments is reported with the equivalent derivative or securities financing instrument.

² Includes refinements applied in estimating valuation uncertainty across various parameters.

Note 20 Fair value measurement (continued)

g) Level 3 instruments: movements during the period

The table below presents additional information about material movements in Level 3 assets and liabilities measured at fair value on a recurring basis, excluding any related hedging activity.

Assets and liabilities transferred into or out of Level 3 are presented as if those assets or liabilities had been transferred at the beginning of the year.

Movements of Level 3 instruments

<i>USD bn</i>	Balance at the beginning of the period	<i>Net gains / losses included in comprehensive income¹</i>	<i>of which: related to instruments held at the end of the period</i>	Purchases	Sales	Issuances	Settlements	Transfers into Level 3	Transfers out of Level 3	Foreign currency translation	Balance at the end of the period
For the twelve months ended 31 December 2022²											
Financial assets at fair value held for trading											
	2.3	(0.3)	(0.3)	0.3	(1.8)	0.5	0.0	0.7	(0.3)	(0.0)	1.5
<i>of which: Investment fund units</i>	0.0	(0.0)	(0.0)	0.0	(0.0)	0.0	0.0	0.1	(0.0)	(0.0)	0.1
<i>of which: Corporate and municipal bonds</i>	0.6	(0.0)	(0.0)	0.3	(0.6)	0.0	0.0	0.4	(0.0)	(0.0)	0.5
<i>of which: Loans</i>	1.4	(0.1)	(0.1)	0.0	(1.1)	0.5	0.0	0.0	(0.2)	0.0	0.6
Derivative financial instruments – assets											
	1.1	0.6	0.3	0.0	0.0	0.4	(0.7)	0.1	(0.0)	(0.0)	1.5
<i>of which: Interest rate</i>	0.5	0.3	0.3	0.0	0.0	0.0	(0.2)	0.0	(0.1)	(0.0)	0.5
<i>of which: Equity / index</i>	0.4	0.2	0.1	0.0	0.0	0.4	(0.3)	0.1	(0.0)	(0.0)	0.7
<i>of which: Credit</i>	0.2	0.1	(0.1)	0.0	0.0	0.0	(0.2)	0.0	0.1	0.0	0.3
Financial assets at fair value not held for trading											
	4.2	0.1	0.1	0.7	(1.2)	0.1	(0.0)	0.2	(0.3)	(0.0)	3.7
<i>of which: Loans</i>	0.9	(0.0)	(0.0)	0.4	(0.4)	0.1	0.0	0.1	(0.3)	(0.0)	0.7
<i>of which: Auction rate securities</i>	1.6	0.1	0.0	0.0	(0.3)	0.0	0.0	0.0	0.0	0.0	1.3
<i>of which: Equity instruments</i>	0.7	0.0	0.0	0.1	(0.1)	0.0	0.0	0.1	0.0	(0.0)	0.8
Derivative financial instruments – liabilities											
	2.2	(0.8)	(0.4)	0.0	0.0	1.1	(0.9)	0.3	(0.2)	(0.1)	1.7
<i>of which: Interest rate</i>	0.3	(0.3)	(0.0)	0.0	0.0	0.1	(0.0)	0.0	(0.0)	(0.0)	0.1
<i>of which: Equity / index</i>	1.5	(0.4)	(0.3)	0.0	0.0	0.8	(0.7)	0.1	(0.2)	(0.0)	1.2
<i>of which: Credit</i>	0.3	(0.1)	(0.0)	0.0	0.0	0.1	(0.1)	0.1	(0.0)	(0.0)	0.3
Debt issued designated at fair value³	14.2	(2.2)	(1.8)	0.0	0.0	4.7	(3.1)	0.7	(3.4)	(0.3)	10.5
Other financial liabilities designated at fair value	0.8	(0.1)	(0.1)	0.0	0.0	0.0	(0.1)	0.0	(0.0)	(0.0)	0.7
For the twelve months ended 31 December 2021											
Financial assets at fair value held for trading											
	2.3	(0.0)	(0.1)	0.3	(1.6)	1.2	0.0	0.3	(0.3)	(0.0)	2.3
<i>of which: Investment fund units</i>	0.0	(0.0)	(0.0)	0.0	(0.0)	0.0	0.0	0.0	(0.0)	(0.0)	0.0
<i>of which: Corporate and municipal bonds</i>	0.8	0.0	(0.0)	0.2	(0.4)	0.0	0.0	0.0	(0.1)	(0.0)	0.6
<i>of which: Loans</i>	1.1	0.0	(0.0)	0.0	(0.8)	1.2	0.0	0.0	(0.2)	0.0	1.4
Derivative financial instruments – assets											
	1.8	(0.2)	(0.1)	0.0	0.0	0.5	(0.7)	0.1	(0.3)	(0.0)	1.1
<i>of which: Interest rate</i>	0.5	0.1	0.1	0.0	0.0	0.1	(0.2)	0.0	(0.1)	(0.0)	0.5
<i>of which: Equity / index</i>	0.9	(0.1)	(0.1)	0.0	0.0	0.3	(0.4)	0.0	(0.2)	(0.0)	0.4

<i>of which: Credit</i>	0.3	(0.1)	(0.1)	0.0	0.0	0.0	(0.1)	0.0	(0.0)	0.0	0.2
Financial assets at fair value not held for trading	3.9	0.1	0.1	1.0	(0.6)	0.0	0.0	0.1	(0.3)	(0.0)	4.2
<i>of which: Loans</i>	0.9	(0.0)	0.0	0.6	(0.3)	0.0	0.0	0.0	(0.3)	(0.0)	0.9
<i>of which: Auction rate securities</i>	1.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
<i>of which: Equity instruments</i>	0.5	0.1	0.1	0.1	(0.1)	0.0	0.0	0.0	(0.0)	(0.0)	0.7
Derivative financial instruments – liabilities	3.5	0.2	(0.0)	0.0	0.0	0.9	(1.8)	0.0	(0.5)	(0.0)	2.2
<i>of which: Interest rate</i>	0.5	(0.1)	(0.1)	0.0	0.0	0.0	(0.1)	0.0	(0.0)	(0.0)	0.3
<i>of which: Equity / index</i>	2.3	0.3	0.1	0.0	0.0	0.8	(1.5)	0.0	(0.4)	(0.0)	1.5
<i>of which: Credit</i>	0.5	(0.1)	(0.1)	0.0	0.0	0.0	(0.0)	0.0	(0.1)	(0.0)	0.3
Debt issued designated at fair value	11.0	0.7	0.6	0.0	0.0	8.0	(4.2)	0.2	(1.2)	(0.2)	14.2
Other financial liabilities designated at fair value	0.7	0.0	0.0	0.0	0.0	0.4	(0.2)	0.0	(0.0)	(0.0)	0.8

- 1 Net gains / losses included in comprehensive income are recognized in Net interest income and Other net income from financial instruments measured at fair value through profit or loss in the Income statement, and also in Gains / (losses) from own credit on financial liabilities designated at fair value, before tax in the Statement of comprehensive income.
- 2 Total Level 3 assets as of 31 December 2022 were USD 6.8bn (31 December 2021: USD 7.6bn). Total Level 3 liabilities as of 31 December 2022 were USD 13.0bn (31 December 2021: USD 17.4bn).
- 3 Of the USD 2.2bn in net gains / losses that is included in comprehensive income, USD 1.7bn is recognized in the Income statement and USD 0.5bn is recognized in the Statement of comprehensive income in Gains / (losses) from own credit on financial liabilities designated at fair value, before tax.

Note 20 Fair value measurement (continued)

h) Maximum exposure to credit risk for financial instruments measured at fair value

The tables below provide the Group's maximum exposure to credit risk for financial instruments measured at fair value and the respective collateral and other credit enhancements mitigating credit risk for these classes of financial instruments.

The maximum exposure to credit risk includes the carrying amounts of financial instruments recognized on the balance sheet subject to credit risk and the notional amounts for off-balance sheet arrangements. Where information is available, collateral is presented at fair value. For other collateral, such as real estate, a reasonable alternative value is used. Credit enhancements, such as credit derivative contracts and guarantees, are included at their notional amounts. Both are capped at the maximum exposure to credit risk for which they serve as security. The "Risk management and control" section of this report describes management's view of credit risk and the related exposures, which can differ in certain respects from the requirements of IFRS.

Maximum exposure to credit risk

	31.12.22								
	Maximum exposure to credit risk	Collateral				Credit enhancements			Exposure to credit risk after collateral and credit enhancements
		Cash collateral received	Collateralized by equity and debt instruments	Secured by real estate	Other collateral	Netting	Credit derivative contracts	Guarantees	
<i>USD bn</i>									
Financial assets measured at fair value on the balance sheet¹									
Financial assets at fair value held for trading – debt instruments ^{2,3}	16.5								16.5
Derivative financial instruments ⁴	150.1		5.9			133.5			10.7
Brokerage receivables	17.6		17.3						0.3
Financial assets at fair value not held for trading – debt instruments ⁵	44.8		11.4						33.4
Total financial assets measured at fair value	229.0	0.0	34.6	0.0	0.0	133.5	0.0	0.0	61.0
Guarantees ⁶	0.2							0.2	0.0

	31.12.21								
	Maximum exposure to credit risk	Collateral				Credit enhancements			Exposure to credit risk after collateral and credit enhancements
		Cash collateral received	Collateralized by equity and debt instruments	Secured by real estate	Other collateral	Netting	Credit derivative contracts	Guarantees	
<i>USD bn</i>									
Financial assets measured at fair value on the balance sheet¹									
Financial assets at fair value held for trading – debt instruments ^{2,3}	22.4								22.4
Derivative financial instruments ⁴	118.1		4.2			103.2			10.7
Brokerage receivables	21.8		21.6						0.2
Financial assets at fair value not held for trading – debt instruments ⁵	37.0		11.2						25.7
Total financial assets measured at fair value	199.4	0.0	37.1	0.0	0.0	103.2	0.0	0.0	59.1
Guarantees ⁶	0.2							0.2	0.0

- 1 The maximum exposure to loss is generally equal to the carrying amount and subject to change over time with market movements.
- 2 These positions are generally managed under the market risk framework. For the purpose of this disclosure, collateral and credit enhancements were not considered.
- 3 Does not include investment fund units.
- 4 The amount shown in the "Netting" column represents the netting potential not recognized on the balance sheet. Refer to Note 21 for more information.
- 5 Financial assets at fair value not held for trading collateralized by securities consisted of structured loans and reverse repurchase and securities borrowing agreements. 6 The amount shown in the "Guarantees" column largely relates to sub-participations.

Note 20 Fair value measurement (continued)

i) Financial instruments not measured at fair value

The table below provides the estimated fair values of financial instruments not measured at fair value.

Financial instruments not measured at fair value

USD bn	31.12.22						31.12.21					
	Carrying amount	Fair value					Carrying amount	Fair value				
		Total	Carrying amount approximates fair value ¹	Level 1	Level 2	Level 3		Total	Carrying amount approximates fair value ¹	Level 1	Level 2	Level 3
Assets												
Cash and balances at central banks	169.4	169.4	0.1	0.0	0.0	169.4	192.8	192.7	0.1	0.0	0.0	192.8
Loans and advances to banks	14.8	14.0	0.0	0.7	0.0	14.8	15.5	14.8	0.0	0.7	0.0	15.5
Receivables from securities financing transactions measured at amortized cost	67.8	64.3	0.0	1.8	1.7	67.8	75.0	71.6	0.0	1.3	2.1	75.0
Cash collateral receivables on derivative instruments	35.0	35.0	0.0	0.0	0.0	35.0	30.5	30.5	0.0	0.0	0.0	30.5
Loans and advances to customers	387.2	134.3	0.0	45.9	194.7	374.9	397.8	163.1	0.0	43.8	190.1	396.9
Other financial assets measured at amortized cost ²	53.3	12.9	10.3	25.1	2.5	50.8	26.2	4.1	9.3	10.7	2.4	26.5
Liabilities												
Amounts due to banks	11.6	8.9	0.0	2.7	0.0	11.6	13.1	9.1	0.0	4.0	0.0	13.1
Payables from securities financing transactions measured at amortized cost	4.2	3.5	0.0	0.7	0.0	4.2	5.5	4.1	0.0	1.5	0.0	5.5
Cash collateral payables on derivative instruments	36.4	36.4	0.0	0.0	0.0	36.4	31.8	31.8	0.0	0.0	0.0	31.8
Customer deposits	525.1	491.3	0.0	33.6	0.0	524.8	542.0	535.4	0.0	6.6	0.0	542.0
Debt issued measured at amortized cost	114.6	15.4	0.0	98.1	0.0	113.5	139.2	15.8	0.0	125.3	0.0	141.1
Other financial liabilities measured at amortized cost ³	6.2	6.2	0.0	0.0	0.0	6.2	5.4	5.4	0.0	0.0	0.0	5.4

- 1 Includes certain financial instruments where the carrying amount is a reasonable approximation of the fair value due to the instruments' short-term nature (instruments that are receivable or payable on demand, or with a remaining maturity (excluding the effects of callable features) of three months or less).
- 2 Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. Refer to Note 1 for information.
- 3 Excludes lease liabilities.

The fair values included in the table above have been calculated for disclosure purposes only. The valuation techniques and assumptions described below relate only to the fair value of UBS's financial instruments not measured at fair value. Other institutions may use different methods and assumptions for their fair value estimations, and therefore such fair value disclosures cannot necessarily be compared from one financial institution to another. The following principles were applied when determining fair value estimates for financial instruments not measured at fair value:

- For financial instruments with remaining maturities greater than three months, the fair value was determined from quoted market prices, if available.
- Where quoted market prices were not available, the fair values were estimated by discounting contractual cash flows using current market interest rates or appropriate yield curves for instruments with similar credit risk and maturity. These estimates generally include adjustments for counterparty credit risk or UBS's own credit.
- For short-term financial instruments with remaining maturities of three months or less, the carrying amount, which is net of credit loss allowances, is generally considered a reasonable estimate of fair value.

Note 21 Offsetting financial assets and financial liabilities

UBS enters into netting agreements with counterparties to manage the credit risks associated primarily with repurchase and reverse repurchase transactions, securities borrowing and lending, over-the-counter derivatives, and exchange-traded derivatives. These netting agreements and similar arrangements generally enable the counterparties to set off liabilities against available assets received in the ordinary course of business and / or in the event that the counterparties to the transaction are unable to fulfill their contractual obligations.

The tables below provide a summary of financial assets and financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements, as well as financial collateral received or pledged to mitigate credit exposures for these financial instruments.

The Group engages in a variety of counterparty credit risk mitigation strategies in addition to netting and collateral arrangements. Therefore, the net amounts presented in the tables below do not purport to represent their actual credit risk exposure.

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements

	Assets subject to netting arrangements						Assets not subject to netting arrangements ⁴	Total assets		
	Netting recognized on the balance sheet			Netting potential not recognized on the balance sheet ³				Assets recognized on the balance sheet	Total assets after consideration of netting potential	Total assets recognized on the balance sheet
	Gross assets before netting	Netting with gross liabilities ²	Net assets recognized on the balance sheet	Financial liabilities	Collateral received	Assets after consideration of netting potential				
<i>As of 31.12.22, USD bn</i>										
Receivables from securities financing transactions measured at amortized cost	60.8	(11.1)	49.6	(3.0)	(46.4)	0.3	18.2	18.5	67.8	
Derivative financial instruments	147.4	(2.5)	144.9	(110.9)	(28.5)	5.5	5.2	10.7	150.1	
Cash collateral receivables on derivative instruments ¹	33.5	0.0	33.5	(20.9)	(1.9)	10.6	1.5	12.1	35.0	
Financial assets at fair value not held for trading	85.6	(76.8)	8.7	(1.5)	(7.3)	0.0	51.0	51.0	59.8	
<i>of which: reverse repurchase agreements</i>	84.4	(76.8)	7.6	(1.5)	(6.1)	0.0	0.1	0.1	7.7	
Total assets	327.2	(90.4)	236.8	(136.3)	(84.1)	16.4	76.0	92.3	312.8	
<i>As of 31.12.21, USD bn</i>										
Receivables from securities financing transactions measured at amortized cost	67.7	(13.8)	53.9	(2.9)	(51.0)	0.0	21.1	21.1	75.0	
Derivative financial instruments	116.0	(3.6)	112.4	(88.9)	(18.5)	5.0	5.7	10.7	118.1	
Cash collateral receivables on derivative instruments ¹	29.4	0.0	29.4	(15.2)	(3.3)	11.0	1.1	12.1	30.5	
Financial assets at fair value not held for trading	93.1	(87.6)	5.5	(1.1)	(4.4)	0.0	54.6	54.6	60.1	
<i>of which: reverse repurchase agreements</i>	93.1	(87.6)	5.5	(1.1)	(4.4)	0.0	0.3	0.3	5.8	
Total assets	306.2	(105.0)	201.2	(108.1)	(77.2)	15.9	82.6	98.5	283.7	

- The net amount of Cash collateral receivables on derivative instruments recognized on the balance sheet includes certain OTC derivatives that are net settled on a daily basis either legally or in substance under IAS 32 principles and exchange-traded derivatives that are economically settled on a daily basis.
- The logic of the table results in amounts presented in the “Netting with gross liabilities” column corresponding directly to the amounts presented in the “Netting with gross assets” column in the liabilities table presented below. Netting in this column for reverse repurchase agreements presented within the lines “Receivables from securities financing transactions measured at amortized cost” and “Financial assets at fair value not held for trading” taken together corresponds to the amounts presented for repurchase agreements in the “Payables from securities financing transactions measured at amortized cost” and “Other financial liabilities designated at fair value” lines in the liabilities table presented below.
- For the purpose of this disclosure, the amounts of financial instruments and cash collateral presented have been capped so as not to exceed the net amount of financial assets presented on the balance sheet; i.e., over-collateralization, where it exists, is not reflected in the table.
- Includes assets not subject to enforceable netting arrangements and other out-of-scope items.

Note 21 Offsetting financial assets and financial liabilities (continued)

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements

	Liabilities subject to netting arrangements						Liabilities not subject to netting arrangements ⁴	Total liabilities		
	Netting recognized on the balance sheet			Netting potential not recognized on the balance sheet ³				Liabilities recognized on the balance sheet	Total liabilities after consideration of netting potential	Total liabilities recognized on the balance sheet
	Gross liabilities before netting	Netting with gross assets ²	Net liabilities recognized on the balance sheet	Financial assets	Collateral pledged	Liabilities after consideration of netting potential				
<i>As of 31.12.22, USD bn</i>										
Payables from securities financing transactions measured at amortized cost	14.1		3.0			0.0	1.2	1.2	4.2	
		(11.1)		(1.3)	(1.8)					
Derivative financial instruments	150.3	(2.5)	147.8	(110.9)	(26.2)	10.7	7.1	17.8	154.9	
Cash collateral payables on derivative instruments ¹	34.9	0.0	34.9	(20.0)	(1.9)	13.0	1.6	14.5	36.4	
Other financial liabilities designated at fair value	92.5	(76.9)	15.6	(3.2)	(12.4)	0.0	14.6	14.6	30.2	
<i>of which: repurchase agreements</i>	92.1	(76.9)	15.3	(3.2)	(12.1)	0.0	0.1	0.1	15.3	
Total liabilities	291.7	(90.4)	201.3	(135.3)	(42.3)	23.7	24.5	48.1	225.8	

As of 31.12.21, USD bn

Payables from securities financing transactions measured at amortized cost	16.9	(12.8)	4.1	(1.8)	(2.3)	0.0	1.4	1.4	5.5
Derivative financial instruments	118.4	(3.6)	114.9	(88.9)	(18.1)	7.9	6.4	14.3	121.3
Cash collateral payables on derivative instruments ¹	30.4	0.0	30.4	(13.1)	(3.3)	14.0	1.4	15.4	31.8
Other financial liabilities designated at fair value	94.8	(88.6)	6.2	(2.2)	(3.8)	0.2	23.9	24.1	30.1
<i>of which: repurchase agreements</i>	94.6	(88.6)	6.0	(2.2)	(3.8)	0.0	0.4	0.4	6.4
Total liabilities	260.6	(105.0)	155.6	(106.0)	(27.5)	22.1	33.1	55.2	188.7

- 1 The net amount of Cash collateral payables on derivative instruments recognized on the balance sheet includes certain OTC derivatives that are net settled on a daily basis either legally or in substance under IAS 32 principles and exchange-traded derivatives that are economically settled on a daily basis.
- 2 The logic of the table results in amounts presented in the “Netting with gross assets” column corresponding to the amounts presented in the “Netting with gross liabilities” column in the assets table presented above. Netting in this column for repurchase agreements presented within the lines “Payables from securities financing transactions measured at amortized cost” and “Other financial liabilities designated at fair value” taken together corresponds to the amounts presented for reverse repurchase agreements in the “Receivables from securities financing transactions measured at amortized cost” and “Financial assets at fair value not held for trading” lines in the assets table presented above.
- 3 For the purpose of this disclosure, the amounts of financial instruments and cash collateral presented have been capped so as not to exceed the net amount of financial liabilities presented on the balance sheet; i.e., over-collateralization, where it exists, is not reflected in the table.
- 4 Includes liabilities not subject to enforceable netting arrangements and other out-of-scope items.

Note 22 Restricted and transferred financial assets

This Note provides information about restricted financial assets (Note 22a), transfers of financial assets (Note 22b and 22c) and financial assets that are received as collateral with the right to resell or repledge these assets (Note 22d).

a) Restricted financial assets

Restricted financial assets consist of assets pledged as collateral against an existing liability or contingent liability and other assets that are otherwise explicitly restricted such that they cannot be used to secure funding.

Financial assets are mainly pledged as collateral in securities lending transactions, in repurchase transactions, against loans from Swiss mortgage institutions and in connection with the issuance of covered bonds. The Group generally enters into repurchase and securities lending arrangements under standard market agreements. For securities lending, the cash received as collateral may be more or less than the fair value of the securities loaned, depending on the nature of the transaction. For repurchase agreements, the fair value of the collateral sold under an agreement to repurchase is generally in excess of the cash borrowed. Pledged mortgage loans serve as collateral for existing liabilities against Swiss central mortgage institutions and for existing covered bond issuances of USD 8,962m as of 31 December 2022 (31 December 2021: USD 10,843m).

Other restricted financial assets include assets protected under client asset segregation rules, assets held under unit-linked investment contracts to back related liabilities to the policy holders and assets held in certain jurisdictions to comply with explicit minimum local asset maintenance requirements. The carrying amount of the liabilities associated with these other restricted financial assets is generally equal to the carrying amount of the assets, with the exception of assets held to comply with local asset maintenance requirements, for which the associated liabilities are greater.

Restricted financial assets

<i>USD m</i>	31.12.22		31.12.21	
	Restricted financial assets	<i>of which: assets pledged as collateral that may be sold or repledged by counterparties</i>	Restricted financial assets	<i>of which: assets pledged as collateral that may be sold or repledged by counterparties</i>
Financial assets pledged as collateral				
Financial assets at fair value held for trading	57,377	36,742	63,725	43,397
Loans and advances to customers ¹	15,195		18,160	
Financial assets at fair value not held for trading	1,509	1,220	961	961
Debt securities classified as Other financial assets measured at amortized cost	3,432	2,685	2,234	1,870
Total financial assets pledged as collateral	77,513		85,079	
Other restricted financial assets				
Loans and advances to banks	3,689		3,408	
Financial assets at fair value held for trading	162		392	
Cash collateral receivables on derivative instruments	5,155		4,747	
Loans and advances to customers	1,127		1,237	
Financial assets at fair value not held for trading	14,478		22,765	
Financial assets measured at fair value through other comprehensive income	1,842		894	
Other	859		97	
Total other restricted financial assets	27,312		33,540	
Total financial assets pledged and other restricted financial assets²	104,825		118,619	

1 Mainly related to mortgage loans that serve as collateral for existing liabilities toward Swiss central mortgage institutions and for existing covered bond issuances. Of these pledged mortgage loans, approximately USD 3.1bn as of 31 December 2022 (31 December 2021: approximately USD 2.7bn) could be withdrawn or used for future liabilities or covered bond issuances without breaching existing collateral requirements.

2 Does not include assets placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes (31 December 2022: USD 5.9bn; 31 December 2021: USD 4.4bn).

Note 22 Restricted and transferred financial assets (continued)

In addition to restrictions on financial assets, UBS Group AG and its subsidiaries are, in certain cases, subject to regulatory requirements that affect the transfer of dividends and capital within the Group, as well as intercompany lending. Supervisory authorities also may require entities to measure capital and leverage ratios on a stressed basis, such as the Federal Reserve Board's Comprehensive Capital Analysis and Review (CCAR) process, which may limit the relevant subsidiaries' ability to make distributions of capital based on the results of those tests.

Supervisory authorities generally have discretion to impose higher requirements or to otherwise limit the activities of subsidiaries.

Non-regulated subsidiaries are generally not subject to such requirements and transfer restrictions. However, restrictions can also be the result of different legal, regulatory, contractual, entity- or country-specific arrangements and / or requirements.

- **Refer to the “Financial and regulatory key figures for our significant regulated subsidiaries and sub-groups” section of this report for financial information about significant regulated subsidiaries of the Group**

b) Transferred financial assets that are not derecognized in their entirety

The table below presents information for financial assets that have been transferred but are subject to continued recognition in full, as well as recognized liabilities associated with those transferred assets.

Transferred financial assets subject to continued recognition in full

<u>USD m</u>	31.12.22		31.12.21	
	Carrying amount of transferred assets	Carrying amount of associated liabilities recognized on balance sheet	Carrying amount of transferred assets	Carrying amount of associated liabilities recognized on balance sheet
Financial assets at fair value held for trading that may be sold or repledged by counterparties	36,742	16,470	43,397	17,687
<i>relating to securities lending and repurchase agreements in exchange for cash received</i>	16,756	16,470	17,970	17,687
<i>relating to securities lending agreements in exchange for securities received</i>	18,908		24,146	
<i>relating to other financial asset transfers</i>	1,078		1,281	
Financial assets at fair value not held for trading that may be sold or repledged by counterparties	1,220	1,050	961	898
Debt securities classified as Other financial assets measured at amortized cost that may be sold or repledged by counterparties	2,685	2,302	1,870	1,725
Total financial assets transferred	40,647	19,822	46,227	20,311

Transactions in which financial assets are transferred, but continue to be recognized in their entirety on UBS's balance sheet include securities lending and repurchase agreements, as well as other financial asset transfers. Repurchase and securities lending arrangements are, for the most part, conducted under standard market agreements and are undertaken with > counterparties subject to UBS's normal credit risk control processes.

- **Refer to Note 1a item 2e for more information about repurchase and securities lending agreements**

As of 31 December 2022, approximately 45% of the transferred financial assets were assets held for trading transferred in exchange for cash, in which case the associated recognized liability represents the amount to be repaid to counterparties. For securities lending and repurchase agreements, a haircut of between 0% and 15% is generally applied to the transferred assets, which results in associated liabilities having a carrying amount below the carrying amount of the transferred assets. The counterparties to the associated liabilities presented in the table above have full recourse to UBS.

In securities lending arrangements entered into in exchange for the receipt of other securities as collateral, neither the securities received nor the obligation to return them are recognized on UBS's balance sheet, as the risks and rewards of ownership are not transferred to UBS. In cases where such financial assets received are subsequently sold or repledged in another transaction, this is not considered to be a transfer of financial assets.

Other financial asset transfers primarily include securities transferred to collateralize derivative transactions, for which the carrying amount of

associated liabilities is not provided in the table above, because those replacement values are managed on a portfolio basis across counterparties and product types, and therefore there is no direct relationship between the specific collateral pledged and the associated liability.

Transferred financial assets that are not subject to derecognition in full but remain on the balance sheet to the extent of the Group's continuing involvement were not material as of 31 December 2022 and as of 31 December 2021.

Note 22 Restricted and transferred financial assets (continued)

c) Transferred financial assets that are derecognized in their entirety with continuing involvement

Continuing involvement in a transferred and fully derecognized financial asset may result from contractual provisions in the particular transfer agreement or from a separate agreement, with the counterparty or a third party, entered into in connection with the transfer.

The fair value and carrying amount of UBS's continuing involvement from transferred positions as of 31 December 2022 and 31 December 2021 was not material. Life-to-date losses reported in prior periods primarily relate to legacy positions in securitization vehicles that have been fully marked down, with no remaining exposure to loss.

d) Off-balance sheet assets received

The table below presents assets received from third parties that can be sold or repledged and that are not recognized on the balance sheet, but that are held as collateral, including amounts that have been sold or repledged.

Off-balance sheet assets received

<i>USD m</i>	31.12.22	31.12.21
Fair value of assets received that can be sold or repledged	434,023	497,828
<i>received as collateral under reverse repurchase, securities borrowing and lending arrangements, derivative and other transactions¹</i>	418,847	483,426
<i>received in unsecured borrowings</i>	15,175	14,402
Thereof sold or repledged ²	331,805	367,440
<i>in connection with financing activities</i>	288,752	319,176
<i>to satisfy commitments under short sale transactions</i>	29,515	31,688
<i>in connection with derivative and other transactions¹</i>	13,538	16,575

- 1 Includes securities received as initial margin from its clients that UBS is required to remit to central counterparties, brokers and deposit banks through its exchange-traded derivative clearing and execution services.
- 2 Does not include off-balance sheet securities (31 December 2022: USD 9.9bn; 31 December 2021: USD 12.7bn) placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes for which there are no associated liabilities or contingent liabilities.

Note 23 Maturity analysis of assets and liabilities

a) Maturity analysis of carrying amounts of assets and liabilities

The table below provides an analysis of carrying amounts of balance sheet assets and liabilities, as well as off-balance sheet exposures by residual contractual maturity as of the reporting date. The residual contractual maturity of assets includes the effect of callable features. The residual contractual maturity of liabilities and off-balance sheet exposures is based on the earliest date on which a third party could require UBS to pay.

Derivative financial instruments and financial assets and liabilities at fair value held for trading are presented in the *Due within 1 month* column; however, the respective contractual maturities may extend over significantly longer periods.

Assets held to hedge unit-linked investment contracts (presented within *Financial assets at fair value not held for trading*) are presented in the *Due within 1 month* column, consistent with the maturity assigned to the related amounts due under unit-linked investment contracts (presented within *Other financial liabilities designated at fair value*).

Other financial assets and liabilities with no contractual maturity, such as equity securities, are presented in the *Perpetual / Not applicable* column. Undated or perpetual instruments are classified based on the contractual notice period that the counterparty of the instrument is entitled to give. Where there is no contractual notice period, undated or perpetual contracts are presented in the *Perpetual / Not applicable* column.

Non-financial assets and liabilities with no contractual maturity are generally included in the *Perpetual / Not applicable* column.

Loan commitments are classified based on the earliest date they can be drawn down.

Note 23 Maturity analysis of assets and liabilities (continued)

<i>USD bn</i>	31.12.22							Perpetual/ Not applicable	Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 2 years	Due between 2 and 5 years	Due over 5 years			
Assets									
Total financial assets measured at amortized cost ¹	422.6	28.7	34.4	78.7	70.4	92.7			727.6
<i>Loans and advances to customers</i>	139.4	16.3	28.3	74.9	55.5	72.9			387.2
Total financial assets measured at fair value through profit or loss	300.2	10.0	7.8	3.6	9.9	2.0	1.9		335.3
<i>Financial assets at fair value not held for trading</i>	24.6	10.0	7.8	3.6	9.9	2.0	1.9		59.8
Financial assets measured at fair value through other comprehensive income ¹	0.3	0.9	0.9	0.1	0.0	0.0			2.2
Total non-financial assets	7.6		0.2		2.0	0.4	29.0		39.2
Total assets	730.7	39.6	43.4	82.4	82.3	95.1	31.0		1,104.4
Liabilities									
Total financial liabilities measured at amortized cost	521.9	40.0	49.6	20.5	35.1	23.4	11.1		701.5
<i>Customer deposits</i>	463.0	28.3	23.8	7.5	2.2	0.3			525.1
<i>Debt issued measured at amortized cost</i>	6.6	8.8	23.3	11.9	31.1	21.9	11.1		114.6
<i>of which: non-subordinated fixed rate debt</i>	3.1	4.0	13.2	7.6	28.4	21.9			78.1
<i>of which: non-subordinated floating rate debt</i>	1.5	4.8	10.1	1.9	2.2	0.0			20.5
<i>of which: subordinated fixed-rate debt</i>	2.0			2.4	0.5		11.1		16.0
Total financial liabilities measured at fair value through profit or loss ²	265.9	13.8	16.3	19.6	7.3	10.5			333.4
<i>Debt issued designated at fair value</i>	9.3	12.3	15.9	19.3	6.9	10.0			73.6
<i>of which: non-subordinated fixed rate debt</i>	0.5	2.3	5.6	3.6	2.0	3.4			17.4
<i>of which: non-subordinated floating rate debt</i>	8.8	10.0	10.3	15.7	4.9	6.6			56.2
Total non-financial liabilities	7.2	3.0					2.1		12.3
Total liabilities	795.1	56.7	65.9	40.1	42.4	33.9	13.2		1,047.1
Guarantees, loan commitments and forward starting transactions³									
Loan commitments	39.3	0.3	0.4	0.0					40.0
Guarantees	22.4								22.4
Forward starting transactions, reverse repurchase and securities borrowing agreements	3.8								3.8
Total	65.4	0.3	0.4	0.0					66.2

<i>USD bn</i>	31.12.21							Perpetual / Not applicable	Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 2 years	Due between 2 and 5 years	Due over 5 years			
Assets									
Total financial assets measured at amortized cost	453.7	45.9	43.1	53.7	64.1	77.3			737.8
<i>Loans and advances to customers</i>	157.2	28.7	37.2	49.6	54.9	70.1			397.8
Total financial assets measured at fair value through profit or loss	300.5	5.8	8.1	5.2	7.1	2.5	1.8		330.9
<i>Financial assets at fair value not held for trading</i>	29.7	5.8	8.1	5.2	7.1	2.5	1.8		60.1
Financial assets measured at fair value through other comprehensive income	0.1	0.4	0.7	0.1	0.4	7.1			8.8
Total non-financial assets	7.7	0.5	0.1	0.2	1.4	0.3	29.4		39.7
Total assets	761.9	52.6	52.0	59.2	73.0	87.2	31.2		1,117.2
Liabilities									

Total financial liabilities measured at amortized cost	581.6	20.1	48.4	17.0	35.6	24.4	13.5	740.6
<i>Customer deposits</i>	<i>530.1</i>	<i>5.2</i>	<i>3.2</i>	<i>1.6</i>	<i>1.5</i>	<i>0.3</i>		<i>542.0</i>
<i>Debt issued measured at amortized cost</i>	<i>3.7</i>	<i>12.1</i>	<i>39.8</i>	<i>14.9</i>	<i>32.5</i>	<i>22.7</i>	<i>13.5</i>	<i>139.2</i>
<i>of which: non-subordinated fixed rate debt</i>	<i>3.7</i>	<i>10.8</i>	<i>28.8</i>	<i>10.6</i>	<i>26.0</i>	<i>22.7</i>		<i>102.6</i>
<i>of which: non-subordinated floating rate debt</i>		<i>1.3</i>	<i>9.0</i>	<i>4.3</i>	<i>3.3</i>			<i>17.9</i>
<i>of which: subordinated fixed-rate debt</i>			<i>2.0</i>		<i>3.1</i>		<i>13.5</i>	<i>18.6</i>
Total financial liabilities measured at fair value through profit or loss ²	237.7	12.0	14.7	18.8	5.6	12.2		300.9
<i>Debt issued designated at fair value</i>	<i>12.5</i>	<i>11.6</i>	<i>14.1</i>	<i>18.6</i>	<i>5.4</i>	<i>11.5</i>		<i>73.8</i>
<i>of which: non-subordinated fixed rate debt</i>	<i>0.8</i>	<i>1.2</i>	<i>2.9</i>	<i>1.2</i>	<i>1.3</i>	<i>4.8</i>		<i>12.2</i>
<i>of which: non-subordinated floating rate debt</i>	<i>11.7</i>	<i>10.3</i>	<i>11.2</i>	<i>17.4</i>	<i>4.2</i>	<i>6.8</i>		<i>61.6</i>
Total non-financial liabilities	9.3	3.0					2.4	14.7
Total liabilities	828.6	35.1	63.0	35.8	41.2	36.6	15.9	1,056.2
Guarantees, loan commitments and forward starting transactions³								
Loan commitments	38.3	0.5	0.7	0.0				39.5
Guarantees	21.2							21.2
Forward starting transactions, reverse repurchase and securities borrowing agreements	1.4							1.4
Total	60.9	0.5	0.7	0.0	0.0	0.0	0.0	62.1

1 Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. Refer to Note 1b for more information.

2 As of 31 December 2022 and 31 December 2021, the contractual redemption amount at maturity of debt issued designated at fair value through profit or loss and other financial liabilities measured at fair value through profit or loss was not materially different from the carrying amount.

3 The notional amounts associated with derivative loan commitments, as well as forward starting repurchase and reverse repurchase agreements, measured at fair value through profit or loss are presented together with notional amounts related to derivative instruments and have been excluded from the table above. Refer to Note 10 for more information.

Note 23 Maturity analysis of assets and liabilities (continued)

b) Maturity analysis of financial liabilities on an undiscounted basis

The table below provides an analysis of financial liabilities on an undiscounted basis, including all cash flows relating to principal and future interest payments. The residual contractual maturities for non-derivative and non-trading financial liabilities are based on the earliest date on which UBS could be contractually required to pay. Derivative positions and trading liabilities, predominantly made up of short sale transactions, are presented in the *Due within 1 month* column, as this provides a conservative reflection of the nature of these trading activities. The residual contractual maturities may extend over significantly longer periods.

USD bn	31.12.22						Perpetual / Not applicable	Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 2 years	Due between 2 and 5 years	Due over 5 years		
Financial liabilities recognized on balance sheet¹								
Amounts due to banks	6.3	2.6	1.9	0.3	0.6	0.0		11.7
Payables from securities financing transactions	3.3	0.3	0.4	0.3				4.4
Cash collateral payables on derivative instruments	36.4							36.4
Customer deposits	463.1	28.5	24.5	8.0	2.4	0.3		526.9
Debt issued measured at amortized cost ²	6.8	9.4	24.8	14.4	37.9	28.0	11.9	133.4
Other financial liabilities measured at amortized cost	4.7	0.1	0.5	0.5	1.3	1.4		8.5
<i>of which: lease liabilities</i>	<i>0.1</i>	<i>0.1</i>	<i>0.5</i>	<i>0.5</i>	<i>1.3</i>	<i>1.4</i>		<i>3.8</i>
Total financial liabilities measured at amortized cost	520.7	40.9	52.1	23.6	42.3	29.7	11.9	721.2
Financial liabilities at fair value held for trading ^{3, 4}	29.5							29.5
Derivative financial instruments ^{3, 5}	154.9							154.9
Brokerage payables designated at fair value	45.1							45.1
Debt issued designated at fair value ⁶	9.4	12.4	16.1	19.7	7.1	18.8		83.4
Other financial liabilities designated at fair value	27.1	1.4	0.4	0.4	0.5	0.8		30.6
Total financial liabilities measured at fair value through profit or loss	266.0	13.8	16.4	20.0	7.6	19.6		343.5
Total	786.8	54.7	68.6	43.6	49.8	49.3	11.9	1,064.7
Guarantees, commitments and forward starting transactions								
Loan commitments ⁷	39.3	0.3	0.4	0.0				40.0
Guarantees	22.4							22.4
Forward starting transactions, reverse repurchase and securities borrowing agreements ⁷	3.8							3.8
Total	65.4	0.3	0.4	0.0				66.2

USD bn	31.12.21						Perpetual / Not applicable	Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 2 years	Due between 2 and 5 years	Due over 5 years		
Financial liabilities recognized on balance sheet¹								
Amounts due to banks	6.7	2.4	3.5	0.0	0.5			13.1
Payables from securities financing transactions	3.8	0.3	1.6	0.0				5.7
Cash collateral payables on derivative instruments	31.8							31.8
Customer deposits	530.1	5.2	3.3	1.7	1.5	0.4		542.3
Debt issued measured at amortized cost ²	4.0	12.7	41.1	16.7	36.9	24.3	13.3	148.9
Other financial liabilities measured at amortized cost	4.5	0.1	0.5	0.6	1.3	1.6		8.4
<i>of which: lease liabilities</i>	<i>0.1</i>	<i>0.1</i>	<i>0.5</i>	<i>0.6</i>	<i>1.3</i>	<i>1.6</i>		<i>4.0</i>

Total financial liabilities measured at amortized cost	580.9	20.8	49.9	19.0	40.3	26.2	13.3	750.2
Financial liabilities at fair value held for trading ^{3,4}	31.7							31.7
Derivative financial instruments ^{3,5}	121.3							121.3
Brokerage payables designated at fair value	44.0							44.0
Debt issued designated at fair value ⁶	13.8	11.5	13.5	18.8	5.7	18.5		81.9
Other financial liabilities designated at fair value	28.1	0.4	0.5	0.2	0.2	1.1		30.5
Total financial liabilities measured at fair value through profit or loss	239.0	11.9	14.0	19.0	5.9	19.6		309.4
Total	819.8	32.7	63.9	38.0	46.1	45.9	13.3	1,059.6
Guarantees, commitments and forward starting transactions								
Loan commitments ⁷	38.3	0.5	0.7	0.0				39.5
Guarantees	21.2							21.2
Forward starting transactions, reverse repurchase and securities borrowing agreements ⁷	1.4							1.4
Total	60.9	0.5	0.7	0.0				62.1

- 1 Except for financial liabilities at fair value held for trading and derivative financial instruments (see footnote 3), the amounts presented generally represent undiscounted cash flows of future interest and principal payments.
- 2 The time-bucket Perpetual / Not applicable includes perpetual loss-absorbing additional tier 1 capital instruments.
- 3 Carrying amount is fair value. Management believes that this best represents the cash flows that would have to be paid if these positions had to be settled or closed out.
- 4 Contractual maturities of financial liabilities at fair value held for trading are: USD 27.8bn due within 1 month (31 December 2021: USD 30.8bn), USD 1.7bn due between 1 month and 1 year (31 December 2021: USD 0.9bn) and USD 0bn due between 1 and 5 years (31 December 2021: USD 0bn).
- 5 Includes USD 46m (31 December 2021: USD 34m) related to fair values of derivative loan commitments and forward starting reverse repurchase agreements classified as derivatives, presented within "Due within 1 month." The full contractual committed amount of USD 34.4bn (31 December 2021: USD 36.0bn) is presented in Note 10 under notional amounts.
- 6 Future interest payments on variable-rate liabilities are determined by reference to the applicable interest rate prevailing as of the reporting date. Future principal payments that are variable are determined by reference to the conditions existing at the relevant reporting date.
- 7 Excludes derivative loan commitments and forward starting reverse repurchase agreements measured at fair value (see footnote 5).

Note 24 Interest rate benchmark reform

Background

A market-wide reform of major interest rate benchmarks is being undertaken globally. The publication of London Interbank Offered Rates (LIBORs) ceased immediately after 31 December 2021 for all non-US dollar LIBORs, as well as for one-week and two-month USD LIBOR. Publication of the remaining USD LIBOR tenors will cease immediately after 30 June 2023.

In December 2022, the FCA consulted on the continued publication of one-, three- and six-month USD LIBOR under a synthetic format until the end of September 2024 to ensure an orderly winding down of remaining contracts that are not governed by US law. In addition, in December 2022, the US Federal Reserve Board adopted the final rules that implement the Adjustable Interest Rate (LIBOR) Act, which is substantially based on, and supersedes, the New York State LIBOR legislation. The Adjustable Interest Rate (LIBOR) Act provides a legislative solution for USD LIBOR legacy products governed by any US state law should such products fail to transition prior to the USD LIBOR cessation date of 30 June 2023.

A framework has been established within UBS to address the transition of contracts that do not contain adequate fallback provisions and to cease entering into new LIBOR contracts, with the exception of specific circumstances that are allowed by regulatory provisions for USD LIBOR.

Governance over the transition to alternative benchmark rates

Throughout the transition process UBS has been maintaining a global cross-divisional, cross-functional governance structure and change program to address the scale and complexity of the transition. This global program is sponsored by the Group CFO and led by senior representatives from the business divisions and UBS's control and support functions. The program includes governance and execution structures within each business division, together with cross-divisional teams from each control and support function. During 2022, progress was overseen centrally via a monthly Group LIBOR Transition Forum with an increased US regional focus.

Risks

A core part of UBS's change program is the identification, management and monitoring of the risks associated with IBOR reform and transition. These risks include, but are not limited to, the following:

- economic risks to UBS and its clients, through the repricing of existing contracts, reduced transparency and / or liquidity of pricing information, market uncertainty or disruption;
- accounting risks, where the transition affects the accounting treatment, including hedge accounting and consequential income statement volatility;
- valuation risks arising from the variation between benchmarks that will cease and ARR, affecting the risk profile of financial instruments;
- operational risks arising from changes to UBS's front-to-back processes and systems to accommodate the transition (e.g., data sourcing and processing and bulk migration of contracts); and
- legal and conduct risks relating to UBS's engagement with clients and market counterparties around new benchmark products and amendments required for existing contracts referencing benchmarks that will cease.

Overall, the effort required to transition is affected by multiple factors, including whether negotiations need to take place with multiple stakeholders (as is the case for syndicated loans or certain listed securities), market readiness and a client's technical readiness to handle ARR market conventions. UBS remains confident that it has the transparency, oversight and operational preparedness to progress with the IBOR transition consistent with market timelines, given the significant progress made as of 31 December 2022. UBS did not have and does not expect changes to its risk management approach and strategy as a result of interest rate benchmark reform.

Transition progress

UBS's significant non-derivative exposures subject to IBOR reform primarily related to brokerage receivable and payable balances, corporate and private loans, and mortgages, linked to CHF and USD LIBORs. During 2020, UBS transitioned most of its CHF LIBOR-linked deposits to the Swiss Average Overnight Rate (SARON). In that same year, UBS launched SARON-based mortgages and corporate loans based on all major ARRs in the Swiss market, as well as Secure Overnight Financing Rate (SOFR)-based mortgages in the US market.

Throughout 2021, UBS transitioned substantially all of its private and corporate loans linked to non-USD IBORs, with the remaining CHF LIBOR-linked contracts transitioning on their first roll date in 2022. In addition, as of 31 December 2021 UBS had completed the transition of IBOR-linked non-derivative financial assets and liabilities related to brokerage accounts, except for balances originated in the US, which transitioned to SOFR in January 2022.

Note 24 Interest rate benchmark reform (continued)

In 2022, UBS focused its efforts on the transition of USD LIBOR and the remaining non-USD LIBOR contracts, by leveraging industry solutions (e.g., the use of fallback provisions), through third-party actions (those by clearing houses, agents, etc.) and bi-lateral contract negotiations. As of 31 December 2022, the transition of non-USD IBORs is substantially complete.

In addition, in 2022, substantially all US securities-based lending has been transitioned to SOFR and UBS continues to make good progress on the transition of the remaining USD LIBOR non-derivative assets and liabilities, with the US mortgage portfolio of USD 9bn (31 December 2021: USD 11bn) the largest remaining exposure left to transition.

In August 2022, to facilitate the transition of derivatives linked to the USD LIBOR Swap Rate, UBS adhered to the June 2022 Benchmark Module of the ISDA 2021 Fallbacks Protocol on the USD LIBOR Swap Rate. UBS will begin gradually transitioning USD LIBOR derivatives not transacted with clearing houses or exchanges from the first quarter of 2023. The transition of USD LIBOR-cleared derivatives is planned to commence in the second quarter of 2023.

As of 31 December 2022, UBS had approximately USD 3bn equivalent of yen- and US dollar-denominated publicly issued benchmark bonds that, per current contractual terms, if not called on their respective call dates, would reset based directly on JPY LIBOR and USD LIBOR. In addition, certain US dollar-denominated benchmark bonds publicly issued by UBS reference rates indirectly derived from IBORs, if they are not called on their respective call dates. These bonds have robust IBOR fallback language and the confirmation of interest rate calculation mechanics will be communicated as market standards formalize and in advance of any rate resets. These debt instruments have not been included in the table below, given their current fixed-rate coupon.

Financial instruments yet to transition to alternative benchmarks

The amounts included in the table below relate to financial instrument contracts across UBS's business divisions where UBS has material exposures subject to IBOR reform that have not yet transitioned to ARR, and that:

- contractually reference an interest rate benchmark that will transition to an alternative benchmark; and
- have a contractual maturity date (including open-ended contracts) after the agreed cessation dates.

Contracts where penalty terms reference IBORs, or where exposure to an IBOR is not the primary purpose of the contract, have not been included, as these contracts do not have a material impact on the transition process.

In line with information provided to management and external parties monitoring UBS's transition progress, the table below includes the following financial metrics for instruments external to the Group that are subject to interest rate benchmark reform:

- gross carrying value / exposure for non-derivative financial instruments; and
- total trade count for derivative financial instruments.

The exposures included in the table below reflect the maximum IBOR exposure, without regard for early termination rights, with the actual exposure being dependent upon client preferences and investment decisions.

As of 31 December 2022, UBS had made significant progress in transitioning LIBOR exposures to ARR. The remaining USD LIBOR-linked exposures included in the table below primarily relate to derivatives and US mortgages, with the transition planned to be completed by 30 June 2023.

	Measure	LIBOR benchmark rates					
		31.12.22 ¹	31.12.21				
		USD	USD	CHF	GBP	EUR ²	JPY
Carrying value of non-derivative financial instruments							
Total non-derivative financial assets	USD m	14,269 ³	65,234 ³	21,616 ⁴	45 ⁵	1	0
Total non-derivative financial liabilities	USD m	1,138 ⁵	1,985 ⁵	27 ⁵	3 ⁵	5 ⁶	0
Trade count of derivative financial instruments							
Total derivative financial instruments	Trade count	32,006 ⁷	40,500 ^{7,8}	829 ⁹	183 ⁹	3,744 ⁹	184 ⁹
Off-balance sheet exposures							
Total irrevocable loan commitments	USD m	4,606 ¹⁰	11,863 ¹¹	0	0	0	0

1 As of 31 December 2022, non-USD balances and trade counts are minimal.

2 Relates primarily to EUR LIBOR positions.

3 Includes USD 1bn (31 December 2021: USD 1bn) of loans related to revolving multi-currency credit lines, where IBOR transition efforts are complete, except for USD LIBOR. Balances as of 31 December 2021 also include USD 37bn USD LIBOR securities-based lending and USD 5bn brokerage accounts, which for the most part transitioned to SOFR in January 2022. The remaining balances as of 31 December 2022 and 31 December 2021 primarily relate to US mortgages and corporate lending.

- 4 Relates primarily to CHF LIBOR mortgages, which have automatically transitioned to SARON on their first roll date in 2022.
- 5 Relates to floating-rate notes that per their contractual terms can reset to rates linked to LIBOR, with transition dependent upon the actions of respective issuers.
- 6 Relates to contracts that transitioned in January 2022.
- 7 Includes approximately 2,000 (31 December 2021: 1,000) contracts having a contractual maturity after 30 June 2023, with the last USD LIBOR fixing occurring before 30 June 2023. No further contractual fixing is required for these contracts.
- 8 Includes approximately 5,000 cross-currency derivatives, of which approximately 500 have both a non-USD LIBOR leg and a USD LIBOR leg, where the non-USD leg transitioned in January 2022 before the next fixing date. The remainder represents cross-currency swaps with an ARR leg and a USD IBOR leg.
- 9 Includes predominantly bilateral derivatives, which transitioned in January 2022, and an insignificant amount of cleared derivatives, where the respective clearing houses' organized transition happened in January 2022.
- 10 Includes approximately USD 3bn of loan commitments that can be drawn in different currencies, however only USD LIBOR transition efforts remain open, with completion scheduled for 2023.
- 11 Includes loan commitments that can be drawn in different currencies at the client's discretion, of which approximately USD 3bn have only USD LIBOR exposure remaining and approximately USD 2bn retain a non-USD LIBOR interest rate, with transition dependent upon the actions of other parties. The remainder represents loan commitments that can be drawn in US dollars only and will transition on or before 30 June 2023.

Note 25 Hedge accounting

Derivatives designated in hedge accounting relationships

The Group applies hedge accounting to interest rate risk and foreign exchange risk, including structural foreign exchange risk related to net investments in foreign operations.

- **Refer to “Market risk” in the “Risk management and control” section of this report for more information about how risks arise and how they are managed by the Group**

Hedging instruments and hedged risk

Interest rate swaps are designated in fair value hedges or cash flow hedges of interest rate risk arising solely from changes in benchmark interest rates. Fair value changes arising from such risk are usually the largest component of the overall change in the fair value of the hedged position in transaction currency.

Cross-currency swaps are designated as fair value hedges of foreign exchange risk. Foreign exchange forwards and foreign exchange swaps are mainly designated as hedges of structural foreign exchange risk related to net investments in foreign operations. In both cases the hedged risk arises solely from changes in the spot foreign exchange rate.

The notional of the designated hedging instruments matches the notional of the hedged items, except when the interest rate swaps are re-designated in cash flow hedges, in which case the hedge ratio designated is determined based on the swap sensitivity.

Hedged items and hedge designation

Fair value hedges of interest rate risk related to debt instruments and loan assets

Fair value hedges of interest rate risk related to debt instruments and loan assets involve swapping fixed cash flows associated with the debt issued, debt securities held and long-term fixed-rate mortgage loans in Swiss francs to floating cash flows by entering into interest rate swaps that either receive fixed and pay floating cash flows or that pay fixed and receive floating cash flows.

Designations have been made in US dollars, euro, Swiss francs, Australian dollars, yen, pounds sterling and Singapore dollars. For new hedging instruments and hedged risk designations entered into starting from 2021 in these currencies (with the exception of euro), the benchmark rate was the relevant alternative reference rate (ARR). Following the interbank offered rate (IBOR) transition for swaps with LCH (formerly the London Clearing House) in December 2021, the benchmark hedge rate for Swiss franc, yen and pound sterling designations was changed from an IBOR rate to the relevant ARR with the hedge relationship continuing in accordance with *Interest Rate Benchmark Reform – Phase 2 (Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16)*.

Cash flow hedges of forecast transactions

The Group hedges forecast cash flows on non-trading financial assets and liabilities that bear interest at variable rates or are expected to be refinanced or reinvested in the future, due to movements in future market rates. The amounts and timing of future cash flows, representing both principal and interest flows, are projected on the basis of contractual terms and other relevant factors, including estimates of prepayments and defaults. The aggregate principal balances and interest cash flows across all portfolios over time form the basis for identifying the non-trading interest rate risk of the Group, which is hedged with interest rate swaps, the maximum maturity of which is 15 years. Cash flow forecasts and risk exposures are monitored and adjusted on an ongoing basis, and consequently additional hedging instruments are traded and designated, or are terminated resulting in a hedge discontinuance. Hedge designations have been made in the following currencies: US dollars, euro, Swiss francs, pounds sterling and Hong Kong dollars. The cash flow hedges in Swiss francs, pounds sterling and certain cash flow hedges in US dollars were discontinued and replaced with new ARR designations in December 2021. In addition, the transition of floating rate hedged items in USD to ARR rates in January 2022 resulted in the update of the hedged risk to ARR in the affected hedge relationships without discontinuation of hedge accounting in accordance with *Interest Rate Benchmark Reform – Phase 2 (Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16)*.

Fair value hedges of foreign exchange risk related to issued debt instruments

Debt instruments denominated in currencies other than the US dollar are designated in fair value hedges of spot foreign exchange risk, in addition to and separate from the fair value hedges of interest rate risk. Cross-currency swaps economically convert debt denominated in currencies other than the US dollar to US dollars.

Hedges of net investments in foreign operations

The Group applies hedge accounting for certain net investments in foreign operations, which include subsidiaries, branches and associates. Upon maturity of hedging instruments, typically two months, the hedge relationship is terminated and new designations are made to reflect any changes in the net investments in foreign operations.

Note 25 Hedge accounting (continued)

Economic relationship between hedged item and hedging instrument

The economic relationship between the hedged item and the hedging instrument is determined based on a qualitative analysis of their critical terms. In cases where hedge designation takes place after origination of the hedging instrument, a quantitative analysis of the possible behavior of the hedging derivative and the hedged item during their respective terms is also performed.

Sources of hedge ineffectiveness

In hedges of interest rate risk, hedge ineffectiveness can arise from mismatches of critical terms and / or the use of different curves to discount the hedged item and instrument, or from entering into a hedge relationship after the trade date of the hedging derivative.

In hedges of foreign exchange risk related to debt issued, hedge ineffectiveness can arise due to the discounting of the hedging instruments and undesignated risk components and lack of such discounting and risk components in the hedged items.

In hedges of net investments in foreign operations, ineffectiveness is unlikely unless the hedged net assets fall below the designated hedged amount. The exceptions are hedges where the hedging currency is not the same as the currency of the foreign operation, where the currency basis may cause ineffectiveness.

Hedge ineffectiveness from financial instruments measured at fair value through profit or loss is recognized in *Other net income*.

Derivatives not designated in hedge accounting relationships

Non-hedge accounted derivatives are mandatorily held for trading with all fair value movements taken to *Other net income from financial instruments measured at fair value through profit or loss*, even when held as an economic hedge or to facilitate client clearing. The one exception relates to forward points on certain short- and long-duration foreign exchange contracts acting as economic hedges, which are reported in *Net interest income*.

All hedges: designated hedging instruments and hedge ineffectiveness

	As of or for the year ended					
	31.12.22					
	Carrying amount					
<i>USD m</i>	Notional amount	Derivative financial assets	Derivative financial liabilities	Changes in fair value of hedging instruments ¹	Changes in fair value of hedged items ¹	Hedge ineffectiveness recognized in the income statement
Interest rate risk						
Fair value hedges	92,415	0	0	(5,195)	5,169	(27)
Cash flow hedges	75,304	2	5	(5,813)	5,760	(53)
Foreign exchange risk						
Fair value hedges ²	20,566	845	3	(1,088)	1,105	18
Hedges of net investments in foreign operations	14,009	7	529	336	(337)	(1)

	As of or for the year ended					
	31.12.21					
	Carrying amount					
<i>USD m</i>	Notional amount	Derivative financial assets	Derivative financial liabilities	Changes in fair value of hedging instruments ¹	Changes in fair value of hedged items ¹	Hedge ineffectiveness recognized in the income statement
Interest rate risk						
Fair value hedges	89,525	0	7	(1,604)	1,602	(2)
Cash flow hedges	79,573	12	1	(1,185)	990	(196)
Foreign exchange risk						
Fair value hedges ²	27,875	87	261	(2,139)	2,181	42
Hedges of net investments in foreign operations	13,939	23	105	497	(497)	0

1 Amounts used as the basis for recognizing hedge ineffectiveness for the period.

2 The foreign currency basis spread of cross-currency swaps designated as hedging derivatives is excluded from the hedge accounting designation and accounted for as a cost of hedging with amounts deferred in Other comprehensive income within Equity.

Note 25 Hedge accounting (continued)

Fair value hedges: designated hedged items

<i>USD m</i>	31.12.22		31.12.21	
	Interest rate risk	FX risk	Interest rate risk	FX risk
Debt issued measured at amortized cost				
Carrying amount of designated debt issued	68,529	20,566	74,700	27,875
<i>of which: accumulated amount of fair value hedge adjustment</i>	(6,057)		478	
Other financial assets measured at amortized cost – debt securities				
Carrying amount of designated debt securities	4,577		2,677	
<i>of which: accumulated amount of fair value hedge adjustment</i>	(180)		(7)	
Loans and advances to customers				
Carrying amount of designated loans	14,270		13,835	
<i>of which: accumulated amount of fair value hedge adjustment</i>	(1,249)		(109)	
<i>of which: accumulated amount of fair value hedge adjustment subject to amortization attributable to the portion of the portfolio that ceased to be part of hedge accounting</i>	(51)		3	

Fair value hedges: profile of the timing of the nominal amount of the hedging instrument

<i>USD bn</i>	31.12.22					Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 5 years	Due after 5 years	
Interest rate swaps	0	4	10	53	26	92
Cross-currency swaps	0	1	2	12	5	21

<i>USD bn</i>	31.12.21					Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 5 years	Due after 5 years	
Interest rate swaps	0	8	10	49	22	90
Cross-currency swaps	1	1	6	13	6	28

Cash flow hedge reserve on a pre-tax basis

<i>USD m</i>	31.12.22	31.12.21
Amounts related to hedge relationships for which hedge accounting continues to be applied	(4,692)	26
Amounts related to hedge relationships for which hedge accounting is no longer applied	(540)	743
Total other comprehensive income recognized directly in equity related to cash flow hedges, on a pre-tax basis	(5,232)	769

Foreign currency translation reserve on a pre-tax basis

<i>USD m</i>	31.12.22	31.12.21
Amounts related to hedge relationships for which hedge accounting continues to be applied	284	(45)
Amounts related to hedge relationships for which hedge accounting is no longer applied	266	262
Total other comprehensive income recognized directly in equity related to hedging instruments designated as net investment hedges, on a pre-tax basis	550	217

Interest rate benchmark reform

The Group continues to apply the relief provided by *Interest Rate Benchmark Reform (amendments to IFRS 9, IAS 39 and IFRS 7)*, published by the IASB in September 2019, mainly to its hedges in USD. The cessation date for USD LIBOR is 30 June 2023.

The following table provides details on the notional amount and carrying amount of the hedging instruments in the hedge relationships where the designated risk is LIBOR and maturing after the cessation date of the applicable interest rate benchmarks.

Hedges of net investments in foreign operations are not affected by the amendments.

- **Refer to Note 1a item 2j for more information about the relief provided by the amendments to IFRS 9 and IFRS 7 related to interest rate benchmark reform**
- **Refer to Note 24 for more information about the transition progress**
- **Refer to earlier parts of this Note for the information about the transition progress of fair value and cash flow hedges**

Note 25 Hedge accounting (continued)

Hedging instruments referencing LIBOR

<i>USD m</i>	31.12.22			31.12.21		
	Notional amount	Carrying amount		Notional amount	Carrying amount	
Derivative financial assets		Derivative financial liabilities	Derivative financial assets		Derivative financial liabilities	
Interest rate risk						
Fair value hedges	20,383	0	0	23,367	0	0
Cash flow hedges	2,179	0	0	10,803	0	0

Note 26 Post-employment benefit plans

a) Defined benefit plans

UBS has established defined benefit plans for its employees in various jurisdictions in accordance with local regulations and practices. The major plans are located in Switzerland, the UK, the US and Germany. The level of benefits depends on the specific plan rules.

Swiss pension plan

The Swiss pension plan covers employees of UBS Group AG in Switzerland and employees of companies in Switzerland having close economic or financial ties with UBS Group AG, and exceeds the minimum benefit requirements under Swiss pension law. The Swiss plan offers retirement, disability and survivor benefits and is governed by a Pension Foundation Board. The responsibilities of this board are defined by Swiss pension law and the plan rules.

Savings contributions to the Swiss plan are paid by both employer and employee. Depending on the age of the employee, UBS pays a savings contribution that ranges between 6.5% and 27.5% of contributory base salary and between 2.8% and 9% of contributory variable compensation. UBS also pays risk contributions that are used to fund disability and survivor benefits. Employees can choose the level of savings contributions paid by them, which vary between 2.5% and 13.5% of contributory base salary and between 0% and 9% of contributory variable compensation, depending on age and choice of savings contribution category.

The plan offers to members at the normal retirement age of 65 a choice between a lifetime pension and a partial or full lump sum payment. Participants can choose to draw early retirement benefits starting from the age of 58, but can also continue employment and remain active members of the plan until the age of 70. Employees have the opportunity to make additional purchases of benefits to fund early retirement benefits.

The pension amount payable to a participant is calculated by applying a conversion rate to the accumulated balance of the participant's retirement savings account at the retirement date. The balance is based on credited vested benefits transferred from previous employers, purchases of benefits, and the employee and employer contributions that have been made to the participant's retirement savings account, as well as the interest accrued. The annual interest rate credited to participants is determined by the Pension Foundation Board at the end of each year.

Although the Swiss plan is based on a defined contribution promise under Swiss pension law, it is accounted for as a defined benefit plan under International Financial Reporting Standards (IFRS), primarily because of the obligation to accrue interest on the participants' retirement savings accounts and the payment of lifetime pension benefits.

An actuarial valuation in accordance with Swiss pension law is performed regularly. Should an underfunded situation on this basis occur, the Pension Foundation Board is required to take the necessary measures to ensure that full funding can be expected to be restored within a maximum period of 10 years. If a Swiss plan were to become significantly underfunded on a Swiss pension law basis, additional employer and employee contributions could be required. In this situation, the risk is shared between employer and employees, and the employer is not legally obliged to cover more than 50% of the additional contributions required. As of 31 December 2022, the Swiss plan had a technical funding ratio in accordance with Swiss pension law of 119.0% (31 December 2021: 134.8%).

The investment strategy of the Swiss plan complies with Swiss pension law, including the rules and regulations relating to diversification of plan assets, and is derived from the risk budget defined by the Pension Foundation Board on the basis of regularly performed asset and liability management analyses. The Pension Foundation Board strives for a medium- and long-term balance between assets and liabilities.

As of 31 December 2022, the Swiss plan was in a surplus situation on an IFRS measurement basis, as the fair value of the plan's assets exceeded the defined benefit obligation (DBO) by USD 7,848m (31 December 2021: USD 6,577m). However, a surplus is only recognized on the balance sheet to the extent that it does not exceed the estimated future economic benefit, which equals the difference between the present value of the estimated future net service cost and the present value of the estimated future employer contributions. As of both 31 December 2022 and 31 December 2021, the estimated future economic benefit was zero and hence no net defined benefit asset was recognized on the balance sheet.

Note 26 Post-employment benefit plans (continued)

Changes to the Swiss pension plan in 2019

The Pension Foundation Board and UBS agreed to implement measures that took effect from the start of 2019 to support the long-term financial stability of the Swiss pension fund. The measures, among other things, lowered the conversion rate and increased the normal retirement age from 64 to 65. Pensions already in payment on 1 January 2019 were not affected. To mitigate the effects for active participants, UBS committed to pay an extraordinary contribution and contributed CHF 646m (USD 698m) in three installments in 2020, 2021 and 2022. The installments of USD 235m, USD 254m and USD 209m paid in 2020, 2021 and 2022 reduced other comprehensive income with no effect on the income statement. The regular employer contributions to be made to the Swiss plan in 2023 are estimated at USD 480m.

UK pension plan

The UK plan is a career-average revalued earnings scheme, and benefits increase automatically based on UK price inflation, subject to defined caps. The normal retirement age for participants in the UK plan is 60. The plan provides guaranteed lifetime pension benefits to participants upon retirement. The UK plan has been closed to new entrants for more than 20 years and, since 2013, participants are no longer accruing benefits for current or future service. Instead, employees participate in the UK defined contribution plan.

The governance responsibility for the UK plan lies jointly with the Pension Trustee Board and UBS. The employer contributions to the pension fund reflect agreed-upon deficit funding contributions, which are determined on the basis of the most recent actuarial valuation using assumptions agreed by the Pension Trustee Board and UBS. In the event of underfunding, UBS and the Pension Trustee Board must agree on a deficit recovery plan within statutory deadlines. In 2022, UBS made deficit funding contributions of USD 5m to the UK plan. In 2021, UBS made no deficit funding contributions.

The plan assets are invested in a diversified portfolio of financial assets, which include longevity swaps with an external insurance company. These swaps enable the UK pension plan to hedge the risk between expected and actual longevity, which should mitigate volatility in the net defined benefit asset / liability. As of 31 December 2022, the longevity swaps had a negative value of USD 1m (31 December 2021: negative USD 3m).

In 2019, UBS and the Pension Trustee Board entered into an arrangement whereby a collateral pool was established to provide security for the pension fund. The value of the collateral pool as of 31 December 2022 was USD 292m (31 December 2021: USD 337m) and includes corporate bonds, government-related debt instruments and other financial assets. The arrangement provides the Pension Trustee Board dedicated access to a pool of assets in the event of UBS's insolvency or not paying a required deficit funding contribution.

The employer contributions to be made to the UK defined benefit plan in 2023 are estimated at USD 18m, subject to regular funding reviews during the year.

US pension plans

There are two distinct major defined benefit plans in the US, with a normal retirement age of 65. Both plans were closed to new entrants more than 20 years ago. Since they closed, new employees have participated in a defined contribution plan. One of the defined benefit plans is a contribution-based plan in which each participant accrues a percentage of salary in a retirement savings account. The retirement savings account is credited annually with interest based on a rate that is linked to the average yield on one-year US government bonds. For the other defined benefit plan, retirement benefits accrue based on the career-average earnings of each individual plan participant. Former employees with vested benefits have the option of taking a lump sum payment or a lifetime annuity.

As required under applicable pension laws, both plans have fiduciaries who, together with UBS, are responsible for the governance of the plans.

The plan assets of both plans are invested in diversified portfolios of financial assets. Each plan's fiduciaries are responsible for the investment decisions with respect to the plan assets.

The employer contributions to be made to the US defined benefit plans in 2023 are estimated at USD 11m.

German pension plans

There are two unfunded defined benefit plans in Germany. The normal retirement age is 65 and benefits are paid directly by UBS. In the larger of the two plans each participant accrues a percentage of salary in a retirement savings account. The accumulated account balance of the participant is credited on an annual basis with guaranteed interest at a rate of 5%. The plan has been closed to new entrants, and all participants younger than the age of 55 as of June 2021 no longer accrue benefits. In the other plan, amounts are accrued annually based on employee elections related to variable compensation. For this plan, the accumulated account balance is credited on an annual basis with a guaranteed interest rate of 6% for amounts accrued before 2010, of 4% for amounts accrued from 2010 to 2017 and of 0.9% for amounts accrued after 2017. Both plans are subject to German pension law, whereby the responsibility to pay pension benefits when they are due resides entirely with UBS. A portion of the pension payments is directly increased in line with price inflation.

Note 26 Post-employment benefit plans (continued)

In June 2021, UBS implemented a new funded pension plan with interest credited to participants equal to actual investment returns with a guaranteed minimum of 0%. The plan was implemented retrospectively for new hires since June 2018 and for all eligible active participants younger than 55 from July 2021. Each participant accrues a percentage of salary in a retirement savings account.

The employer contributions to be made to the German defined benefit plans in 2023 are estimated at USD 12m.

Financial information by plan

The tables below provide an analysis of the movement in the net asset / liability recognized on the balance sheet for defined benefit plans, as well as an analysis of amounts recognized in net profit and in *Other comprehensive income*.

Defined benefit plans

USD m	Swiss pension plan		UK pension plan		US and German pension plans		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Defined benefit obligation at the beginning of the year	27,398	27,728	4,105	4,162	1,740	1,905	33,242	33,795
Current service cost	416	494	0	0	5	6	420	500
Interest expense	344	58	67	58	35	30	446	147
Plan participant contributions	257	266	0	0	0	0	257	266
Remeasurements	(4,151)	837	(1,474)	71	(267)	(62)	(5,891)	846
<i>of which: actuarial (gains) / losses due to changes in demographic assumptions</i>	3	51	(6)	14	1	4	(2)	69
<i>of which: actuarial (gains) / losses due to changes in financial assumptions</i>	(4,666)	(678)	(1,575)	(3)	(279)	(78)	(6,520)	(759)
<i>of which: experience (gains) / losses¹</i>	512	1,464	107	59	11	12	631	1,535
Past service cost related to plan amendments	0	0	0	0	0	4	0	4
Curtailments	(20)	(80)	0	0	0	0	(20)	(80)
Benefit payments	(1,454)	(1,097)	(123)	(148)	(111)	(112)	(1,687)	(1,357)
Other movements	(5)	0	0	0	0	1	(5)	1
Foreign currency translation	(513)	(809)	(408)	(38)	(28)	(33)	(949)	(880)
Defined benefit obligation at the end of the year	22,272	27,398	2,166	4,105	1,375	1,740	25,813	33,242
<i>of which: amounts owed to active members</i>	11,927	14,333	65	150	169	222	12,160	14,705
<i>of which: amounts owed to deferred members</i>	0	0	656	1,593	528	669	1,184	2,262
<i>of which: amounts owed to retirees</i>	10,345	13,065	1,445	2,362	678	849	12,469	16,276
<i>of which: funded plans</i>	22,272	27,398	2,166	4,105	1,011	1,222	25,449	32,724
<i>of which: unfunded plans</i>	0	0	0	0	363	518	363	518
Fair value of plan assets at the beginning of the year	33,975	32,590	4,297	4,149	1,329	1,360	39,601	38,100
Return on plan assets excluding interest income	(3,248)	2,322	(1,312)	277	(223)	40	(4,782)	2,639
Interest income	485	74	70	58	31	26	586	159
Employer contributions	685	763	5	0	16	16	706	779
Plan participant contributions	257	266	0	0	0	0	257	266
Benefit payments	(1,454)	(1,097)	(123)	(148)	(111)	(112)	(1,687)	(1,357)
Administration expenses, taxes and premiums paid	(12)	(13)	0	0	(3)	(4)	(16)	(17)
Other movements	(2)	0	0	0	0	1	(2)	1
Foreign currency translation	(567)	(930)	(450)	(39)	0	0	(1,017)	(969)
Fair value of plan assets at the end of the year	30,119	33,975	2,488	4,297	1,039	1,329	33,646	39,601
Surplus / (deficit)	7,848	6,577	321	192	(335)	(411)	7,834	6,358
Asset ceiling effect at the beginning of the year	6,577	4,862	0	0	0	0	6,577	4,862
Interest expense on asset ceiling effect	135	15	0	0	0	0	135	15
Asset ceiling effect excluding interest expense and foreign currency translation on asset ceiling effect	1,189	1,821	0	0	0	0	1,189	1,821
Foreign currency translation	(54)	(121)	0	0	0	0	(54)	(121)
Asset ceiling effect at the end of the year	7,848	6,577	0	0	0	0	7,848	6,577
Net defined benefit asset / (liability) of major plans	0	0	321	192	(335)	(411)	(14)	(219)
Net defined benefit asset / (liability) of remaining plans							(100)	(112)
Total net defined benefit asset / (liability)							(114)	(331)
<i>of which: Net defined benefit asset</i>							355	302
<i>of which: Net defined benefit liability²</i>							(469)	(633)

- 1 Experience (gains) / losses are a component of actuarial remeasurements of the defined benefit obligation and reflect the effects of differences between the previous actuarial assumptions and what has actually occurred.
- 2 Refer to Note 18c.

Note 26 Post-employment benefit plans (continued)

Income statement – expenses related to defined benefit plans¹

<i>USD m</i> For the year ended	Swiss pension plan		UK pension plan		US and German pension plans		Total	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Current service cost	416	494	0	0	5	6	420	500
Interest expense related to defined benefit obligation	344	58	67	58	35	30	446	147
Interest income related to plan assets	(485)	(74)	(70)	(58)	(31)	(26)	(586)	(159)
Interest expense on asset ceiling effect	135	15	0	0	0	0	135	15
Administration expenses, taxes and premiums paid	12	13	0	0	3	4	16	17
Past service cost related to plan amendments	0	0	0	0	0	4	0	4
Curtailments	(20)	(80)	0	0	0	0	(20)	(80)
Net periodic expenses recognized in net profit for major plans	402	426	(3)	0	12	18	411	444
Net periodic expenses recognized in net profit for remaining plans²							25	25
Total net periodic expenses recognized in net profit							437	470

1 Refer to Note 6. 2 Includes differences between actual and estimated performance award accruals.

Other comprehensive income – gains / (losses) on defined benefit plans

<i>USD m</i> For the year ended	Swiss pension plan		UK pension plan		US and German pension plans		Total	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Remeasurement of defined benefit obligation	4,151	(837)	1,474	(71)	267	62	5,891	(846)
<i>of which: change in discount rate assumption</i>	5,414	870	1,451	319	317	77	7,183	1,267
<i>of which: change in rate of pension increase assumption</i>	0	0	123	(316)	(5)	(1)	118	(318)
<i>of which: change in rate of interest credit on retirement savings assumption</i>	(718)	(193)	0	0	(82)	(1)	(800)	(194)
<i>of which: change in life expectancy</i>	0	0	5	9	(1)	(3)	4	5
<i>of which: change in other actuarial assumptions</i>	(33)	(50)	1	(23)	48	2	16	(71)
<i>of which: experience gains / (losses)¹</i>	(512)	(1,464)	(107)	(59)	(11)	(12)	(631)	(1,535)
Return on plan assets excluding interest income	(3,248)	2,322	(1,312)	277	(223)	40	(4,782)	2,639
Asset ceiling effect excluding interest expense and foreign currency translation	(1,189)	(1,821)	0	0	0	0	(1,189)	(1,821)
Total gains / (losses) recognized in other comprehensive income for major plans	(285)	(336)	162	207	43	102	(80)	(28)
Total gains / (losses) recognized in other comprehensive income for remaining plans							7	30
Total gains / (losses) recognized in other comprehensive income²							(73)	2

1 Experience (gains) / losses are a component of actuarial remeasurements of the defined benefit obligation and reflect the effects of differences between the previous actuarial assumptions and what has actually occurred.

2 Refer to the “Statement of comprehensive income.”

The table below provides information about the duration of the DBO and the timing for expected benefit payments.

	Swiss pension plan		UK pension plan		US and German pension plans ¹	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Duration of the defined benefit obligation (in years)	13.1	15.1	13.7	18.8	7.9	9.5
Maturity analysis of benefits expected to be paid						
<i>USD m</i>						
Benefits expected to be paid within 12 months	1,294	1,312	107	110	123	123
Benefits expected to be paid between 1 and 3 years	2,657	2,636	234	248	232	237
Benefits expected to be paid between 3 and 6 years	3,977	3,824	384	418	335	338
Benefits expected to be paid between 6 and 11 years	6,743	6,220	667	743	502	495
Benefits expected to be paid between 11 and 16 years	6,223	5,572	667	751	388	392
Benefits expected to be paid in more than 16 years	22,446	18,092	2,570	3,028	516	519

1 The duration of the defined benefit obligation represents a weighted average across US and German plans.

Note 26 Post-employment benefit plans (continued)

Actuarial assumptions

The actuarial assumptions used for the defined benefit plans are based on the economic conditions prevailing in the jurisdiction in which they are offered. Changes in the defined benefit obligation are most sensitive to changes in the discount rate. The discount rate is based on the yield of high-quality corporate bonds quoted in an active market in the currency of the respective plan. A decrease in the discount curve increases the DBO. UBS regularly reviews the actuarial assumptions used in calculating the DBO to determine their continuing relevance.

- Refer to Note 1a item 5 for a description of the accounting policy for defined benefit plans

The tables below show the significant actuarial assumptions used in calculating the DBO at the end of the year.

Significant actuarial assumptions

In%	Swiss pension plan		UK pension plan		US pension plans		German pension plans	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Discount rate	2.34	0.34	5.02	1.82	4.92 ¹	2.47 ¹	3.81	0.99
Rate of pension increase	0.00	0.00	3.08	3.32	0.00	0.00	2.20	1.80
Rate of interest credit on retirement savings	3.39	1.04	0.00	0.00	5.73 ²	1.18 ²	0.00	0.00

1 Represents weighted average across US pension plans.

2 Only applicable to one of the US pension plans

Mortality tables and life expectancies for major plans

Country	Mortality table	Life expectancy at age 65 for a male member currently			
		aged 65		aged 45	
		31.12.22	31.12.21	31.12.22	31.12.21
Switzerland	BVG 2020 G with CMI 2021 projections ¹	21.7	21.7	23.4	23.3
UK	S3PA with CMI 2021 projections ²	23.5	23.4	24.6	24.5
USA	Pri-2012 with MP-2021 projection scale	22.0	21.9	23.3	23.3
Germany	Dr. K. Heubeck 2018 G	20.6	20.5	23.4	23.2

Country	Mortality table	Life expectancy at age 65 for a female member currently			
		aged 65		aged 45	
		31.12.22	31.12.21	31.12.22	31.12.21
Switzerland	BVG 2020 G with CMI 2021 projections ¹	23.5	23.4	25.1	25.0
UK	S3PA with CMI 2021 projections ²	25.0	24.9	26.4	26.3
USA	Pri-2012 with MP-2021 projection scale	23.4	23.3	24.8	24.7
Germany	Dr. K. Heubeck 2018 G	24.0	23.9	26.3	26.1

1 In 2021, BVG 2020 G with CMI 2019 projections was used.

2 In 2021, S3PA with CMI 2020 projections was used.

Sensitivity analysis of significant actuarial assumptions

The table below presents a sensitivity analysis for each significant actuarial assumption, showing how the DBO would have been affected by changes in the relevant actuarial assumption that were reasonably possible at the balance sheet date. Unforeseen circumstances may arise, which could result in variations that are outside the range of alternatives deemed reasonably possible. Caution should be used in extrapolating the sensitivities below on the DBO, as the sensitivities may not be linear.

Sensitivity analysis of significant actuarial assumptions¹

Increase / (decrease) in defined benefit obligation USD m	Swiss pension plan		UK pension plan		US and German pension plans	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Discount rate						
Increase by 50 basis points	(1,128)	(1,695)	(141)	(361)	(51)	(78)
Decrease by 50 basis points	1,269	1,933	157	411	55	84
Rate of pension increase						
Increase by 50 basis points	877	1,333	127	334	4	6
Decrease by 50 basis points	— ²	— ²	(118)	(306)	(3)	(6)
Rate of interest credit on retirement savings						

Increase by 50 basis points	178	224	— ³	— ³	9	8
Decrease by 50 basis points	(178)	(224)	— ³	— ³	(8)	(7)
Life expectancy						
Increase in longevity by one additional year	593	915	65	184	39	56

- 1 The sensitivity analyses are based on a change in one assumption while holding all other assumptions constant, so that interdependencies between the assumptions are excluded.
- 2 As the assumed rate of pension increase was 0% as of 31 December 2022 and as of 31 December 2021, a downward change in assumption is not applicable.
- 3 As the UK plan does not provide interest credits on retirement savings, a change in assumption is not applicable.

Note 26 Post-employment benefit plans (continued)

Fair value of plan assets

The tables below provide information about the composition and fair value of plan assets of the major pension plans.

Composition and fair value of plan assets

Swiss pension plan

USD m	31.12.22				31.12.21			
	Fair value			Plan asset allocation%	Fair value			Plan asset allocation%
	Quoted in an active market	Other	Total		Quoted in an active market	Other	Total	
Cash and cash equivalents	326	0	326	1	187	0	187	1
Real estate / property								
Domestic	0	3,783	3,783	13	0	3,530	3,530	10
Foreign	0	919	919	3	0	580	580	2
Investment funds								
Equity								
Domestic	743	0	743	2	843	0	843	2
Foreign	4,964	2,171	7,134	24	6,213	2,652	8,865	26
Bonds ¹								
Domestic, AAA to BBB–	3,760	0	3,760	12	4,446	0	4,446	13
Foreign, AAA to BBB–	6,031	0	6,031	20	5,093	0	5,093	15
Foreign, below BBB–	1,062	0	1,062	4	1,314	0	1,314	4
Other	1,540	3,547	5,086	17	4,211	3,558	7,769	23
Other investments	624	651	1,275	4	668	682	1,349	4
Total fair value of plan assets	19,049	11,071	30,119	100	22,973	11,002	33,975	100
Total fair value of plan assets			30,119				33,975	
<i>of which:²</i>								
Bank accounts at UBS			337				194	
UBS debt instruments			50				28	
UBS shares			27				25	
Securities lent to UBS ³			871				1,079	
Property occupied by UBS			90				93	
Derivative financial instruments, counterparty UBS ³			76				128	

- 1 The bond credit ratings are primarily based on S&P's credit ratings. Ratings AAA to BBB– and below BBB– represent investment grade and non-investment grade ratings, respectively. In cases where credit ratings from other rating agencies were used, these were converted to the equivalent rating in S&P's rating classification.
- 2 Bank accounts at UBS encompass accounts in the name of the Swiss pension fund. The other positions disclosed in the table encompass both direct investments in UBS instruments and indirect investments, i.e., those made through funds that the pension fund invests in.
- 3 Securities lent to UBS and derivative financial instruments are presented gross of any collateral. Securities lent to UBS were fully covered by collateral as of 31 December 2022 and 31 December 2021. Net of collateral, derivative financial instruments amounted to negative USD 8m as of 31 December 2022 (31 December 2021: positive USD 43m).

Domestic	0	11	11	1	0	9	9	1
Other	54	0	54	5	99	0	99	7
Other investments	5	1	6	1	5	1	6	0
Total fair value of plan assets	1,027	12	1,039	100	1,319	10	1,329	100

1 The bond credit ratings are primarily based on S&P's credit ratings. Ratings AAA to BBB– and below BBB– represent investment grade and non-investment grade ratings, respectively. In cases where credit ratings from other rating agencies were used, these were converted to the equivalent rating in S&P's rating classification.

Note 26 Post-employment benefit plans (continued)

b) Defined contribution plans

UBS sponsors a number of defined contribution plans, with the most significant plans in the US and the UK. UBS's obligation is limited to its contributions made in accordance with each plan, which may include direct contributions and matching contributions. Employer contributions to defined contribution plans are recognized as an expense and were USD 357m in 2022, USD 363m in 2021 and USD 343m in 2020.

- **Refer to Note 6 for more information**

c) Related-party disclosure

UBS is the principal provider of banking services for the pension fund of UBS in Switzerland. In this capacity, UBS is engaged to execute most of the pension fund's banking activities. These activities can include, but are not limited to, trading, securities lending and borrowing and derivative transactions. The non-Swiss UBS pension funds do not have a similar banking relationship with UBS. During 2022, UBS received USD 36m in fees for banking services from the major post-employment benefit plans (2021: USD 39m). As of 31 December 2022, the major post-employment benefit plans held USD 265m in UBS shares (31 December 2021: USD 252m).

- **Refer to the "Composition and fair value of plan assets" table in Note 26a for more information about fair value of investments in UBS instruments held by the Swiss pension fund**

Note 27 Employee benefits: variable compensation

a) Plans offered

The Group has several share-based and other deferred compensation plans that align the interests of Group Executive Board (GEB) members and other employees with the interests of investors.

Share-based awards are granted in the form of notional shares and, where permitted, carry a dividend equivalent that may be paid in notional shares or cash. Awards are settled by delivering UBS shares at vesting, except in jurisdictions where this is not permitted for legal or tax reasons.

Deferred compensation awards are generally forfeitable upon, among other circumstances, voluntary termination of employment with UBS. These compensation plans are also designed to meet regulatory requirements and include special provisions for regulated employees.

The most significant deferred compensation plans are described below.

- **Refer to Note 1a item 4 for a description of the accounting policy related to share-based and other deferred compensation plans**

Mandatory deferred compensation plans

Long-Term Incentive Plan

The Long-Term Incentive Plan (LTIP) is a mandatory deferred share-based compensation plan for GEB members for the performance year 2022. For prior performance years, LTIP was granted to senior leaders of the Group (i.e., GEB members and selected senior management).

The number of notional shares delivered at vesting depends on two equally weighted performance metrics over a three-year performance period: return on common equity tier 1 (CET1) capital and relative total shareholder return, which compares the total shareholder return (TSR) of UBS with the TSR of an index consisting of listed Global Systemically Important Banks as determined by the Financial Stability Board (excluding UBS). The final number of shares vest over three years following the performance period for GEB members, and cliff-vest in the year following the performance period for selected senior management.

Equity Ownership Plan / Fund Ownership Plan

The Equity Ownership Plan (EOP) is the deferred share-based compensation plan for employees outside of the GEB that are subject to deferral requirements. EOP awards generally vest over three years.

Certain Asset Management employees receive some or all of their EOP in the form of notional funds (Fund Ownership Plan or FOP, previously named AM EOP). This plan is generally delivered in cash and vests over three years. The amount delivered depends on the value of the underlying investment funds at the time of vesting.

Deferred Contingent Capital Plan

The Deferred Contingent Capital Plan (DCCP) is a deferred compensation plan for all employees who are subject to deferral requirements. Such

employees are awarded notional additional tier 1 (AT1) capital instruments, which, at the discretion of UBS, can be settled in cash or a perpetual, marketable AT1 capital instrument. DCCP awards generally bear notional interest paid annually (except for certain regulated employees) and vest in full after five years. Awards are forfeited if a viability event occurs (i.e., if FINMA notifies the firm that the DCCP awards must be written down to mitigate the risk of insolvency, bankruptcy or failure of UBS) or if the firm receives a commitment of extraordinary support from the public sector that is necessary to prevent such an event. DCCP awards are also written down if the Group's CET1 capital ratio falls below a defined threshold. In addition, GEB members forfeit 20% of DCCP awards for each loss-making year during the vesting period.

Note 27 Employee benefits: variable compensation (continued)

Financial advisor variable compensation

In line with market practice for US wealth management businesses, the compensation for US financial advisors in Global Wealth Management consists of cash compensation and deferred compensation awards, determined using a formulaic approach based on production.

Cash compensation reflects a percentage of the compensable production that each financial advisor generates. Compensable production is generally based on transaction revenue and investment advisory fees and may reflect further adjustments. The percentage rate generally varies based on the level of the production and firm tenure.

Financial advisors may also be granted annual deferred compensation. These amounts generally vest over a six-year period. The annual deferred compensation amount reflects the overall percentage rate and production.

Cash compensation and deferred compensation awards may be reduced for, among other things, errors, negligence or carelessness, or failure to comply with the firm's rules, standards, practices and / or policies, and / or applicable laws and regulations.

Financial advisors may also participate in additional programs to support promoting and developing their business or supporting the transition of client relationships where appropriate. Financial advisor compensation also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.

Share delivery obligations

Share delivery obligations related to employee share-based compensation awards were 178m shares as of 31 December 2022 (31 December 2021: 175m shares). Share delivery obligations are calculated on the basis of undistributed notional share awards, taking applicable performance conditions into account.

As of 31 December 2022, UBS held 119m treasury shares (31 December 2021: 149m) that were available to satisfy share delivery obligations.

b) Effect on the income statement

Effect on the income statement for the financial year and future periods

The table below provides information about compensation expenses related to total variable compensation that were recognized in the financial year ended 31 December 2022, as well as expenses that were deferred and will be recognized in the income statement for 2023 and later. The majority of expenses deferred to 2023 and later that are related to the 2022 performance year pertain to awards granted in February 2023. The total unamortized compensation expense for unvested share-based awards granted up to 31 December 2022 will be recognized in future periods over a weighted average period of 2.5 years.

Variable compensation

<i>USD m</i>	Expenses recognized in 2022			Expenses deferred to 2023 and later ¹		
	Related to the 2022 performance year	Related to prior performance years	Total	Related to the 2022 performance year	Related to prior performance years	Total
Non-deferred cash	2,276	(16)	2,260	0	0	0
Deferred compensation awards	364	581	945	605	754	1,359
<i>of which: Equity Ownership Plan</i>	202	235	437	310	250	560
<i>of which: Deferred Contingent Capital Plan</i>	129	219	349	245	408	654
<i>of which: Long-Term Incentive Plan</i>	11	32	43	30	42	71
<i>of which: Fund Ownership Plan</i>	21	95	116	20	54	74
Variable compensation – performance awards	2,640	566	3,205	605	754	1,359
Variable compensation – financial advisors²	3,799	709	4,508	1,290	2,652	3,942
<i>of which: non-deferred cash</i>	3,481	0	3,481	0	0	0
<i>of which: deferred share-based awards</i>	104	62	166	122	180	302
<i>of which: deferred cash-based awards</i>	185	215	400	588	636	1,224
<i>of which: compensation commitments with recruited financial advisors</i>	29	432	461	580	1,836	2,416
Variable compensation – other³	169	71	241	237	193	430
Total variable compensation	6,608	1,346	7,954⁴	2,131	3,599	5,731

1 Estimate as of 31 December 2022. Actual amounts to be expensed in future periods may vary; e.g., due to forfeiture of awards.

- 2 Financial advisor compensation consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.
- 3 Consists of replacement payments, forfeiture credits, severance payments, retention plan payments and interest expense related to the Deferred Contingent Capital Plan.
- 4 Includes USD 703m in expenses related to share-based compensation (performance awards: USD 480m; other variable compensation: USD 56m; financial advisor compensation: USD 166m). A further USD 88m in expenses related to share-based compensation was recognized within other expense categories included in Note 6 (salaries: USD 4m, related to role-based allowances; social security: USD 61m; other personnel expenses: USD 23m related to the Equity Plus Plan). Total personnel expense related to share-based equity-settled compensation excluding social security was USD 716m.

Note 27 Employee benefits: variable compensation (continued)

Variable compensation (continued)

<i>USD m</i>	Expenses recognized in 2021			Expenses deferred to 2022 and later ¹		
	Related to the 2021 performance year	Related to prior performance years	Total	Related to the 2021 performance year	Related to prior performance years	Total
Non-deferred cash	2,383	(10)	2,373	0	0	0
Deferred compensation awards	405	412	817	797	624	1,421
<i>of which: Equity Ownership Plan</i>	183	180	363	393	184	577
<i>of which: Deferred Contingent Capital Plan</i>	140	158	297	299	329	628
<i>of which: Long-Term Incentive Plan</i>	54	19	73	50	33	83
<i>of which: Fund Ownership Plan</i>	29	56	84	56	78	133
Variable compensation – performance awards	2,788	402	3,190	797	624	1,421
Variable compensation – financial advisors²	4,175	685	4,860	1,097	2,323	3,419
<i>of which: non-deferred cash</i>	3,858	(6)	3,853	0	0	0
<i>of which: deferred share-based awards</i>	106	51	157	123	146	269
<i>of which: deferred cash-based awards</i>	170	202	372	311	495	806
<i>of which: compensation commitments with recruited financial advisors</i>	41	438	479	662	1,682	2,344
Variable compensation – other³	191	38	229	215	182	397
Total variable compensation	7,155	1,125	8,280⁴	2,109	3,129	5,238

- 1 Estimate as of 31 December 2021. Actual amounts expensed may vary; e.g., due to forfeiture of awards.
- 2 Financial advisor compensation consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.
- 3 Consists of replacement payments, forfeiture credits, severance payments, retention plan payments and interest expense related to the Deferred Contingent Capital Plan.
- 4 Includes USD 651m in expenses related to share-based compensation (performance awards: USD 435m; other variable compensation: USD 59m; financial advisor compensation: USD 157m). A further USD 85m in expenses related to share-based compensation was recognized within other expense categories included in Note 6 (salaries: USD 5m related to role-based allowances; social security: USD 64m; other personnel expenses: USD 16m related to the Equity Plus Plan). Total personnel expense related to share-based equity-settled compensation excluding social security was USD 641m.

Variable compensation (continued)

<i>USD m</i>	Expenses recognized in 2020			Expenses deferred to 2021 and later ¹		
	Related to the 2020 performance year	Related to prior performance years	Total	Related to the 2020 performance year	Related to prior performance years	Total
Non-deferred cash	2,167	(26)	2,141	0	0	0
Deferred compensation awards	341	727	1,068	756	288	1,044
<i>of which: Equity Ownership Plan</i>	137	327	463	306	69	376
<i>of which: Deferred Contingent Capital Plan</i>	112	351	463	280	196	476
<i>of which: Long-Term Incentive Plan</i>	42	11	54	50	10	61
<i>of which: Fund Ownership Plan</i>	49	39	88	120	12	132
Variable compensation – performance awards	2,508	701	3,209	756	288	1,044
Variable compensation – financial advisors²	3,378	713	4,091	822	2,284	3,106
<i>of which: non-deferred cash</i>	3,154	0	3,154	0	0	0
<i>of which: deferred share-based awards</i>	69	50	119	79	135	214
<i>of which: deferred cash-based awards</i>	133	183	316	271	467	738
<i>of which: compensation commitments with recruited financial advisors</i>	22	480	502	473	1,682	2,155
Variable compensation – other³	126	94	220	181	192	374
Total variable compensation	6,012	1,508	7,520⁴	1,760	2,764	4,524

- 1 Estimate as of 31 December 2020. Actual amounts expensed may vary; e.g., due to forfeiture of awards.
- 2 Financial advisor compensation consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.
- 3 Consists of replacement payments, forfeiture credits, severance payments, retention plan payments and interest expense related to the Deferred Contingent Capital Plan.

- 4 Includes USD 686m in expenses related to share-based compensation (performance awards: USD 517m; other variable compensation: USD 50m; financial advisor compensation: USD 119m). A further USD 100m in expenses related to share-based compensation was recognized within other expense categories included in Note 6 (salaries: USD 4m related to role-based allowances; social security: USD 54m; other personnel expenses: USD 42m related to the Equity Plus Plan). Total personnel expense related to share-based equity-settled compensation excluding social security was USD 691m.

Note 27 Employee benefits: variable compensation (continued)

c) Outstanding share-based compensation awards

Share and performance share awards

Movements in outstanding share-based awards to employees during 2022 and 2021 are provided in the table below.

Movements in outstanding share-based compensation awards

	Number of shares 2022	Weighted average grant date fair value (USD)	Number of shares 2021	Weighted average grant date fair value (USD)
Outstanding, at the beginning of the year	180,578,561	13	174,900,395	12
Awarded during the year	62,203,770	18	68,721,549	15
Distributed during the year	(54,639,882)	12	(52,137,287)	13
Forfeited during the year	(6,235,249)	15	(10,906,096)	13
Outstanding, at the end of the year	181,907,200	15	180,578,561	13
<i>of which: shares vested for accounting purposes</i>	<i>102,364,973</i>		<i>107,828,979</i>	

The total carrying amount of the liability related to cash-settled share-based awards as of 31 December 2022 and 31 December 2021 was USD 43m and USD 37m, respectively.

d) Valuation

UBS share awards

UBS measures compensation expense based on the average market price of UBS shares on the grant date as quoted on the SIX Swiss Exchange, taking into consideration post-vesting sale and hedge restrictions, non-vesting conditions and market conditions, where applicable. The fair value of the share awards subject to post-vesting sale and hedge restrictions is discounted on the basis of the duration of the post-vesting restriction and is referenced to the cost of purchasing an at-the-money European put option for the term of the transfer restriction. The grant date fair value of notional shares without dividend entitlements also includes a deduction for the present value of future expected dividends to be paid between the grant date and distribution.

Note 28 Interests in subsidiaries and other entities

a) Interests in subsidiaries

UBS defines its significant subsidiaries as those entities that, either individually or in aggregate, contribute significantly to the Group's financial position or results of operations, based on a number of criteria, including the subsidiaries' equity and contribution to the Group's total assets and profit or loss before tax, in accordance with the requirements set by IFRS 12, Swiss regulations and the rules of the US Securities and Exchange Commission (the SEC).

Individually significant subsidiaries

The two tables below list the Group's individually significant subsidiaries as of 31 December 2022. Unless otherwise stated, the subsidiaries listed below have share capital consisting solely of ordinary shares held entirely by the Group and the proportion of ownership interest held is equal to the voting rights held by the Group.

The country where the respective registered office is located is also the principal place of business. UBS AG operates through a global branch network and a significant proportion of its business activity is conducted outside Switzerland, including in the UK, the US, Singapore, the Hong Kong SAR and other countries. UBS Europe SE has branches and offices in a number of EU Member States, including Germany, Italy, Luxembourg and Spain. Share capital is provided in the currency of the legally registered office.

Note 28 Interests in subsidiaries and other entities (continued)

Individually significant subsidiaries of UBS Group AG as of 31 December 2022

Company	Registered office	Share capital in million	Equity interest accumulated in %
UBS AG	Zurich and Basel, Switzerland	CHF 385.8	100.0
UBS Business Solutions AG ¹	Zurich, Switzerland	CHF 1.0	100.0

1 UBS Business Solutions AG holds subsidiaries in China, India, Israel and Poland.

Individually significant subsidiaries of UBS AG as of 31 December 2022¹

Company	Registered office	Primary business	Share capital in million	Equity interest accumulated in %
UBS Americas Holding LLC	Wilmington, Delaware, USA	Group Functions	USD 5,150.0 ²	100.0
UBS Americas Inc.	Wilmington, Delaware, USA	Group Functions	USD 0.0	100.0
UBS Asset Management AG	Zurich, Switzerland	Asset Management	CHF 43.2	100.0
UBS Bank USA	Salt Lake City, Utah, USA	Global Wealth Management	USD 0.0	100.0
UBS Europe SE	Frankfurt, Germany	Global Wealth Management	EUR 446.0	100.0
UBS Financial Services Inc.	Wilmington, Delaware, USA	Global Wealth Management	USD 0.0	100.0
UBS Securities LLC	Wilmington, Delaware, USA	Investment Bank	USD 1,283.1 ³	100.0
UBS Switzerland AG	Zurich, Switzerland	Personal & Corporate Banking	CHF 10.0	100.0

1 Includes direct and indirect subsidiaries of UBS AG.

2 Consists of common share capital of USD 1,000 and non-voting preferred share capital of USD 5,150,000,000.

3 Consists of common share capital of USD 100,000 and non-voting preferred share capital of USD 1,283,000,000.

Other subsidiaries

The table below lists other direct and indirect subsidiaries of UBS AG that are not individually significant but contribute to the Group's total assets and aggregated profit before tax thresholds and are thus disclosed in accordance with requirements set by the SEC.

Other subsidiaries of UBS AG as of 31 December 2022

Company	Registered office	Primary business	Share capital in million	Equity interest accumulated in %
UBS Asset Management (Americas) Inc.	Wilmington, Delaware, USA	Asset Management	USD 0.0	100.0
UBS Asset Management (Hong Kong) Limited	Hong Kong SAR, China	Asset Management	HKD 153.8	100.0
UBS Asset Management Life Ltd	London, United Kingdom	Asset Management	GBP 15.0	100.0
UBS Asset Management Switzerland AG	Zurich, Switzerland	Asset Management	CHF 0.5	100.0
UBS Business Solutions US LLC	Wilmington, Delaware, USA	Group Functions	USD 0.0	100.0
UBS Credit Corp.	Wilmington, Delaware, USA	Global Wealth Management	USD 0.0	100.0
UBS (France) S.A.	Paris, France	Global Wealth Management	EUR 197.0	100.0
UBS Fund Management (Luxembourg) S.A.	Luxembourg, Luxembourg	Asset Management	EUR 13.0	100.0
UBS Fund Management (Switzerland) AG	Basel, Switzerland	Asset Management	CHF 1.0	100.0
UBS (Monaco) S.A.	Monte Carlo, Monaco	Global Wealth Management	EUR 49.2	100.0
UBS O'Connor LLC	Wilmington, Delaware, USA	Asset Management	USD 1.0	100.0
UBS Realty Investors LLC	Boston, Massachusetts, USA	Asset Management	USD 9.0	100.0
UBS Securities Australia Ltd	Sydney, Australia	Investment Bank	AUD 0.3 ¹	100.0
UBS Securities Hong Kong Limited	Hong Kong SAR, China	Investment Bank	HKD 3,354.2	100.0
UBS Securities Japan Co., Ltd.	Tokyo, Japan	Investment Bank	JPY 34,708.7	100.0
UBS SuMi TRUST Wealth Management Co., Ltd.	Tokyo, Japan	Global Wealth Management	JPY 5,165.0	51.0

1 Includes a nominal amount relating to redeemable preference shares.

Consolidated structured entities

Consolidated structured entities (SEs) include certain investment funds, securitization vehicles and client investment vehicles. UBS has no individually significant subsidiaries that are SEs.

In 2022 and 2021, the Group did not enter into any contractual obligation that could require the Group to provide financial support to consolidated SEs. In addition, the Group did not provide support, financial or otherwise, to a consolidated SE when the Group was not contractually obligated to do so, nor does the Group have any intention to do so in the future. Furthermore, the Group did not provide support, financial or otherwise, to a previously unconsolidated SE that resulted in the Group controlling the SE during the reporting period.

Note 28 Interests in subsidiaries and other entities (continued)

b) Interests in associates and joint ventures

As of 31 December 2022 and 2021, no associate or joint venture was individually material to the Group. Also, there were no significant restrictions on the ability of associates or joint ventures to transfer funds to UBS Group AG or its subsidiaries as cash dividends or to repay loans or advances made. There were no quoted market prices for any associates or joint ventures of the Group.

In 2022, UBS reclassified its minority investment (49%) in its Japanese real estate joint venture, Mitsubishi Corp.-UBS Realty Inc., of USD 44m to *Properties and other non-current assets held for sale* and sold the shareholding. The sale resulted in a pre-tax gain of USD 848m in 2022, which was recognized in *Other income*. UBS's asset management, wealth management and investment banking businesses operating in Japan were not affected by the sale.

Investments in associates and joint ventures

<i>USD m</i>	2022	2021
Carrying amount at the beginning of the year	1,243	1,557
Additions	3	1
Reclassifications ¹	(44)	(386)
Share of comprehensive income	(41)	150
<i>of which: share of net profit²</i>	32	105
<i>of which: share of other comprehensive income³</i>	(73)	45
Share of changes in retained earnings	0	1
Dividends received	(31)	(39)
Foreign currency translation	(30)	(39)
Carrying amount at the end of the year	1,101	1,243
<i>of which: associates</i>	1,098	1,200
<i>of which: SIX Group AG, Zurich⁴</i>	954	1,043
<i>of which: other associates</i>	144	157
<i>of which: joint ventures</i>	3	43
<i>of which: Mitsubishi Corp.-UBS Realty Inc., Tokyo¹</i>		40
<i>of which: other joint ventures</i>	3	3

- 1 In 2022, UBS reclassified its minority investment (49%) in Mitsubishi Corp.-UBS Realty Inc. of USD 44m to Properties and other non-current assets held for sale and sold the investment in the same year. In 2021, UBS reclassified its minority investment (48.8%) in Clearstream Fund Centre AG of USD 386m to Properties and other non-current assets held for sale and sold the investment in the same year.
- 2 For 2022, consists of USD 27m from associates and USD 5m from joint ventures (for 2021, consists of USD 79m from associates and USD 26m from joint ventures).
- 3 For 2022, consists of negative USD 73m from associates (for 2021, consists of USD 44m from associates and USD 1m from joint ventures).
- 4 In 2022, UBS AG's equity interest amounted to 17.31%. UBS AG is represented on the Board of Directors.

c) Unconsolidated structured entities

UBS is considered to sponsor another entity if, in addition to ongoing involvement with that entity, it had a key role in establishing that entity or in bringing together relevant counterparties for a transaction facilitated by that entity. During 2022, the Group sponsored the creation of various SEs and interacted with a number of non-sponsored SEs, including securitization vehicles, client vehicles and certain investment funds, that UBS did not consolidate as of 31 December 2022 because it did not control them.

Interests in unconsolidated structured entities

The table below presents the Group's interests in and maximum exposure to loss from unconsolidated SEs, as well as the total assets held by the SEs in which UBS had an interest as of year-end, except for investment funds sponsored by third parties, for which the carrying amount of UBS's interest as of year-end has been disclosed.

Sponsored unconsolidated structured entities in which UBS did not have an interest at year-end

During 2022 and 2021, the Group did not earn material income from sponsored unconsolidated SEs in which UBS did not have an interest at year-end.

During 2022 and 2021, UBS and third parties did not transfer any assets into sponsored securitization vehicles created in the year. UBS and third parties transferred assets, alongside deposits and debt issuances (which are assets from the perspective of the vehicle), of USD 1bn and USD 3bn, respectively, into sponsored client vehicles created in 2022 (2021: USD 1bn and USD 2bn, respectively). For sponsored investment funds, transfers arose during the period as investors invested and redeemed positions, thereby changing the overall size of the funds, which, when combined with market movements,

resulted in a total closing net asset value of USD 38bn (31 December 2021: USD 46bn).

Interests in securitization vehicles

As of 31 December 2022 and 31 December 2021, the Group held interests, both retained and acquired, in various securitization vehicles that relate to financing, underwriting, secondary market and derivative trading activities.

The numbers outlined in the table above may differ from the securitization positions presented in the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for the following reasons: (i) exclusion of synthetic securitizations transacted with entities that are not SEs and transactions in which the Group did not have an interest because it did not absorb any risk; (ii) a different measurement basis in certain cases (e.g., IFRS carrying amount within the previous table compared with net exposure amount at default for Pillar 3 disclosures); and (iii) different classification of vehicles viewed as sponsored by the Group versus sponsored by third parties.

- **Refer to the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more information**

Note 28 Interests in subsidiaries and other entities (continued)

Interests in client vehicles

Client vehicles are established predominantly for clients to gain exposure to specific assets or risk exposures. Such vehicles may enter into derivative agreements, with UBS or a third party, to align the cash flows of the entity with the investor's intended investment objective, or to introduce other desired risk exposures.

As of 31 December 2022 and 31 December 2021, the Group retained interests in client vehicles sponsored by UBS and third parties that relate to financing, secondary market and derivative trading activities, and to hedge structured product offerings.

Interests in investment funds

Investment funds have a collective investment objective, and are either passively managed, so that any decision-making does not have a substantive effect on variability, or are actively managed and investors or their governing bodies do not have substantive voting or similar rights.

The Group holds interests in a number of investment funds, primarily resulting from seed investments or in order to hedge structured product offerings. In addition to the interests disclosed in the table above, the Group manages the assets of various pooled investment funds and receives fees based, in whole or in part, on the net asset value of the fund and / or the performance of the fund. The specific fee structure is determined based on various market factors and considers the fund's nature and the jurisdiction of incorporation, as well as fee schedules negotiated with clients. These fee contracts represent an interest in the fund, as they align the Group's exposure with investors, providing a variable return based on the performance of the entity. Depending on the structure of the fund, these fees may be collected directly from the fund's assets and / or from the investors. Any amounts due are collected on a regular basis and are generally backed by the fund's assets. Therefore, interest in such funds is not represented by the on-balance sheet fee receivable but rather by the future exposure to variable fees. The total assets of such funds were USD 292bn and USD 370bn as of 31 December 2022 and 31 December 2021, respectively, and have been excluded from the table above. The Group did not have any material exposure to loss from these interests as of 31 December 2022 or as of 31 December 2021.

Note 29 Changes in organization and acquisitions and disposals of subsidiaries and businesses

Disposals of subsidiaries and businesses

Sale of UBS Swiss Financial Advisers AG

In the third quarter of 2022, UBS completed the sale of its wholly owned subsidiary UBS Swiss Financial Advisers AG (SFA) to Vontobel. UBS continues to refer US clients that want to have discretionary portfolio management or investment advisory services booked in Switzerland to Vontobel SFA. Upon completion of the sale, UBS recorded a pre-tax gain of USD 86m in 2022, which was recognized in *Other income*.

Prior to completion of the sale, the assets and liabilities that were subject to the transaction were presented as a disposal group held for sale within *Other non-financial assets* and *Other non-financial liabilities* (31 December 2021: USD 446m and USD 475m, respectively).

Sale of wealth management business in Spain

UBS completed the sale of its domestic wealth management business in Spain to Singular Bank in the third quarter of 2022. The sale included the transition of employees, client relationships, products and services of the wealth management business of UBS in Spain and resulted in a pre-tax gain of USD 133m in 2022, which was recognized in *Other income*.

Prior to completion of the sale, the assets and liabilities that were subject to the transaction were presented as a disposal group held for sale within *Other non-financial assets* and *Other non-financial liabilities* (31 December 2021: USD 647m and USD 823m, respectively).

Sale of US alternative investments administration business

In the fourth quarter of 2022, UBS sold its US alternative investments administration business and recorded a pre-tax gain of USD 41m gain in *Other income*.

Sale of investments in associates and joint ventures

UBS sold its minority investment (49%) in its Japanese real estate joint venture, Mitsubishi Corp.-UBS Realty Inc., in 2022.

- Refer to Note 28b for more information

Acquisitions of subsidiaries and businesses

Wealthfront

In August 2022, UBS and Wealthfront mutually agreed to terminate their merger agreement, under which Wealthfront was to be acquired by UBS Americas Inc. In the third quarter of 2022, UBS purchased a USD 69.7m note convertible into Wealthfront shares.

Note 30 Related parties

UBS defines related parties as associates (entities that are significantly influenced by UBS), joint ventures (entities in which UBS shares control with another party), post-employment benefit plans for UBS employees, key management personnel, close family members of key management personnel and entities that are, directly or indirectly, controlled or jointly controlled by key management personnel or their close family members. Key management personnel is defined as members of the Board of Directors (the BoD) and Group Executive Board (the GEB).

a) Remuneration of key management personnel

The Vice Chairman of the BoD has a specific management employment contract and receives pension benefits upon retirement. Total remuneration of the Chairman and the Vice Chairman of the BoD and all GEB members is included in the table below.

Remuneration of key management personnel

<i>USD m, except where indicated</i>	31.12.22	31.12.21	31.12.20
Base salaries and other cash payments ¹	27	31	33
Incentive awards – cash ²	17	17	18
Annual incentive award under DCCP	25	26	27
Employer's contributions to retirement benefit plans	2	3	3
Benefits in kind, fringe benefits (at market value)	1	1	1
Share-based compensation ³	45	45	47
Total	118	124	129
Total (CHF m)⁴	114	113	121

1 May include role-based allowances in line with market practice and regulatory requirements.

2 The cash portion may also include blocked shares in line with regulatory requirements.

3 Compensation expense is based on the share price on grant date taking into account performance conditions. Refer to Note 27 for more information. For GEB members, share-based compensation for 2022, 2021 and 2020 was entirely composed of LTIP awards. For the Chairman of the BoD the share-based compensation for 2022, 2021 and 2020 was entirely composed of UBS shares.

4 Swiss franc amounts disclosed represent the respective US dollar amounts translated at the applicable performance award currency exchange rates (2022: USD / CHF 0.96; 2021: USD / CHF 0.92; 2020: USD / CHF 0.94).

The independent members of the BoD, including the Chairman, do not have employment or service contracts with UBS, and thus are not entitled to benefits upon termination of their service on the BoD. Payments to these individuals for their services as independent members of the BoD amounted to USD 11.1m (CHF 10.7m) in 2022, USD 7.5m (CHF 6.9m) in 2021 and USD 7.0m (CHF 6.6m) in 2020.

b) Equity holdings of key management personnel

Equity holdings of key management personnel¹

	31.12.22	31.12.21
Number of UBS Group AG shares held by members of the BoD, GEB and parties closely linked to them ²	3,009,686	4,597,006

1 No options were held in 2022 and 2021 by non-independent members of the BoD and any GEB member or any of its related parties.

2 Excludes shares granted under variable compensation plans with forfeiture provisions.

Of the share totals above, no shares were held by close family members of key management personnel on 31 December 2022 and 31 December 2021. No shares were held by entities that are directly or indirectly controlled or jointly controlled by key management personnel or their close family members on 31 December 2022 and 31 December 2021. As of 31 December 2022, no member of the BoD or GEB was the beneficial owner of more than 1% of the shares in UBS Group AG.

c) Loans, advances and mortgages to key management personnel

The non-independent members of the BoD and GEB members are granted loans, fixed advances and mortgages in the ordinary course of business on substantially the same terms and conditions that are available to other employees, including interest rates and collateral, and neither involve more than the normal risk of collectability nor contain any other unfavorable features for the firm. Independent BoD members are granted loans and mortgages in the ordinary course of business at general market conditions.

Movements in the loan, advances and mortgage balances are as follows.

Note 30 Related parties (continued)

Loans, advances and mortgages to key management personnel¹

<i>USD m, except where indicated</i>	2022	2021
Balance at the beginning of the year	34	38
Additions	8	11
Reductions	(9)	(15)
Balance at the end of the year²	33	34
Balance at the end of the year (CHF m)^{2, 3}	31	31

1 All loans are secured loans.

2 There were no unused uncommitted credit facilities as of 31 December 2022 and 31 December 2021.

3 Swiss franc amounts disclosed represent the respective US dollar amounts translated at the relevant year-end closing exchange rate.

d) Other related-party transactions with entities controlled by key management personnel

In 2022 and 2021, UBS did not enter into transactions with entities that are directly or indirectly controlled or jointly controlled by UBS's key management personnel or their close family members and as of 31 December 2022, 31 December 2021 and 31 December 2020, there were no outstanding balances related to such transactions. Furthermore, in 2022 and 2021, entities controlled by key management personnel did not sell any goods or provide any services to UBS, and therefore did not receive any fees from UBS. UBS also did not provide services to such entities in 2022 and 2021, and therefore also received no fees.

e) Transactions with associates and joint ventures

Loans to and outstanding receivables from associates and joint ventures

<i>USD m</i>	2022	2021
Carrying amount at the beginning of the year	251	630
Additions	402	133
Reductions	(438)	(497)
Foreign currency translation	1	(14)
Carrying amount at the end of the year	217	251
<i>of which: unsecured loans and receivables</i>	209	243

Other transactions with associates and joint ventures

<i>USD m</i>	As of or for the year ended	
	31.12.22	31.12.21
Payments to associates and joint ventures for goods and services received	138	157
Fees received for services provided to associates and joint ventures	4	104
Liabilities to associates and joint ventures	90	127
Commitments and contingent liabilities to associates and joint ventures	7	7

- Refer to Note 28 for an overview of investments in associates and joint ventures

Note 31 Invested assets and net new money

The following disclosures provide a breakdown of UBS's invested assets and a presentation of their development, including net new money, as required by the Swiss Financial Market Supervisory Authority (FINMA).

Invested assets

Invested assets consist of all client assets managed by or deposited with UBS for investment purposes. Invested assets include managed fund assets, managed institutional assets, discretionary and advisory wealth management portfolios, fiduciary deposits, time deposits, savings accounts, and wealth management securities or brokerage accounts. All assets held for purely transactional purposes and custody-only assets, including corporate client assets held for cash management and transactional purposes, are excluded from invested assets, as the Group only administers the assets and does not offer advice on how they should be invested. Also excluded are non-bankable assets (e.g., art collections) and deposits from third-party banks for funding or trading purposes.

Note 31 Invested assets and net new money (continued)

Discretionary assets are defined as client assets that UBS decides how to invest. Other invested assets are those where the client ultimately decides how the assets are invested. When a single product is created in one business division and sold in another, it is counted in both the business division managing the investment and the one distributing it. This results in double counting within UBS's total invested assets and net new money, as both business divisions are independently providing a service to their respective clients, and both add value and generate revenue.

Net new money

Net new money in a reporting period is the amount of invested assets entrusted to UBS by new and existing clients, less those withdrawn by existing clients and clients who terminated relationships with UBS.

Net new money is calculated using the direct method, under which inflows and outflows to / from invested assets are determined at the client level, based on transactions. Interest and dividend income from invested assets are not counted as net new money inflows. Market and currency movements, as well as fees, commissions and interest on loans charged, are excluded from net new money, as are effects resulting from any acquisition or divestment of a UBS subsidiary or business. Reclassifications between invested assets and custody-only assets as a result of a change in service level delivered are generally treated as net new money flows. However, where the change in service level directly results from an externally imposed regulation or a strategic decision by UBS to exit a market or specific service offering, the one-time net effect is reported as *Other effects*.

The Investment Bank does not track invested assets and net new money. However, when a client is transferred from the Investment Bank to another business division, this may produce net new money even though the client's assets were already with UBS.

Invested assets and net new money

<i>USD bn</i>	As of or for the year ended	
	31.12.22	31.12.21
Fund assets managed by UBS	390	419
Discretionary assets	1,440	1,705
Other invested assets	2,127	2,472
Total invested assets¹	3,957	4,596
<i>of which: double counts</i>	<i>340</i>	<i>356</i>
Net new money¹	68	159

1 Includes double counts.

Development of invested assets

<i>USD bn</i>	2022	2021
Total invested assets at the beginning of the year ¹	4,596	4,187
Net new money	68	159
Market movements ²	(595)	339
Foreign currency translation	(72)	(65)
Other effects	(40)	(24)
<i>of which: acquisitions / (divestments)</i>	<i>(19)</i>	<i>(5)</i>
Total invested assets at the end of the year¹	3,957	4,596

1 Includes double counts.

2 Includes interest and dividend income.

Note 32 Currency translation rates

The following table shows the rates of the main currencies used to translate the financial information of UBS's operations with a functional currency other than the US dollar into US dollars.

	Closing exchange rate		Average rate ¹		
	As of		For the year ended		
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.20
1 CHF	1.08	1.10	1.05	1.09	1.07
1 EUR	1.07	1.14	1.05	1.18	1.15
1 GBP	1.21	1.35	1.23	1.37	1.29
100 JPY	0.76	0.87	0.76	0.91	0.94

- 1 Monthly income statement items of operations with a functional currency other than the US dollar are translated into US dollars using month-end rates. Disclosed average rates for a year represent an average of twelve month-end rates, weighted according to the income and expense volumes of all operations of the Group with the same functional currency for each month. Weighted average rates for individual business divisions may deviate from the weighted average rates for the Group.

Note 33 Main differences between IFRS and Swiss GAAP

The consolidated financial statements of UBS Group AG are prepared in accordance with International Financial Reporting Standards (IFRS). The Swiss Financial Market Supervisory Authority (FINMA) requires financial groups presenting financial statements under IFRS to provide a narrative explanation of the main differences between IFRS and Swiss generally accepted accounting principles (GAAP) (the FINMA Accounting Ordinance, FINMA Circular 2020/1 “Accounting – banks” and the Banking Ordinance (the BO)). Included in this Note are the significant differences in the recognition and measurement between IFRS and the provisions of the BO and the guidelines of FINMA governing true and fair view financial statement reporting pursuant to Art. 25 to Art. 42 of the BO.

1. Consolidation

Under IFRS, all entities that are controlled by the holding entity are consolidated. Under Swiss GAAP controlled entities deemed immaterial to a group or those held only temporarily are exempt from consolidation, but instead are recorded as participations accounted for under the equity method of accounting or as financial investments measured at the lower of cost or market value.

2. Classification and measurement of financial assets

Under IFRS, debt instruments are measured at amortized cost, fair value through other comprehensive income (FVOCI) or fair value through profit or loss (FVTPL), depending on the nature of the business model within which the particular asset is held and the characteristics of the contractual cash flows of the asset. Equity instruments are accounted for at FVTPL by UBS. Under Swiss GAAP, trading assets and derivatives are measured at FVTPL, in line with IFRS. However, non-trading debt instruments are generally measured at amortized cost, even when the assets are managed on a fair value basis. In addition, the measurement of financial assets in the form of securities depends on the nature of the asset: debt instruments not held to maturity, i.e., instruments available for sale, and equity instruments with no permanent holding intent, are classified as *Financial investments* and measured at the lower of (amortized) cost or market value. Market value adjustments up to the original cost amount and realized gains or losses upon disposal of the investment are recorded in the income statement as *Other income from ordinary activities*. Equity instruments with a permanent holding intent are classified as participations in *Non-consolidated investments in subsidiaries and other participations* and are measured at cost less impairment. Impairment losses are recorded in the income statement as *Impairment of investments in non-consolidated subsidiaries and other participations*. Reversals of impairments up to the original cost amount and realized gains or losses upon disposal of the investment are recorded as *Extraordinary income / Extraordinary expenses*.

3. Fair value option applied to financial liabilities

Under IFRS, UBS applies the fair value option to certain financial liabilities not held for trading. Instruments for which the fair value option is applied are accounted for at FVTPL. The amount of change in the fair value attributable to changes in UBS’s own credit is presented in *Other comprehensive income* directly within *Retained earnings*. The fair value option is applied primarily to issued structured debt instruments, certain non-structured debt instruments, certain payables under repurchase agreements and cash collateral on securities lending agreements, amounts due under unit-linked investment contracts, and brokerage payables.

Under Swiss GAAP, the fair value option can only be applied to structured debt instruments consisting of a debt host contract and one or more embedded derivatives that do not relate to own equity. Furthermore, unrealized changes in fair value attributable to changes in UBS’s own credit are not recognized, whereas realized own credit is recognized in *Net trading income*.

4. Allowances and provisions for credit losses

Swiss GAAP permit use of IFRS for accounting for allowances and provisions for credit losses based on an expected credit loss (ECL) model. UBS has chosen to apply the IFRS 9 ECL approach to those exposures that are in the ECL scope of both frameworks, IFRS and Swiss GAAP.

For the small residual exposures within the scope of Swiss GAAP ECL requirements, which are not subject to ECL under IFRS due to classification differences, UBS applies alternative approaches.

- For exposures for which Pillar 1 internal ratings-based models are applied to measure credit risk, ECL is determined by the regulatory expected loss (EL), with an add-on for scaling up to the residual maturity of exposures maturing beyond the next 12 months, as appropriate. For detailed information on regulatory EL, refer to the “Risk management and control” section of this report.
- For exposures for which the Pillar 1 standardized approach is used to measure credit risk, ECL is determined using a portfolio approach that derives a conservative probability of default (PD) and a conservative loss given default (LGD) for the entire portfolio.

5. Hedge accounting

Under IFRS, when cash flow hedge accounting is applied, the fair value gain or loss on the effective portion of a derivative designated as a cash flow hedge is recognized initially in equity and reclassified to the income statement when certain conditions are met. When fair value hedge accounting is applied, the fair value change of the hedged item attributable to the hedged risk is reflected in the measurement of the hedged item and is recognized in the income statement along with the change in the fair value of the hedging derivative. Under Swiss GAAP, the effective portion of the fair value change of a derivative instrument designated as a cash flow or as a fair value hedge is deferred on the balance sheet as *Other assets* or *Other liabilities*. The carrying amount of the hedged item designated in fair value hedges is not adjusted for fair value changes attributable to the hedged risk.

6. Goodwill and intangible assets

Under IFRS, goodwill acquired in a business combination is not amortized but tested annually for impairment. Intangible assets with an indefinite useful life are also not amortized but tested annually for impairment. Under Swiss GAAP, goodwill and intangible assets with indefinite useful lives are amortized over a period not exceeding five years, unless a longer useful life, which may not exceed 10 years, can be justified. In addition, these assets are tested annually for impairment.

7. Post-employment benefit plans

Swiss GAAP permit the use of IFRS or Swiss accounting standards for post-employment benefit plans, with the election made on a plan-by-plan basis.

UBS has elected to apply IFRS (IAS 19) for the non-Swiss defined benefit plans in the UBS AG standalone financial statements and Swiss GAAP (FER 16) for the Swiss pension plan in the UBS AG and the UBS Switzerland AG standalone financial statements. The requirements of Swiss GAAP are better aligned with the specific nature of Swiss pension plans, which are hybrid in that they combine elements of defined contribution and defined benefit plans, but are treated as defined benefit plans under IFRS. Key differences between Swiss GAAP and IFRS include the treatment of dynamic elements, such as future salary increases and future interest credits on retirement savings, which are not considered under the static method used in accordance with Swiss GAAP. Also, the discount rate used to determine the defined benefit obligation in accordance with IFRS is based on the yield of high-quality corporate bonds of the market in the respective pension plan country. The discount rate used in accordance with Swiss GAAP (i.e., the technical interest rate) is determined by the Pension Foundation Board based on the expected returns of the Board's investment strategy.

For defined benefit plans, IFRS require the full defined benefit obligation net of the plan assets to be recorded on the balance sheet subject to the asset ceiling rules, with changes resulting from remeasurements recognized directly in equity. However, for non-Swiss defined benefit plans for which IFRS accounting is elected, changes due to remeasurements are recognized in the income statement of UBS AG standalone under Swiss GAAP.

Swiss GAAP require employer contributions to the pension fund to be recognized as personnel expenses in the income statement. Swiss GAAP also require an assessment of whether, based on the pension fund's financial statements prepared in accordance with Swiss accounting standards (FER 26), an economic benefit to, or obligation of, the employer arises from the pension fund that is recognized in the balance sheet when conditions are met. Conditions for recording a pension asset or liability would be met if, for example, an employer contribution reserve is available or the employer is required to contribute to the reduction of a pension deficit (on an FER 26 basis).

8. Leasing

Under IFRS, a single lease accounting model applies that requires UBS to record a right-of-use (RoU) asset and a corresponding lease liability on the balance sheet when UBS is a lessee in a lease arrangement. The RoU asset and the lease liability are recognized when UBS acquires control of the physical use of the asset. The lease liability is measured based on the present value of the lease payments over the lease term, discounted using UBS's unsecured borrowing rate. The RoU asset is recorded at an amount equal to the lease liability but is adjusted for rent prepayments, initial direct costs, any costs to refurbish the leased asset and / or lease incentives received. The RoU asset is depreciated over the shorter of the lease term or the useful life of the underlying asset.

Under Swiss GAAP, leases that transfer substantially all the risks and rewards, but not necessarily legal title in the underlying assets, are classified as finance leases. All other leases are classified as operating leases. Whereas finance leases are recognized on the balance sheet and measured in line with IFRS, operating leases are not recognized on the balance sheet, with payments recognized as *General and administrative expenses* on a straight-line basis over the lease term, which commences with control of the physical use of the asset. Lease incentives are treated as a reduction of rental expense and recognized on a consistent basis over the lease term.

9. Netting of derivative assets and liabilities

Under IFRS, derivative assets, derivative liabilities and related cash collateral not settled to market are reported on a gross basis unless the restrictive IFRS netting requirements are met: (i) existence of master netting agreements and related collateral arrangements that are unconditional and legally enforceable, in both the normal course of business and the event of default, bankruptcy or insolvency of UBS and its counterparties; and (ii) UBS's intention to either settle on a net basis or to realize the asset and settle the liability simultaneously. Under Swiss GAAP, derivative assets, derivative liabilities and related cash collateral not settled to market are generally reported on a net basis, provided the master netting and the related collateral agreements are legally enforceable in the event of default, bankruptcy or insolvency of UBS's counterparties.

10. Negative interest

Under IFRS, negative interest income arising on a financial asset does not meet the definition of interest income and, therefore, negative interest on financial assets and negative interest on financial liabilities are presented within interest expense and interest income, respectively. Under Swiss GAAP, negative interest on financial assets is presented within interest income and negative interest on financial liabilities is presented within interest expense.

11. Extraordinary income and expense

Certain non-recurring and non-operating income and expense items, such as realized gains or losses from the disposal of participations, fixed and intangible assets, and reversals of impairments of participations and fixed assets, are classified as extraordinary items under Swiss GAAP. This distinction is not available under IFRS.

UBS AG consolidated financial information

This section contains a comparison of selected financial and capital information between UBS Group AG consolidated and UBS AG consolidated. Information for UBS AG consolidated does not differ materially from UBS Group AG on a consolidated basis.

Comparison between UBS Group AG consolidated and UBS AG consolidated

The accounting policies applied under International Financial Reporting Standards (IFRS) to both the UBS Group AG and the UBS AG consolidated financial statements are identical. However, there are certain scope and presentation differences as noted below:

- Assets, liabilities, revenues, operating expenses and tax expenses / (benefits) relating to UBS Group AG and its directly held subsidiaries, including UBS Business Solutions AG, are reflected in the consolidated financial statements of UBS Group AG but not of UBS AG. UBS AG's assets, liabilities, revenues and operating expenses related to transactions with UBS Group AG and its directly held subsidiaries, including UBS Business Solutions AG and other shared services subsidiaries, are not subject to elimination in the UBS AG consolidated financial statements, but are eliminated in the UBS Group AG consolidated financial statements.
- Differences in net profit between UBS Group AG consolidated and UBS AG consolidated mainly arise as UBS Business Solutions AG and other shared services subsidiaries of UBS Group AG charge other legal entities within the UBS AG consolidation scope for services provided, including a markup on costs incurred. In addition, and to a lesser extent, differences arise as a result of certain compensation-related matters, including pensions.
- The equity of UBS Group AG consolidated was USD 0.3bn higher than the equity of UBS AG consolidated as of 31 December 2022. This difference was mainly driven by higher dividends paid by UBS AG to UBS Group AG compared with the dividend distributions of UBS Group AG, as well as higher retained earnings in the UBS Group AG consolidated financial statements, largely related to the aforementioned markup charged by shared services subsidiaries of UBS Group AG to other legal entities in the UBS AG scope of consolidation. In addition, UBS Group AG is the grantor of the majority of the compensation plans of the Group and recognizes share premium for equity-settled awards granted. These effects were largely offset by treasury shares acquired as part of our share repurchase programs and those held to hedge share delivery obligations associated with Group compensation plans, as well as additional share premium recognized at the UBS AG consolidated level related to the establishment of UBS Group AG and UBS Business Solutions AG, a wholly owned subsidiary of UBS Group AG.
- The going concern capital of UBS Group AG consolidated was USD 3.6bn higher than the going concern capital of UBS AG consolidated as of 31 December 2022, reflecting higher common equity tier 1 (CET1) capital of USD 2.5bn and going concern loss-absorbing additional tier 1 (AT1) capital of USD 1.0bn.
- The CET1 capital of UBS Group AG consolidated was USD 2.5bn higher than that of UBS AG consolidated as of 31 December 2022, primarily due to lower UBS Group AG accruals for dividends to shareholders and USD 0.3bn higher UBS Group AG consolidated IFRS equity. The aforementioned factors were partly offset by compensation-related regulatory capital accruals at the UBS Group AG level.
- The going concern loss-absorbing AT1 capital of UBS Group AG consolidated was USD 1.0bn higher than that of UBS AG consolidated as of 31 December 2022, mainly reflecting Deferred Contingent Capital Plan awards granted at the Group level to eligible employees for the performance years 2017 to 2021, partly offset by four loss-absorbing AT1 capital instruments on-lent by UBS Group AG to UBS AG.

UBS AG consolidated key figures

<i>USD m, except where indicated</i>	As of or for the year ended		
	31.12.22	31.12.21	31.12.20
Results			
Total revenues	34,915	35,828	33,474
Credit loss expense / (release)	29	(148)	695
Operating expenses	25,927	27,012	25,081
Operating profit / (loss) before tax	8,960	8,964	7,699
Net profit / (loss) attributable to shareholders	7,084	7,032	6,196
Profitability and growth¹			
Return on equity (%)	12.6	12.3	10.9
Return on tangible equity (%)	14.2	13.9	12.4
Return on common equity tier 1 capital (%)	16.8	17.6	16.6
Return on leverage ratio denominator, gross (%) ²	3.4	3.4	3.4
Cost / income ratio (%)	74.3	75.4	74.9
Net profit growth (%)	0.7	13.5	56.3
Resources¹			
Total assets	1,105,436	1,116,145	1,125,327
Equity attributable to shareholders	56,598	58,102	57,754
Common equity tier 1 capital ³	42,929	41,594	38,181
Risk-weighted assets ³	317,823	299,005	286,743
Common equity tier 1 capital ratio (%) ³	13.5	13.9	13.3
Going concern capital ratio (%) ³	17.2	18.5	18.3
Total loss-absorbing capacity ratio (%) ³	32.0	33.3	34.2
Leverage ratio denominator ^{2,3}	1,029,561	1,067,679	1,036,771
Common equity tier 1 leverage ratio (%) ^{2,3}	4.17	3.90	3.68
Other			
Invested assets (USD bn) ⁴	3,957	4,596	4,187
Personnel (full-time equivalents)	47,628	47,067	47,546

- 1 Refer to the “Targets, aspirations and capital guidance” section of this report for more information about our performance measurement.
- 2 Leverage ratio denominators and leverage ratios for year 2020 do not reflect the effects of the temporary exemption that applied from 25 March 2020 until 1 January 2021 and was granted by FINMA in connection with COVID-19. Refer to the “Regulatory and legal developments” section of our Annual Report 2020 for more information.
- 3 Based on the Swiss systemically relevant bank framework as of 1 January 2020. Refer to the “Capital, liquidity and funding, and balance sheet” section of this report for more information.
- 4 Consists of invested assets for Global Wealth Management, Asset Management and Personal & Corporate Banking. Refer to “Note 31 Invested assets and net new money” in the “Consolidated financial statements” section of this report for more information.

Comparison between UBS Group AG consolidated and UBS AG consolidated

USD m, except where indicated	As of or for the year ended 31.12.22			As of or for the year ended 31.12.21		
	UBS Group AG consolidated	UBS AG consolidated	Difference (absolute)	UBS Group AG consolidated	UBS AG consolidated	Difference (absolute)
Income statement						
Total revenues	34,563	34,915	(353)	35,393	35,828	(434)
Credit loss expense / (release)	29	29	0	(148)	(148)	0
Operating expenses	24,930	25,927	(997)	26,058	27,012	(955)
Operating profit / (loss) before tax	9,604	8,960	644	9,484	8,964	520
<i>of which: Global Wealth Management</i>	4,977	4,894	83	4,783	4,706	77
<i>of which: Personal & Corporate Banking</i>	1,812	1,790	21	1,731	1,726	4
<i>of which: Asset Management</i>	1,397	1,396	1	1,030	1,023	7
<i>of which: Investment Bank</i>	1,897	1,839	58	2,630	2,592	38
<i>of which: Group Functions</i>	(480)	(960)	480	(689)	(1,083)	394
Net profit / (loss)	7,661	7,116	546	7,486	7,061	425
<i>of which: net profit / (loss) attributable to shareholders</i>	7,630	7,084	546	7,457	7,032	425
<i>of which: net profit / (loss) attributable to non-controlling interests</i>	32	32	0	29	29	0
Statement of comprehensive income						
Other comprehensive income	(4,494)	(4,396)	(98)	(2,367)	(2,235)	(131)
<i>of which: attributable to shareholders</i>	(4,481)	(4,383)	(98)	(2,351)	(2,220)	(131)
<i>of which: attributable to non-controlling interests</i>	(14)	(14)	0	(16)	(16)	0
Total comprehensive income	3,167	2,719	448	5,119	4,826	293
<i>of which: attributable to shareholders</i>	3,149	2,701	448	5,106	4,813	293
<i>of which: attributable to non-controlling interests</i>	18	18	0	13	13	0
Balance sheet						
Total assets	1,104,364	1,105,436	(1,072)	1,117,182	1,116,145	1,037
Total liabilities	1,047,146	1,048,496	(1,349)	1,056,180	1,057,702	(1,522)
Total equity	57,218	56,940	278	61,002	58,442	2,559
<i>of which: equity attributable to shareholders</i>	56,876	56,598	278	60,662	58,102	2,559
<i>of which: equity attributable to non-controlling interests</i>	342	342	0	340	340	0
Capital information						
Common equity tier 1 capital	45,457	42,929	2,528	45,281	41,594	3,687
Going concern capital	58,321	54,770	3,551	60,488	55,434	5,054
Risk-weighted assets	319,585	317,823	1,762	302,209	299,005	3,204
Common equity tier 1 capital ratio (%)	14.2	13.5	0.7	15.0	13.9	1.1
Going concern capital ratio (%)	18.2	17.2	1.0	20.0	18.5	1.5
Total loss-absorbing capacity ratio (%)	33.0	32.0	0.9	34.7	33.3	1.3
Leverage ratio denominator	1,028,461	1,029,561	(1,100)	1,068,862	1,067,679	1,183
Common equity tier 1 leverage ratio (%)	4.42	4.17	0.25	4.24	3.90	0.34

Management's report on internal control over financial reporting

Management's responsibility for internal control over financial reporting

The Board of Directors and management of UBS AG are responsible for establishing and maintaining adequate internal control over financial reporting. UBS AG's internal control over financial reporting is designed to provide reasonable assurance regarding the preparation and fair presentation of published financial statements in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

UBS AG's internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation and fair presentation of financial statements, and that receipts and expenditures of the company are being made only in accordance with authorizations of UBS AG management; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management's assessment of internal control over financial reporting as of 31 December 2022

UBS AG management has assessed the effectiveness of UBS AG's internal control over financial reporting as of 31 December 2022 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control – Integrated Framework (2013 Framework). Based on this assessment, management believes that, as of 31 December 2022, UBS AG's internal control over financial reporting was effective.

The effectiveness of UBS AG's internal control over financial reporting as of 31 December 2022 has been audited by Ernst & Young Ltd, UBS AG's independent registered public accounting firm, as stated in their *Report of the independent registered public accounting firm on internal control over financial reporting*, which expresses an unqualified opinion on the effectiveness of UBS AG's internal control over financial reporting as of 31 December 2022.



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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of UBS AG

Opinion on Internal Control over Financial Reporting

We have audited UBS AG and subsidiaries' internal control over financial reporting as of 31 December 2022, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, UBS AG and subsidiaries ("the Group") maintained, in all material respects, effective internal control over financial reporting as of 31 December 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Group as of 31 December 2022 and 2021, the related consolidated income statements, statements of comprehensive income, statements of changes in equity and statements of cash flows for each of the three years in the period ended 31 December 2022, and the related notes and our report dated 3 March 2023 expressed an unqualified opinion thereon.

Basis for Opinion

The Group's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Group's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Group in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Ernst & Young Ltd

Ernst & Young Ltd
Basel, 3 March 2023



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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of UBS AG

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of UBS AG and subsidiaries ("the Group") as of 31 December 2022 and 2021, the related consolidated income statements, statements of comprehensive income, statements of changes in equity and statements of cash flows for each of the three years in the period ended 31 December 2022, and the related notes to the consolidated financial statements, including the information identified as "audited" as described in Note 1 (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Group at 31 December 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended 31 December 2022, in conformity with the International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Group's internal control over financial reporting as of 31 December 2022, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated 3 March 2023 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Group's Board of Directors. Our responsibility is to express an opinion on the Group's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Group in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Valuation of complex or illiquid instruments at fair value

Description of the Matter At 31 December 2022, as explained in Notes 1 and 20 to the consolidated financial statements, the Group held financial assets and liabilities measured at fair value of USD 341,858 million and USD 333,382 million, including financial instruments that did not trade in active markets. These instruments are reported within the following accounts: financial assets and liabilities at fair value held for trading, derivative financial instruments, financial assets at fair value not held for trading, debt issued designated at fair value, and other financial liabilities designated at fair value. In determining the fair value of these financial instruments, the Group used valuation techniques, modelling assumptions, and estimates of unobservable market inputs which required significant management judgment.

Auditing management's judgments and assumptions used in the estimation of the fair value of these instruments was complex due to the highly judgmental nature of valuation techniques, key modelling assumptions and significant unobservable inputs. Auditing the valuation of complex or illiquid instruments at fair value included consideration of any incremental risks arising from the impact of current macroeconomic influences on valuation techniques and inputs, such as geopolitics, inflation, and the ongoing COVID-19 pandemic. The valuation techniques that required especially complex judgement were comprised of discounted cash flow and earnings-based valuation techniques. Highly judgmental modelling assumptions result from a range of different models or model calibrations used by market participants. Valuation inputs which were particularly complex and subjective included those with a limited degree of observability and the associated extrapolation, interpolation or calibration of curves using limited and proxy data points. Examples of such inputs included unobservable credit spreads and bond prices, volatility, and correlation.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design and tested the operating effectiveness of the controls over management's financial instruments valuation processes, including controls over market data inputs, model and methodology governance, and valuation adjustments.

We tested the valuation techniques, models and methodologies, and the inputs used in those models, as outlined above, by performing an independent revaluation of certain complex or illiquid financial assets and liabilities with the support of specialists. We used independent models and inputs, and compared inputs to available market data among other procedures. We also independently challenged key judgments in relation to a sample of fair value adjustments.

We also assessed management's disclosures regarding fair value measurement (within Notes 1 and 20 to the consolidated financial statements).

Recognition of deferred tax assets

Description of the Matter At 31 December 2022, the Group's deferred tax assets ("DTA") were USD 9,354 million (see Note 8 to the consolidated financial statements). DTAs are recognized to the extent it is probable that taxable profits will be available, against which, the applicable deductible temporary differences or the carryforward of unused tax losses within the loss carryforward period can be utilized. There is significant judgment exercised when estimating future taxable income that is not based on the reversal of taxable temporary differences. Management's estimate of future taxable profits is based on its strategic plan that is sensitive to the assumptions made in estimating future taxable income.

Auditing management's assessment of the recognition of the Group's DTAs was complex due to the highly judgmental nature of estimating future taxable profits over the life of underlying tax loss carryforwards. Estimating future profitability is inherently subjective as it is sensitive to future economic, market and other conditions, which are difficult to predict, such as the impact of geopolitics, inflation, interest rates, and the ongoing COVID-19 pandemic. Specifically, some of the more subjective key macro-economic assumptions used included gross domestic product growth rates, equity market performance, and interest rate expectations.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design, and tested the operating effectiveness of management's controls over DTA valuation, which included the assumptions used in developing the strategic plans and estimating future taxable income.

We assessed the completeness and accuracy of the data used for the estimations of future taxable income. This included recalculating the outputs of models applied to the recognition process for DTAs.

We involved specialists to assist in assessing the key economic assumptions embedded in the strategic plans. We compared key assumptions used to forecast future taxable income to externally available historical and prospective data and assumptions, and assessed the sensitivity of the outcomes using reasonably possible changes in assumptions.

We also assessed management's disclosure regarding recognized and unrecognized deferred tax assets (within Note 8 to the consolidated financial statements).

Expected credit losses

Description of the Matter At 31 December 2022, the Group's allowances and provisions for expected credit losses ("ECL") were USD 1,091 million. As explained in Notes 1, 9 and 19 to the consolidated financial statements, ECL is recognized for financial assets measured at amortized cost, financial assets measured at fair value through other comprehensive income, fee and lease receivables, financial guarantees and irrevocable loan commitments. ECL is also recognized on the undrawn portion of revolving revocable credit lines, which include the Group's credit card limits and master credit facilities. The allowances and provisions for ECL consists of exposures that are in default which are individually evaluated for impairment (stage 3), as well

as losses inherent in the loan portfolio that are not specifically identified (stage 1 and stage 2). Management's ECL estimates represent the difference between contractual cash flows and those the Group expects to receive, discounted at the effective interest rate. The method used to calculate ECL is based on a combination of the following principal factors: probability of default ("PD"), loss given default ("LGD") and exposure at default ("EAD").

Auditing management's estimate of the allowances and provisions for ECL was complex due to the highly judgmental nature of forward-looking economic scenarios that form the basis of the ECL calculation, their probability weightings, and the credit risk models used to estimate stage 1 and stage 2 ECL. The geopolitical tensions and macroeconomic developments during 2022, such as the Russian invasion into Ukraine, US/China developments, inflation, including emerging stagflation risks and monetary policy challenges, and continued restrictions in certain locations due to the ongoing COVID-19 pandemic contribute to further uncertainty, and as a consequence additional complexity in estimating ECL. As a result, the ECL estimation requires higher management judgement, specifically within the following two areas: (i) scenario selection, including assumptions about the scenario severity, the possible geopolitical developments and macroeconomic and market developments and the number of scenarios necessary to sufficiently cover the bandwidth of potential outcomes, as well as related scenario weights and post-model adjustments; and, (ii) credit risk models, since the output from historic data based models may not be indicative of current or future conditions.

Additionally, auditing the measurement of individual ECL for stage 3 was complex due to the high degree of judgment involved in management's process for estimating ECL based on assumptions. These assumptions take into account expected future cash flows from collateral and other credit enhancements or expected payouts from bankruptcy proceedings for unsecured claims and, where applicable, time to realization of collateral and the seniority of claims.

*How We
Addressed the
Matter in Our
Audit*

We obtained an understanding, evaluated the design and tested the operating effectiveness of management's controls over the ECL estimate, including management's choice of forward-looking economic scenarios used to measure ECL and the probability weighting assigned to such scenarios. We evaluated management's methodologies and governance controls for developing and monitoring the economic scenarios used and the probability weightings assigned to them, and related post-model adjustment. Supported by specialists, we assessed the key macroeconomic variables used in the forward-looking scenarios, such as real gross domestic product growth, unemployment rate, interest rates and house price indices, and evaluated the modelled correlation and translation of those macroeconomic factors to the ECL estimate. We further assessed the appropriateness of the post-model adjustments by considering management's governance process, assumptions used and sensitivity analysis.

We also obtained an understanding, evaluated the design and tested the operating effectiveness of controls over credit risk models used in the ECL estimate, including controls over the completeness and accuracy of model input data, calculation logic, and output data used in the overall ECL calculation. With the support of specialists, on a sample basis, we performed an evaluation of management's models and tested the model outcomes by inspecting model documentation, reperforming model calculations, and comparing data used as inputs to management's forecast to external sources, among other procedures.

For the measurement of stage 3, we obtained an understanding, evaluated the design and tested the operating effectiveness of controls over management's process, including an evaluation of the assumptions used by management regarding the future cash flows from debtors' continuing operations and/or the liquidation of collateral. Supported by specialists in certain areas, we additionally tested collateral valuation, cash flow assumptions and exit strategies by performing inquiries of management, inspecting underlying documents, such as loan contracts, financial statements, covenants, budgets and business plans, and by re-performing discounted cash flow calculations among other procedures, on a sample basis.

We also assessed management's disclosures regarding financial assets at amortized cost and other positions in scope of expected credit loss measurement (within Notes 1, 9 and 19 to the consolidated financial statements).

Ernst & Young Ltd

Ernst & Young Ltd

We have served as the Group's auditor since 1998.

Basel, Switzerland

3 March 2023

UBS AG consolidated financial statements

Primary financial statements and share information

Audited |

Income statement

<i>USD m</i>	Note	For the year ended		
		31.12.22	31.12.21	31.12.20
Interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	3	11,803	8,534	8,816
Interest expense from financial instruments measured at amortized cost	3	(6,696)	(3,366)	(4,333)
Net interest income from financial instruments measured at fair value through profit or loss and other	3	1,410	1,437	1,305
Net interest income	3	6,517	6,605	5,788
Other net income from financial instruments measured at fair value through profit or loss	3	7,493	5,844	6,930
Fee and commission income	4	20,846	24,422	20,982
Fee and commission expense	4	(1,823)	(1,985)	(1,775)
Net fee and commission income	4	19,023	22,438	19,207
Other income	5	1,882	941	1,549
Total revenues		34,915	35,828	33,474
Credit loss expense / (release)	19	29	(148)	695
Personnel expenses	6	15,080	15,661	14,686
General and administrative expenses	7	9,001	9,476	8,486
Depreciation, amortization and impairment of non-financial assets	11,12	1,845	1,875	1,909
Operating expenses		25,927	27,012	25,081
Operating profit / (loss) before tax		8,960	8,964	7,699
Tax expense / (benefit)	8	1,844	1,903	1,488
Net profit / (loss)		7,116	7,061	6,211
Net profit / (loss) attributable to non-controlling interests		32	29	15
Net profit / (loss) attributable to shareholders		7,084	7,032	6,196

Statement of comprehensive income

USD m	Note	For the year ended		
		31.12.22	31.12.21	31.12.20
Comprehensive income attributable to shareholders				
Net profit / (loss)		7,084	7,032	6,196
Other comprehensive income that may be reclassified to the income statement				
Foreign currency translation				
Foreign currency translation movements related to net assets of foreign operations, before tax		(869)	(1,046)	2,040
Effective portion of changes in fair value of hedging instruments designated as net investment hedges, before tax		319	492	(938)
Foreign currency translation differences on foreign operations reclassified to the income statement		32	(1)	(7)
Effective portion of changes in fair value of hedging instruments designated as net investment hedges reclassified to the income statement		(4)	10	2
Income tax relating to foreign currency translations, including the effect of net investment hedges		4	35	(67)
Subtotal foreign currency translation, net of tax		(519)	(510)	1,030
Financial assets measured at fair value through other comprehensive income				
Net unrealized gains / (losses), before tax		(440)	(203)	223
Net realized (gains) / losses reclassified to the income statement from equity		1	(9)	(40)
Reclassification of financial assets to Other financial assets measured at amortized cost ¹		449		
Income tax relating to net unrealized gains / (losses)		(3)	55	(48)
Subtotal financial assets measured at fair value through other comprehensive income, net of tax		6	(157)	136
Cash flow hedges of interest rate risk	25			
Effective portion of changes in fair value of derivative instruments designated as cash flow hedges, before tax		(5,758)	(992)	2,012
Net (gains) / losses reclassified to the income statement from equity		(159)	(1,073)	(770)
Income tax relating to cash flow hedges		1,124	390	(231)
Subtotal cash flow hedges, net of tax		(4,793)²	(1,675)	1,011
Cost of hedging	25			
Cost of hedging, before tax		45	(32)	(13)
Income tax relating to cost of hedging		0	6	0
Subtotal cost of hedging, net of tax		45	(26)	(13)
Total other comprehensive income that may be reclassified to the income statement, net of tax		(5,260)	(2,368)	2,165
Other comprehensive income that will not be reclassified to the income statement				
Defined benefit plans	26			
Gains / (losses) on defined benefit plans, before tax		40	133	(222)
Income tax relating to defined benefit plans		41	(31)	88
Subtotal defined benefit plans, net of tax		81	102	(134)
Own credit on financial liabilities designated at fair value	20			
Gains / (losses) from own credit on financial liabilities designated at fair value, before tax		867	46	(293)
Income tax relating to own credit on financial liabilities designated at fair value		(71)	0	0
Subtotal own credit on financial liabilities designated at fair value, net of tax		796	46	(293)
Total other comprehensive income that will not be reclassified to the income statement, net of tax		877	148	(427)
Total other comprehensive income		(4,383)	(2,220)	1,738
Total comprehensive income attributable to shareholders		2,701	4,813	7,934
Comprehensive income attributable to non-controlling interests				
Net profit / (loss)		32	29	15
Total other comprehensive income that will not be reclassified to the income statement, net of tax		(14)	(16)	21
Total comprehensive income attributable to non-controlling interests		18	13	36
Total comprehensive income		7,116	7,061	6,211
Net profit / (loss)		7,116	7,061	6,211
Other comprehensive income		(4,396)	(2,235)	1,759
<i>of which: other comprehensive income that may be reclassified to the income statement</i>		<i>(5,260)</i>	<i>(2,368)</i>	<i>2,165</i>
<i>of which: other comprehensive income that will not be reclassified to the income statement</i>		<i>864</i>	<i>132</i>	<i>(406)</i>
Total comprehensive income		2,719	4,826	7,970

1 Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. Refer to Note 1b for more information.

2 Mainly reflects net unrealized losses on US dollar hedging derivatives resulting from significant increases in the relevant US dollar long-term interest rates.

Balance sheet

<i>USD m</i>	Note	31.12.22	31.12.21
Assets			
Cash and balances at central banks		169,445	192,817
Loans and advances to banks	9	14,671	15,360
Receivables from securities financing transactions measured at amortized cost	9, 21	67,814	75,012
Cash collateral receivables on derivative instruments	9, 21	35,033	30,514
Loans and advances to customers	9	390,027	398,693
Other financial assets measured at amortized cost	9, 13a	53,389	26,236
Total financial assets measured at amortized cost		730,379	738,632
Financial assets at fair value held for trading	20	108,034	131,033
<i>of which: assets pledged as collateral that may be sold or repledged by counterparties</i>		<i>36,742</i>	<i>43,397</i>
Derivative financial instruments	10, 20, 21	150,109	118,145
Brokerage receivables	20	17,576	21,839
Financial assets at fair value not held for trading	20	59,408	59,642
Total financial assets measured at fair value through profit or loss		335,127	330,659
Financial assets measured at fair value through other comprehensive income	19, 20	2,239	8,844
Investments in associates	28b	1,101	1,243
Property, equipment and software	11	11,316	11,712
Goodwill and intangible assets	12	6,267	6,378
Deferred tax assets	8	9,354	8,839
Other non-financial assets	13b	9,652	9,836
Total assets		1,105,436	1,116,145
Liabilities			
Amounts due to banks		11,596	13,101
Payables from securities financing transactions measured at amortized cost	21	4,202	5,533
Cash collateral payables on derivative instruments	21	36,436	31,801
Customer deposits	14	527,171	544,834
Funding from UBS Group AG measured at amortized cost	14b	56,147	57,295
Debt issued measured at amortized cost	16	59,499	82,432
Other financial liabilities measured at amortized cost	18a	10,391	9,765
Total financial liabilities measured at amortized cost		705,442	744,762
Financial liabilities at fair value held for trading	20	29,515	31,688
Derivative financial instruments	10, 20, 21	154,906	121,309
Brokerage payables designated at fair value	20	45,085	44,045
Debt issued designated at fair value	15, 20	71,842	71,460
Other financial liabilities designated at fair value	18b, 20	32,033	32,414
Total financial liabilities measured at fair value through profit or loss		333,382	300,916
Provisions	17a	3,183	3,452
Other non-financial liabilities	18c	6,489	8,572
Total liabilities		1,048,496	1,057,702
Equity			
Share capital		338	338
Share premium		24,648	24,653
Retained earnings		31,746	27,912
Other comprehensive income recognized directly in equity, net of tax		(133)	5,200
Equity attributable to shareholders		56,598	58,102
Equity attributable to non-controlling interests		342	340
Total equity		56,940	58,442
Total liabilities and equity		1,105,436	1,116,145

Statement of changes in equity

<i>USD m</i>	Share capital	Share premium	Retained earnings
Balance as of 31 December 2019	338	24,659	23,419
Premium on shares issued and warrants exercised		(4) ²	
Tax (expense) / benefit		1	
Dividends			(3,848)
Translation effects recognized directly in retained earnings			(49)
Share of changes in retained earnings of associates and joint ventures			(40)
New consolidations / (deconsolidations) and other increases / (decreases) ³		(76)	
Total comprehensive income for the year			5,769
<i>of which: net profit / (loss)</i>			6,196
<i>of which: OCI, net of tax</i>			(427)
Balance as of 31 December 2020	338	24,580	25,251
Premium on shares issued and warrants exercised		(7) ²	
Tax (expense) / benefit		(102)	
Dividends			(4,539)
Translation effects recognized directly in retained earnings			18
Share of changes in retained earnings of associates and joint ventures			1
New consolidations / (deconsolidations) and other increases / (decreases) ⁴		182	
Total comprehensive income for the year			7,180
<i>of which: net profit / (loss)</i>			7,032
<i>of which: OCI, net of tax</i>			148
Balance as of 31 December 2021	338	24,653	27,912
Premium on shares issued and warrants exercised		(14) ²	
Tax (expense) / benefit		5	
Dividends			(4,200)
Translation effects recognized directly in retained earnings			69
Share of changes in retained earnings of associates and joint ventures			0
New consolidations / (deconsolidations) and other increases / (decreases)		4	3
Total comprehensive income for the year			7,961
<i>of which: net profit / (loss)</i>			7,084
<i>of which: OCI, net of tax</i>			877
Balance as of 31 December 2022	338	24,648	31,746

- 1 Excludes other comprehensive income related to defined benefit plans and own credit, which is recorded directly in Retained earnings.
- 2 Includes decreases related to recharges by UBS Group AG for share-based compensation awards granted to employees of UBS AG or its subsidiaries.
- 3 Mainly relates to the establishment of a banking partnership with Banco do Brasil. In 2020, UBS AG issued a 49.99% stake in UBS Brasil Serviços in exchange for exclusive access to Banco do Brasil's corporate clients. Upon completion of the transaction in 2020, equity attributable to non-controlling interests increased by USD 115m, with no material effect on equity attributable to shareholders.
- 4 Includes the effects related to the launch of UBS AG's new operational partnership entity with Sumitomo Mitsui Trust Holdings, Inc in 2021.

Other comprehensive income recognized directly in equity, net of tax ¹	<i>of which: foreign currency translation</i>	<i>of which: financial assets at fair value through OCI</i>	<i>of which: cash flow hedges</i>	Total equity attributable to shareholders	Non-controlling interests	Total equity
5,306	4,032	14	1,260	53,722	174	53,896
				(4)		(4)
				1		1
				(3,848)	(6)	(3,854)
49		0	49	0		0
				(40)		(40)
65	65			(12)	115	103
2,165	1,030	136	1,011	7,934	36	7,970
				6,196	15	6,211
2,165	1,030	136	1,011	1,738	21	1,759
7,585	5,126	151	2,321	57,754	319	58,073
				(7)		(7)
				(102)		(102)
				(4,539)	(4)	(4,542)
(18)		0	(18)	0		0
				1		1
				182	12	193
(2,368)	(510)	(157)	(1,675)	4,813	13	4,826
				7,032	29	7,061
(2,368)	(510)	(157)	(1,675)	(2,220)	(16)	(2,235)
5,200	4,617	(7)	628	58,102	340	58,442
				(14)		(14)
				5		5
				(4,200)	(9)	(4,209)
(69)		0	(69)	0		0
				0		0
(3)		(3)		4	(7)	(3)
(5,260)	(519)	6	(4,793)	2,701	18	2,719
				7,084	32	7,116
(5,260)	(519)	6	(4,793)	(4,383)	(14)	(4,396)
(133)	4,098	(4)	(4,234)	56,598	342	56,940

Share information and earnings per share

Ordinary share capital

As of 31 December 2022, UBS AG had 3,858,408,466 issued shares (31 December 2021: 3,858,408,466 shares) with a nominal value of CHF 0.10 each, leading to a share capital of CHF 385,840,846.60. The shares were entirely held by UBS Group AG.

Following revisions to Swiss Corporate Law that are effective from 1 January 2023, the Board of Directors (the BoD) will propose at the 2023 Annual General Meeting (the AGM) that the shareholders approve the conversion of the share capital currency of UBS AG from the Swiss franc to the US dollar. This would align the share capital currency with the financial statement presentation currency of UBS AG. If the change is approved, the share capital of UBS AG will be slightly reduced to a nominal value per share of USD 0.10 (from CHF 0.10 currently), with the amount of the reduction allocated to the capital contribution reserve (presented as *Share premium* in the consolidated financial statements). Total equity reported for UBS AG consolidated will not change.

Conditional share capital

As of 31 December 2022, the following conditional share capital was available to UBS AG's BoD:

- A maximum of CHF 38,000,000 represented by up to 380,000,000 fully paid registered shares with a nominal value of CHF 0.10 each, to be issued through the voluntary or mandatory exercise of conversion rights and / or warrants granted in connection with the issuance of bonds or similar financial instruments on national or international capital markets. This conditional capital allowance was approved at the AGM of UBS AG on 14 April 2010. The BoD has not made use of such allowance.

Authorized share capital

UBS AG had no authorized capital available to issue on 31 December 2022.

Earnings per share

In 2015, UBS AG shares were delisted from the SIX Swiss Exchange and the New York Stock Exchange. As of 31 December 2022, 100% of UBS AG's issued shares were held by UBS Group AG and therefore were not publicly traded. Accordingly, earnings per share information is not provided for UBS AG.

Statement of cash flows

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Cash flow from / (used in) operating activities			
Net profit / (loss)	7,116	7,061	6,211
Non-cash items included in net profit and other adjustments:			
Depreciation, amortization and impairment of non-financial assets	1,845	1,875	1,909
Credit loss expense / (release)	29	(148)	695
Share of net profits of associates and joint ventures and impairment related to associates	(32)	(105)	(84)
Deferred tax expense / (benefit)	491	432	355
Net loss / (gain) from investing activities	(1,515)	(230)	(698)
Net loss / (gain) from financing activities	(16,587)	100	3,246
Other net adjustments	5,792	3,790	(8,061)
Net change in operating assets and liabilities:			
Loans and advances to banks and amounts due to banks	(1,088)	2,148	3,586
Securities financing transactions measured at amortized cost	4,444	(2,316)	9,588
Cash collateral on derivative instruments	73	(3,311)	(3,486)
Loans and advances to customers and customer deposits	(7,756)	2,406	18,934
Financial assets and liabilities at fair value held for trading and derivative financial instruments	8,173	(10,635)	11,326
Brokerage receivables and payables	6,019	8,115	(5,199)
Financial assets at fair value not held for trading and other financial assets and liabilities	5,557	19,793	392
Provisions and other non-financial assets and liabilities	(437)	2,617	(1,213)
Income taxes paid, net of refunds	(1,495)	(1,026)	(919)
Net cash flow from / (used in) operating activities	10,630	30,563	36,581
Cash flow from / (used in) investing activities			
Purchase of subsidiaries, associates and intangible assets	(3)	(1)	(46)
Disposal of subsidiaries, associates and intangible assets	1,729 ¹	593	674
Purchase of property, equipment and software	(1,478)	(1,581)	(1,573)
Disposal of property, equipment and software	161	295	364
Purchase of financial assets measured at fair value through other comprehensive income	(4,783)	(5,802)	(6,290)
Disposal and redemption of financial assets measured at fair value through other comprehensive income	4,084	5,052	4,530
Net (purchase) / redemption of debt securities measured at amortized cost	(11,993)	(415)	(4,166)
Net cash flow from / (used in) investing activities	(12,283)	(1,860)	(6,506)

Table continues below.

Statement of cash flows (continued)

Table continued from above.

USD m	For the year ended		
	31.12.22	31.12.21	31.12.20
Cash flow from / (used in) financing activities			
Net short-term debt issued / (repaid)	(12,249)	(3,093)	23,845
Distributions paid on UBS AG shares	(4,200)	(4,539)	(3,848)
Issuance of debt designated at fair value and long-term debt measured at amortized cost ²	79,457	98,619	80,153
Repayment of debt designated at fair value and long-term debt measured at amortized cost ²	(67,670)	(79,799)	(87,099)
Net cash flows from other financing activities	(595)	(261)	(553)
Net cash flow from / (used in) financing activities	(5,257)	10,927	12,498
Total cash flow			
Cash and cash equivalents at the beginning of the year	207,755	173,430	119,804
Net cash flow from / (used in) operating, investing and financing activities	(6,911)	39,630	42,573
Effects of exchange rate differences on cash and cash equivalents	(5,645)	(5,306)	11,053
Cash and cash equivalents at the end of the year³	195,200	207,755	173,430
<i>of which: cash and balances at central banks⁴</i>	<i>169,363</i>	<i>192,706</i>	<i>158,088</i>
<i>of which: loans and advances to banks</i>	<i>13,329</i>	<i>13,822</i>	<i>13,928</i>
<i>of which: money market paper⁵</i>	<i>12,508</i>	<i>1,227</i>	<i>1,415</i>
Additional information			
Net cash flow from / (used in) operating activities includes:			
Interest received in cash	15,730	11,170	11,929
Interest paid in cash	8,315	4,802	6,414
Dividends on equity investments, investment funds and associates received in cash ⁶	1,907	2,531	1,901

- Includes cash proceeds from the sales of: UBS AG's shareholding in Mitsubishi Corp.-UBS Realty Inc.; UBS AG's wholly owned subsidiary UBS Swiss Financial Advisers AG; UBS AG's US alternative investments administration business; and UBS AG's domestic wealth management business in Spain. Refer to Note 29 for more information. Also includes dividends received from associates.
- Includes funding from UBS Group AG measured at amortized cost (recognized in Funding from UBS Group AG measured at amortized cost in the balance sheet) and measured at fair value (recognized in Other financial liabilities designated at fair value in the balance sheet).
- USD 4,253m, USD 3,408m and USD 3,828m of cash and cash equivalents (mainly reflected in Loans and advances to banks) were restricted as of 31 December 2022, 31 December 2021 and 31 December 2020, respectively. Refer to Note 22 for more information.
- Includes only balances with an original maturity of three months or less.
- Money market paper is included in the balance sheet under Financial assets at fair value held for trading (31 December 2022: USD 2m; 31 December 2021: USD 20m; 31 December 2020: USD 117m), Financial assets measured at fair value through other comprehensive income (31 December 2022: USD 0m; 31 December 2021: USD 0m; 31 December 2020: USD 178m), Financial assets at fair value not held for trading (31 December 2022: USD 6,048m; 31 December 2021: USD 1,066m; 31 December 2020: USD 536m), and Other financial assets measured at amortized cost (31 December 2022: USD 6,459m; 31 December 2021: USD 141m; 31 December 2020: USD 584m).
- Includes dividends received from associates reported within Net cash flow from / (used in) investing activities.

Changes in liabilities arising from financing activities

USD m	Debt issued measured at amortized cost	of which: short-term ¹	of which: long-term ²	Debt issued designated at fair value	Over-the-counter debt instruments ³	Funding from UBS Group AG ⁴	Total
Balance as of 1 January 2021	85,351	46,666	38,685	59,868	2,060	55,354	202,633
Cash flows	(550)	(3,093)	2,543	9,075	126	7,076	15,727
Non-cash changes	(2,369)	(475)	(1,894)	2,516	(58)	(2,795)	(2,705)
<i>of which: foreign currency translation</i>	<i>(1,841)</i>	<i>(475)</i>	<i>(1,366)</i>	<i>(1,611)</i>	<i>(65)</i>	<i>(1,340)</i>	<i>(4,857)</i>
<i>of which: fair value changes</i>				4,127	7	(30)	4,104
<i>of which: hedge accounting and other effects</i>	<i>(528)</i>		<i>(528)</i>			<i>(1,425)</i>	<i>(1,953)</i>
Balance as of 31 December 2021	82,432	43,098	39,334	71,460	2,128	59,635	215,655
Cash flows	(19,390)	(12,249)	(7,141)	13,277	(251)	5,903	(461)
Non-cash changes	(3,543)	(1,173)	(2,370)	(12,895)	(193)	(7,595)	(24,225)
<i>of which: foreign currency translation</i>	<i>(2,233)</i>	<i>(1,173)</i>	<i>(1,061)</i>	<i>(1,405)</i>	<i>(113)</i>	<i>(1,285)</i>	<i>(5,036)</i>
<i>of which: fair value changes</i>				(11,490)	(80)	(1,060)	(12,629)
<i>of which: hedge accounting and other effects</i>	<i>(1,310)</i>		<i>(1,310)</i>			<i>(5,250)</i>	<i>(6,560)</i>
Balance as of 31 December 2022	59,499	29,676	29,823	71,842	1,684	57,943	190,968

- Debt with an original contractual maturity of less than one year.

- 2 Debt with an original maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features.
- 3 Included in balance sheet line Other financial liabilities designated at fair value.
- 4 Includes funding from UBS Group AG measured at amortized cost (refer to Note 14b) and measured at fair value (refer to Note 18b).

Notes to the UBS AG consolidated financial statements

Note 1 Summary of material accounting policies

The following table provides an overview of information included in this Note.

380	a) Material accounting policies	391	4) Share-based and other deferred compensation plans
380	Basis of accounting	392	5) Post-employment benefit plans
380	1) Consolidation	392	6) Income taxes
380	2) Financial instruments	393	7) Property, equipment and software
380	a. Recognition	393	8) Goodwill
381	b. Classification, measurement and presentation	393	9) Provisions and contingent liabilities
385	c. Loan commitments and financial guarantees	394	10) Foreign currency translation
385	d. Interest income and expense	394	11) Contracts on UBS Group AG shares
385	e. Derecognition		
385	f. Fair value of financial instruments	395	b) Changes in accounting policies, comparability and other adjustments
386	g. Allowances and provisions for expected credit losses		
389	h. Restructured and modified financial assets		
389	i. Offsetting	395	c) International Financial Reporting Standards and Interpretations to be adopted in 2023 and later and other changes
390	j. Hedge accounting		
390	3) Fee and commission income and expenses		

Note 1 Summary of material accounting policies (continued)

a) Material accounting policies

This Note describes the material accounting policies applied in the preparation of the consolidated financial statements (the Financial Statements) of UBS AG and its subsidiaries (UBS AG). On 23 February 2023, the Financial Statements were authorized for issue by the Board of Directors (the BoD).

Basis of accounting

The Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (the IASB), and are presented in US dollars (USD).

Disclosures marked as audited in the “Risk, capital, liquidity and funding, and balance sheet” section of this report form an integral part of the Financial Statements. These disclosures relate to requirements under IFRS 7, *Financial Instruments: Disclosures*, and IAS 1, *Presentation of Financial Statements*, and are not repeated in this section.

The accounting policies described in this Note have been applied consistently in all years presented unless otherwise stated in Note 1b.

Critical accounting estimates and judgments

Preparation of these Financial Statements under IFRS requires management to apply judgment and make estimates and assumptions that affect reported amounts of assets, liabilities, income and expenses and disclosure, of contingent assets and liabilities, and may involve significant uncertainty at the time they are made. Such estimates and assumptions are based on the best available information. UBS AG regularly reassesses such estimates and assumptions, which encompass historical experience, expectations of the future and other pertinent factors, to determine their continuing relevance based on current conditions, updating them as necessary. Changes in those estimates and assumptions may have a significant effect on the Financial Statements. Furthermore, actual results may differ significantly from UBS AG’s estimates, which could result in significant losses to UBS AG, beyond what was anticipated or provided for.

The following areas contain estimation uncertainty or require critical judgment and have a significant effect on amounts recognized in the Financial Statements:

- expected credit loss measurement (refer to item 2g in this Note and to Note 19);
- fair value measurement (refer to item 2f in this Note and to Note 20);
- income taxes (refer to item 6 in this Note and to Note 8);
- provisions and contingent liabilities (refer to item 9 in this Note and to Note 17);
- post-employment benefit plans (refer to item 5 in this Note and to Note 26);
- goodwill (refer to item 8 in this Note and to Note 12); and
- consolidation of structured entities (refer to item 1 in this Note and to Note 28).

1) Consolidation

The Financial Statements include the financial statements of the UBS AG and its subsidiaries, presented as a single economic entity; intercompany transactions and balances have been eliminated. UBS AG consolidates all entities that it controls, including structured entities (SEs), which is the case when it has: (i) power over the relevant activities of the entity; (ii) exposure to an entity’s variable returns; and (iii) the ability to use its power to affect its own returns.

Consideration is given to all facts and circumstances to determine whether UBS AG has power over another entity, i.e., the current ability to direct the relevant activities of an entity when decisions about those activities need to be made. Subsidiaries, including SEs, are consolidated from the date when control is gained and deconsolidated from the date when control ceases. Control, or the lack thereof, is reassessed if facts and circumstances indicate that there is a change to one or more elements required to establish that control is present.

Business combinations are accounted for using the acquisition method. The amount of any non-controlling interest is measured at the non-controlling interest’s proportionate share of the acquiree’s identifiable net assets.

- **Refer to Note 28 for more information**

Critical accounting estimates and judgments

Each individual entity is assessed for consolidation in line with the aforementioned consolidation principles. The assessment of control can be complex and requires the use of significant judgment, in particular in determining whether UBS AG has power over the entity. As the nature and extent of UBS

AG's involvement is unique for each entity, there is no uniform consolidation outcome by entity. Certain entities within a class may be consolidated while others may not. When carrying out the consolidation assessment, judgment is exercised considering all the relevant facts and circumstances, including the nature and activities of the investee, as well as the substance of voting and similar rights.

- **Refer to Note 28 for more information**

2) Financial instruments

a. Recognition

UBS AG recognizes financial instruments when it becomes a party to contractual provisions of an instrument. UBS AG applies settlement date accounting to all standard purchases and sales of non-derivative financial instruments.

Note 1 Summary of material accounting policies (continued)

In transactions where UBS AG acts as a transferee, to the extent the financial asset transfer does not qualify for derecognition by the transferor, UBS AG does not recognize the transferred instrument as its asset.

UBS AG also acts in a fiduciary capacity, which results in it holding or placing assets on behalf of individuals, trusts, retirement benefit plans and other institutions. Unless these items meet the definition of an asset and the recognition criteria are satisfied, they are not recognized on UBS AG's balance sheet and the related income is excluded from the Financial Statements.

Client cash balances associated with derivatives clearing and execution services are not recognized on the balance sheet if, through contractual agreement, regulation or practice, UBS AG neither obtains benefits from nor controls such cash balances.

b. Classification, measurement and presentation

Financial assets

Where the contractual terms of a debt instrument result in cash flows that are solely payments of principal and interest (SPPI) on the principal amount outstanding, the debt instrument is classified as measured at amortized cost if it is held within a business model that has an objective of holding financial assets to collect contractual cash flows, or at fair value through other comprehensive income (FVOCI) if it is held within a business model with the objective being achieved by both collecting contractual cash flows and selling financial assets.

All other financial assets are measured at fair value through profit or loss (FVTPL), including those held for trading or those managed on a fair value basis, except for derivatives designated in a hedge relationship, in which case hedge accounting requirements apply (refer to item 2j in this Note for more information).

Business model assessment and contractual cash flow characteristics

UBS AG determines the nature of a business model by considering the way financial assets are managed to achieve a particular business objective.

In assessing whether contractual cash flows are SPPI, the UBS AG considers whether the contractual terms of the financial asset contain a term that could change the timing or amount of contractual cash flows arising over the life of the instrument. This assessment includes contractual cash flows that may vary due to environmental, social and governance (ESG) triggers.

Financial liabilities

Financial liabilities measured at amortized cost

Financial liabilities measured at amortized cost include *Debt issued measured at amortized cost* and *Funding from UBS Group AG measured at amortized cost*. The latter includes contingent capital instruments issued to UBS Group AG containing contractual provisions under which the principal amounts would be written down or converted into equity upon either a specified common equity tier 1 (CET1) ratio breach or a determination by the Swiss Financial Market Supervisory Authority (FINMA) that a viability event has occurred. Such contractual provisions are not derivatives, as the underlying is deemed to be a non-financial variable specific to a party to the contract.

If a debt were to be written down or converted into equity in a future period, it would be partially or fully derecognized, with the difference between its carrying amount and the fair value of any equity issued recognized in the income statement.

A gain or loss is recognized in *Other income* when debt issued is subsequently repurchased for market-making or other activities. A subsequent sale of own bonds in the market is treated as a reissuance of debt.

Financial liabilities measured at fair value through profit or loss

UBS AG designates certain issued debt instruments as financial liabilities at fair value through profit or loss, on the basis that such financial instruments include non-closely-related embedded derivatives that significantly impact the cash flows of the instrument and / or are managed on a fair value basis (refer to the table below for more information). Financial instruments including embedded derivatives arise predominantly from the issuance of certain structured debt instruments.

Measurement and presentation

After initial recognition, UBS AG classifies, measures and presents its financial assets and liabilities in accordance with IFRS 9, as described in the table below.

Note 1 Summary of material accounting policies (continued)

Classification, measurement and presentation of financial assets

<u>Financial assets classification</u>	<u>Significant items included</u>	<u>Measurement and presentation</u>
Measured at amortized cost	<p>This classification includes:</p> <ul style="list-style-type: none"> • cash and balances at central banks; • loans and advances to banks; • receivables from securities financing transactions; • cash collateral receivables on derivative instruments; • residential and commercial mortgages; • corporate loans; • secured loans, including Lombard loans, and unsecured loans; • loans to financial advisors; and • debt securities held as high-quality liquid assets (HQLA). 	<p>Measured at amortized cost using the effective interest method less allowances for expected credit losses (ECL) (refer to items 2d and 2g in this Note for more information).</p> <p>The following items are recognized in the income statement:</p> <ul style="list-style-type: none"> • interest income, which is accounted for in accordance with item 2d in this Note; • ECL and reversals; and • foreign exchange (FX) translation gains and losses. <p>When a financial asset at amortized cost is derecognized, the gain or loss is recognized in the income statement.</p> <p>For amounts arising from settlement of certain derivatives, see below in this table.</p>
Measured at FVOCI	<p>Debt instruments measured at FVOCI</p> <p>This classification primarily includes debt securities and certain asset-backed securities held as HQLA.</p>	<p>Measured at fair value, with unrealized gains and losses reported in <i>Other comprehensive income</i>, net of applicable income taxes, until such investments are derecognized. Upon derecognition, any accumulated balances in <i>Other comprehensive income</i> are reclassified to the income statement and reported within <i>Other income</i>.</p> <p>The following items, which are determined on the same basis as for financial assets measured at amortized cost, are recognized in the income statement:</p> <ul style="list-style-type: none"> • interest income, which is accounted for in accordance with item 2d in this Note; • ECL and reversals; and • FX translation gains and losses.

Note 1 Summary of material accounting policies (continued)

Classification, measurement and presentation of financial assets

Financial assets classification	Significant items included	Measurement and presentation
<p>Measured at FVTPL</p> <p>Held for trading</p>	<p>Financial assets held for trading include:</p> <ul style="list-style-type: none"> all derivatives with a positive replacement value, except those that are designated and effective hedging instruments; and other financial assets acquired principally for the purpose of selling or repurchasing in the near term, or that are part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit taking. Included in this category are debt instruments (including those in the form of securities, money market paper, and traded corporate and bank loans) and equity instruments. 	<p>Measured at fair value, with changes recognized in the income statement.</p> <p>Derivative assets (including derivatives that are designated and effective hedging instruments) are generally presented as <i>Derivative financial instruments</i>, except those exchange-traded derivatives (ETD) and over-the-counter (OTC)-cleared derivatives that are legally settled on a daily basis or economically net settled on a daily basis, which are presented within <i>Cash collateral receivables on derivative instruments</i>.</p>
<p>Mandatorily measured at FVTPL – Other</p>	<p>This classification includes financial assets mandatorily measured at FVTPL that are not held for trading, as follows:</p> <ul style="list-style-type: none"> certain structured loans, certain commercial loans, and receivables from securities financing transactions that are managed on a fair value basis; loans managed on a fair value basis, including those hedged with credit derivatives; certain debt securities held as HQLA and managed on a fair value basis; certain investment fund holdings and assets held to hedge delivery obligations related to cash-settled employee compensation plans; brokerage receivables, for which contractual cash flows do not meet the SPPI criterion because the aggregate balance is accounted for as a single unit of account, with interest being calculated on the individual components; auction rate securities, for which contractual cash flows do not meet the SPPI criterion because interest may be reset at rates that contain leverage; equity instruments; and assets held under unit-linked investment contracts. 	<p>Changes in fair value, initial transaction costs, dividends and gains and losses arising on disposal or redemption are recognized in <i>Other net income from financial instruments</i> measured at fair value through profit or loss, except interest income on instruments other than derivatives (refer to item 2d in this Note), interest on derivatives designated as hedging instruments in hedges of interest rate risk and forward points on certain short- and long-duration FX contracts acting as economic hedges, which are reported in <i>Net interest income</i>.</p> <p>Changes in the fair value of derivatives that are designated and effective hedging instruments are presented either in the income statement or <i>Other comprehensive income</i>, depending on the type of hedge relationship (refer to item 2j in this Note for more information).</p>

Note 1 Summary of material accounting policies (continued)

Classification, measurement and presentation of financial liabilities

Financial liabilities classification	Significant items included	Measurement and presentation
Measured at amortized cost	<p>This classification includes:</p> <ul style="list-style-type: none"> • demand and time deposits; • retail savings / deposits; • sweep deposits; • payables from securities financing transactions; • non-structured debt issued; • subordinated debt; • commercial paper and certificates of deposit; • obligations against funding from UBS Group AG; and • cash collateral payables on derivative instruments. 	<p>Measured at amortized cost using the effective interest method.</p> <p>When a financial liability at amortized cost is derecognized, the gain or loss is recognized in the income statement.</p> <p>Interest Income generated from client deposits derecognized pursuant to certain deposit sweep programs is presented within <i>Net interest income from financial instruments measured at fair value through profit or loss and other</i>.</p>
Measured at FVTPL	<p>Held for trading</p> <p>Financial liabilities held for trading include:</p> <ul style="list-style-type: none"> • all derivatives with a negative replacement value (including certain loan commitments), except those that are designated and effective hedging instruments; and • obligations to deliver financial instruments, such as debt and equity instruments, that UBS AG has sold to third parties but does not own (short positions). 	<p>Measurement and presentation of financial liabilities classified at FVTPL follow the same principles as for financial assets classified at FVTPL, except that the amount of change in the fair value of a financial liability designated at FVTPL that is attributable to changes in UBS AG's own credit risk is presented in <i>Other comprehensive income</i> directly within <i>Retained earnings</i> and is never reclassified to the income statement.</p>
Designated at FVTPL	<p>UBS AG designates at FVTPL the following financial liabilities:</p> <ul style="list-style-type: none"> • issued hybrid debt instruments that primarily include equity-linked, credit-linked and rates-linked bonds or notes; • issued debt instruments managed on a fair value basis; • obligations against funding from UBS Group AG managed on a fair value basis; • certain payables from securities financing transactions; • amounts due under unit-linked investment contracts, the cash flows of which are linked to financial assets measured at FVTPL and eliminate an accounting mismatch; and • brokerage payables, which arise in conjunction with brokerage receivables and are measured at FVTPL to achieve measurement consistency. 	<p>Derivative liabilities (including derivatives that are designated and effective hedging instruments) are generally presented as <i>Derivative financial instruments</i>, except those exchange-traded and OTC-cleared derivatives that are legally settled on a daily basis or economically net settled on a daily basis, which are presented within <i>Cash collateral payables on derivative instruments</i>.</p>

Note 1 Summary of material accounting policies (continued)

c. Loan commitments and financial guarantees

Loan commitments are arrangements to provide credit under defined terms and conditions. Irrevocable loan commitments are classified as: (i) derivative loan commitments measured at fair value through profit or loss; (ii) loan commitments designated at fair value through profit or loss; or (iii) loan commitments not measured at fair value. Financial guarantee contracts are contracts that require UBS AG to make specified payments to reimburse the holder for an incurred loss because a specified debtor fails to make payments when due in accordance with the terms of a specified debt instrument.

d. Interest income and expense

Interest income and expense are recognized in the income statement based on the effective interest method. When calculating the effective interest rate (the EIR) for financial instruments (other than credit-impaired financial instruments), UBS AG estimates future cash flows considering all contractual terms of the instrument, but not expected credit losses, with the EIR applied to the gross carrying amount of the financial asset or the amortized cost of a financial liability. However, when a financial asset becomes credit-impaired after initial recognition, interest income is determined by applying the EIR to the amortized cost of the instrument, which represents the gross carrying amount adjusted for any credit loss allowance.

Upfront fees, including fees on loan commitments not measured at fair value where a loan is expected to be issued, and direct costs are included within the initial measurement of a financial instrument measured at amortized cost or FVOCI and recognized over the expected life of the instrument as part of its EIR.

Fees related to loan commitments where no loan is expected to be issued, as well as loan syndication fees where UBS AG does not retain a portion of the syndicated loan or where UBS AG does retain a portion of the syndicated loan at the same effective yield for comparable risk as other participants, are included in *Net fee and commission income* and either recognized over the life of the commitment or when syndication occurs.

- **Refer to item 3 in this Note for more information**

Interest income on financial assets, excluding derivatives, is included in interest income when positive and in interest expense when negative. Similarly, interest expense on financial liabilities, excluding derivatives, is included in interest expense, except when interest rates are negative, in which case it is included in interest income.

- **Refer to item 2b in this Note and Note 3 for more information**

e. Derecognition

Financial assets

UBS AG derecognizes a transferred financial asset, or a portion of a financial asset, if the purchaser has received substantially all the risks and rewards of the asset or a significant part of the risks and rewards combined with a practical ability to sell or pledge the asset.

Where financial assets have been pledged as collateral or in similar arrangements, they are considered to have been transferred if the counterparty has received the contractual rights to the cash flows of the pledged assets, as may be evidenced by, for example, the counterparty's right to sell or repledge the assets. In transfers where control over the financial asset is retained, UBS AG continues to recognize the asset to the extent of its continuing involvement, determined by the extent to which it is exposed to changes in the value of the transferred asset following the transfer.

- **Refer to Note 22 for more information**

Financial liabilities

UBS AG derecognizes a financial liability when it is extinguished, i.e., when the obligation specified in the contract is discharged, canceled or expires. When an existing financial liability is exchanged for a new one from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, the original liability is derecognized and a new liability recognized with any difference in the respective carrying amounts recorded in the income statement.

Certain OTC derivative contracts and most exchange-traded futures and option contracts cleared through central clearing counterparties and exchanges are considered to be settled on a daily basis, as the payment or receipt of variation margin on a daily basis represents legal or economic settlement, which results in derecognition of the associated derivatives.

- **Refer to Note 21 for more information**

f. Fair value of financial instruments

UBS AG accounts for a significant portion of its assets and liabilities at fair value. Fair value is the price on the measurement date that would be received for the sale of an asset or paid to transfer a liability in an orderly transaction between market participants in the principal market, or in the most advantageous market in the absence of a principal market.

- **Refer to Note 20 for more information**

Note 1 Summary of material accounting policies (continued)

Critical accounting estimates and judgments

The use of valuation techniques, modeling assumptions and estimates of unobservable market inputs in the fair valuation of financial instruments requires significant judgment and could affect the amount of gain or loss recorded for a particular position. Valuation techniques that rely more heavily on unobservable inputs and sophisticated models inherently require a higher level of judgment and may require adjustment to reflect factors that market participants would consider in estimating fair value, such as close-out costs, which are presented in Note 20d.

UBS AG's governance framework over fair value measurement is described in Note 20b, and UBS AG provides a sensitivity analysis of the estimated effects arising from changing significant unobservable inputs in Level 3 financial instruments to reasonably possible alternative assumptions in Note 20f.

- **Refer to Note 20 for more information**
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g. Allowances and provisions for expected credit losses

ECL are recognized for financial assets measured at amortized cost, financial assets measured at FVOCI, fee and lease receivables, financial guarantees, and loan commitments not measured at fair value. ECL are also recognized on the undrawn portion of committed unconditionally revocable credit lines, which include UBS AG's credit card limits and master credit facilities, as UBS AG is exposed to credit risk because the borrower has the ability to draw down funds before UBS AG can take credit risk mitigation actions.

Recognition of expected credit losses

ECL are recognized on the following basis.

- Stage 1 instruments: Maximum 12-month ECL are recognized from initial recognition, reflecting the portion of lifetime cash shortfalls that would result if a default occurs in the 12 months after the reporting date, weighted by the risk of a default occurring.
- Stage 2 instruments: Lifetime ECL are recognized if a significant increase in credit risk (an SICR) is observed subsequent to the instrument's initial recognition, reflecting lifetime cash shortfalls that would result from all possible default events over the expected life of a financial instrument, weighted by the risk of a default occurring. When an SICR is no longer observed, the instrument will move back to stage 1.
- Stage 3 instruments: Lifetime ECL are always recognized for credit-impaired financial instruments, as determined by the occurrence of one or more loss events, by estimating expected cash flows based on a chosen recovery strategy. Credit-impaired exposures may include positions for which no allowance has been recognized, for example because they are expected to be fully recoverable through collateral held.
- Changes in lifetime ECL since initial recognition are also recognized for assets that are purchased or originated credit-impaired (POCI). POCI financial instruments include those that are purchased at a deep discount or newly originated with a defaulted counterparty; they remain a separate category until derecognition.

All or part of a financial asset is written off if it is deemed uncollectible or forgiven. Write-offs reduce the principal amount of a claim and are charged against related allowances for credit losses. Recoveries, in part or in full, of amounts previously written off are generally credited to *Credit loss expense / (release)*.

ECL are recognized in the income statement in *Credit loss expense / (release)*. A corresponding ECL allowance is reported as a decrease in the carrying amount of financial assets measured at amortized cost on the balance sheet. For financial assets that are measured at FVOCI, the carrying amount is not reduced, but an accumulated amount is recognized in *Other comprehensive income*. For off-balance sheet financial instruments and other credit lines, provisions for ECL are presented in *Provisions*.

Default and credit impairment

UBS AG applies a single definition of default for credit risk management purposes, regulatory reporting and ECL, with a counterparty classified as defaulted based on quantitative and qualitative criteria.

- **Refer to "Credit policies for distressed assets" in the "Risk management and control" section of this report for more information**

Measurement of expected credit losses

IFRS 9 ECL reflect an unbiased, probability-weighted estimate based on loss expectations resulting from default events. The method used to calculate ECL applies the following principal factors: probability of default (PD), loss given default (LGD) and exposure at default (EAD). Parameters are generally determined on an individual financial asset level. Based on the materiality of the portfolio, for credit card exposures and personal account overdrafts in Switzerland, a portfolio approach is applied that derives an average PD and LGD for the entire portfolio. PDs and LGDs used in the ECL calculation are point-in-time (PIT)-based for key portfolios and consider both current conditions and expected cyclical changes. For material portfolios, PDs and LGDs are determined for different scenarios, whereas EAD projections are treated as scenario independent.

For the purpose of determining the ECL-relevant parameters, UBS AG leverages its Basel III advanced internal ratings-based (A-IRB) models that are also used in determining expected loss (EL) and risk-weighted assets under the Basel III framework and Pillar 2 stress loss models. Adjustments have been made to these models and IFRS 9-related models have been developed that consider the complexity, structure and risk profile of relevant portfolios and take account of the fact that PDs and LGDs used in the ECL calculation are PIT-based, as opposed to the corresponding Basel III through-the-cycle (TTC) parameters. All models that are relevant for measuring expected credit losses are subject to UBS AG's model validation and oversight processes.

Note 1 Summary of material accounting policies (continued)

Probability of default: PD represents the probability of a default over a specified time period. A 12-month PD represents the probability of default determined for the next 12 months and a lifetime PD represents the probability of default over the remaining lifetime of the instrument. PIT PDs are derived from TTC PDs and scenario forecasts. The modeling is region, industry and client segment specific and considers both macroeconomic scenario dependencies and client-idiosyncratic information.

Exposure at default: EAD represents an estimate of the exposure to credit risk at the time of a potential default occurring, considering expected repayments, interest payments and accruals, discounted at the EIR. Future drawdowns on facilities are considered through a credit conversion factor (a CCF) that is reflective of historical drawdown and default patterns and the characteristics of the respective portfolios.

Loss given default: LGD represents an estimate of the loss at the time of a potential default occurring, taking into account expected future cash flows from collateral and other credit enhancements, or expected payouts from bankruptcy proceedings for unsecured claims and, where applicable, time to realization of collateral and the seniority of claims. LGD is commonly expressed as a percentage of EAD.

Estimation of expected credit losses

Number of scenarios and estimation of scenario weights

Determination of probability-weighted ECL requires evaluating a range of diverse and relevant future economic conditions, especially with a view to modeling the non-linear effect of assumptions about macroeconomic factors on the estimate.

To accommodate this requirement, UBS AG uses different economic scenarios in the ECL calculation. Each scenario is represented by a specific scenario narrative, which is relevant considering the exposure of key portfolios to economic risks, and for which a set of consistent macroeconomic variables is determined. The estimation of the appropriate weights for these scenarios is predominantly judgment-based. The assessment is based on a holistic review of the prevailing economic or political conditions, which may exhibit different levels of uncertainty. It takes into account the impact of changes in the nature and severity of the underlying scenario narratives and the projected economic variables.

The determined weights constitute the probabilities that the respective set of macroeconomic conditions will occur and not that the chosen particular narratives with the related macroeconomic variables will materialize.

Macroeconomic and other factors

The range of macroeconomic, market and other factors that is modeled as part of the scenario determination is wide, and historical information is used to support the identification of the key factors. As the forecast horizon increases, the availability of information decreases, requiring an increase in judgment. For cycle-sensitive PD and LGD determination purposes, UBS AG projects the relevant economic factors for a period of three years before reverting, over a specified period, to cycle-neutral PD and LGD for longer-term projections.

Factors relevant for ECL calculation vary by type of exposure. Regional and client-segment characteristics are generally taken into account, with specific focus on Switzerland and the US, considering UBS AG's key ECL-relevant portfolios.

For UBS AG, the following forward-looking macroeconomic variables represent the most relevant factors for ECL calculation:

- GDP growth rates, given their significant effect on borrowers' performance;
- unemployment rates, given their significant effect on private clients' ability to meet contractual obligations;
- house price indices, given their significant effect on mortgage collateral valuations;
- interest rates, given their significant effect on counterparties' abilities to service debt;
- consumer price indices, given their overall relevance for companies' performance, private clients' purchasing power and economic stability; and
- equity indices, given that they are an important factor in our corporate rating tools.

Scenario generation, review process and governance

A team of economists, which is part of Group Risk Control, develop the forward-looking macroeconomic assumptions with involvement from a broad range of experts.

The scenarios, their weight and the key macroeconomic and other factors are subject to a critical assessment by the IFRS 9 Scenario Sounding Sessions and ECL Management Forum, which include senior management from Group Risk and Group Finance. Important aspects for the review include whether there may be particular credit risk concerns that may not be capable of being addressed systematically and require post-model adjustments for stage allocation and ECL allowance.

The Group Model Governance Committee (the GMGC), as the highest authority under UBS AG's model governance framework, ratifies the decisions

taken by the ECL Management Forum.

- **Refer to Note 19 for more information**

Note 1 Summary of material accounting policies (continued)

ECL measurement period

The period for which lifetime ECL are determined is based on the maximum contractual period that UBS AG is exposed to credit risk, taking into account contractual extension, termination and prepayment options. For irrevocable loan commitments and financial guarantee contracts, the measurement period represents the maximum contractual period for which UBS AG has an obligation to extend credit.

Additionally, some financial instruments include both an on-demand loan and a revocable undrawn commitment, where the contractual cancellation right does not limit UBS AG's exposure to credit risk to the contractual notice period, as the client has the ability to draw down funds before UBS AG can take risk-mitigating actions. In such cases UBS AG is required to estimate the period over which it is exposed to credit risk. This applies to UBS AG's credit card limits, which do not have a defined contractual maturity date, are callable on demand and where the drawn and undrawn components are managed as one exposure. The exposure arising from UBS AG's credit card limits is not significant and is managed at a portfolio level, with credit actions triggered when balances are past due. An ECL measurement period of seven years is applied for credit card limits, capped at 12 months for stage 1 balances, as a proxy for the period that UBS AG is exposed to credit risk.

Customary master credit agreements in the Swiss corporate market also include on-demand loans and revocable undrawn commitments. For smaller commercial facilities, a risk-based monitoring (RbM) approach is in place that highlights negative trends as risk events, at an individual facility level, based on a combination of continuously updated risk indicators. The risk events trigger additional credit reviews by a risk officer, enabling informed credit decisions to be taken. Larger corporate facilities are not subject to RbM, but are reviewed at least annually through a formal credit review. UBS AG has assessed these credit risk management practices and considers both the RbM approach and formal credit reviews as substantive credit reviews resulting in a re-origination of the given facility. Following this, a 12-month measurement period from the reporting date is used for both types of facilities as an appropriate proxy of the period over which UBS AG is exposed to credit risk, with 12 months also used as a look-back period for assessing SICR, always from the respective reporting date.

Significant increase in credit risk

Financial instruments subject to ECL are monitored on an ongoing basis. To determine whether the recognition of a maximum 12-month ECL continues to be appropriate, an assessment is made as to whether an SICR has occurred since initial recognition of the financial instrument, applying both quantitative and qualitative factors.

Primarily, UBS AG assesses changes in an instrument's risk of default on a quantitative basis by comparing the annualized forward-looking and scenario-weighted lifetime PD of an instrument determined at two different dates:

- at the reporting date; and
- at inception of the instrument.

If, based on UBS AG's quantitative modeling, an increase exceeds a set threshold, an SICR is deemed to have occurred and the instrument is transferred to stage 2 with lifetime ECL recognized.

The threshold applied varies depending on the original credit quality of the borrower, with a higher SICR threshold set for those instruments with a low PD at inception. The SICR assessment based on PD changes is made at an individual financial asset level. A high-level overview of the SICR trigger, which is a multiple of the annualized remaining lifetime PIT PD expressed in rating downgrades, is provided in the "SICR thresholds" table below. The actual SICR thresholds applied are defined on a more granular level by interpolating between the values shown in the table.

SICR thresholds

Internal rating at origination of the instrument	Rating downgrades / SICR trigger
0–3	3
4–8	2
9–13	1

- **Refer to the "Risk management and control" section of this report for more details about UBS AG's internal grading system**

Irrespective of the SICR assessment based on default probabilities, credit risk is generally deemed to have significantly increased for an instrument if the contractual payments are more than 30 days past due. For certain less material portfolios, specifically the Swiss credit card portfolio, the 30-day past due criterion is used as the primary indicator of an SICR. Where instruments are transferred to stage 2 due to the 30-day past due criterion, a minimum period of six months is applied before a transfer back to stage 1 can be triggered. For instruments in Personal & Corporate Banking and Global Wealth Management Region Switzerland that are between 90 and 180 days past due but have not been reclassified to stage 3, a one-year period is applied before a transfer back to stage 1 can be triggered.

Note 1 Summary of material accounting policies (continued)

Additionally, based on individual counterparty-specific indicators, external market indicators of credit risk or general economic conditions, counterparties may be moved to a watch list, which is used as a secondary qualitative indicator for an SICR. Exception management is further applied, allowing for individual and collective adjustments on exposures sharing the same credit risk characteristics to take account of specific situations that are not otherwise fully reflected.

In general, the overall SICR determination process does not apply to Lombard loans, securities financing transactions and certain other asset-based lending transactions, because of the risk management practices adopted, including daily monitoring processes with strict margining. If margin calls are not satisfied, a position is closed out and classified as a stage 3 position. In exceptional cases, an individual adjustment and a transfer into stage 2 may be made to take account of specific facts.

Credit risk officers are responsible for the identification of an SICR, which for accounting purposes is in some respects different from internal credit risk management processes. This difference mainly arises because ECL accounting requirements are instrument-specific, such that a borrower can have multiple exposures allocated to different stages, and maturing loans in stage 2 will migrate to stage 1 upon renewal irrespective of the actual credit risk at that time. Under a risk-based approach, a holistic counterparty credit assessment and the absolute level of risk at any given date will determine what risk-mitigating actions may be warranted.

- **Refer to the “Risk management and control” section of this report for more information**

Critical accounting estimates and judgments

The calculation of ECL requires management to apply significant judgment and make estimates and assumptions that can result in significant changes to the timing and amount of ECL recognized.

Determination of a significant increase in credit risk

IFRS 9 does not include a definition of what constitutes an SICR, with UBS AG’s assessment considering qualitative and quantitative criteria. An IFRS 9 ECL Management Forum has been established to review and challenge the SICR results.

Scenarios, scenario weights and macroeconomic variables

ECL reflect an unbiased and probability-weighted amount, which UBS AG determines by evaluating a range of possible outcomes. Management selects forward-looking scenarios that include relevant macroeconomic variables and management’s assumptions around future economic conditions. IFRS 9 Scenario Sounding Sessions, in addition to the IFRS 9 ECL Management Forum, are in place to derive, review and challenge the scenario selection and weights, and to determine whether any additional post-model adjustments are required that may significantly affect ECL.

ECL measurement period

Lifetime ECL are generally determined based upon the contractual maturity of the transaction, which significantly affects ECL. For credit card limits and Swiss callable master credit facilities, judgment is required, as UBS AG must determine the period over which it is exposed to credit risk. A seven-year period is applied for credit card limits, capped at 12 months for stage 1 positions, and a 12-month period applied for master credit facilities.

Modeling and post-model adjustments

A number of complex models have been developed or modified to calculate ECL, with additional post-model adjustments required which may significantly affect ECL. The models are governed by UBS AG’s model validation controls and approved by the GMGC. The post-model adjustments are approved by the ECL Management Forum and endorsed by the GMGC.

A sensitivity analysis covering key macroeconomic variables, scenario weights and SICR trigger points on ECL measurement is provided in Note 19f.

- **Refer to Note 19 for more information**
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h. Restructured and modified financial assets

When payment default is expected, or where default has already occurred, UBS AG may grant concessions to borrowers in financial difficulties that it would not consider in the normal course of its business, such as preferential interest rates, extension of maturity, modifying the schedule of repayments, debt / equity swap, subordination, etc.

- **Refer to the “Risk management and control” section of this report for more information**

Modifications result in an alteration of future contractual cash flows and can occur within UBS AG’s normal risk tolerance or as part of a credit

restructuring where a counterparty is in financial difficulties. The restructuring or modification of a financial asset could lead to a substantial change in the terms and conditions, resulting in the original financial asset being derecognized and a new financial asset being recognized. Where the modification does not result in a derecognition, any difference between the modified contractual cash flows discounted at the original EIR and the existing gross carrying amount of the given financial asset is recognized in the income statement as a modification gain or loss.

i. Offsetting

UBS AG presents financial assets and liabilities on its balance sheet net if (i) it has a legally enforceable right to set off the recognized amounts and (ii) it intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. Netted positions include, for example, certain derivatives and repurchase and reverse repurchase transactions with various counterparties, exchanges and clearing houses.

Note 1 Summary of material accounting policies (continued)

In assessing whether UBS AG intends to either settle on a net basis, or to realize the asset and settle the liability simultaneously, emphasis is placed on the effectiveness of operational settlement mechanics in eliminating substantially all credit and liquidity exposure between the counterparties. This condition precludes offsetting on the balance sheet for substantial amounts of UBS AG's financial assets and liabilities, even though they may be subject to enforceable netting arrangements. Repurchase arrangements and securities financing transactions are presented net only to the extent that the settlement mechanism eliminates, or results in insignificant, credit and liquidity risk, and processes the receivables and payables in a single settlement process or cycle.

- **Refer to Note 21 for more information**

j. Hedge accounting

UBS AG applies hedge accounting requirements of IFRS 9 where the criteria for documentation and hedge effectiveness are met. If a hedge relationship no longer meets the criteria for hedge accounting, hedge accounting is discontinued. Voluntary discontinuation of hedge accounting is not permitted under IFRS 9.

Fair value hedges of interest rate risk related to debt instruments and loan assets

The fair value change of the hedged item attributable to a hedged risk is reflected as an adjustment to the carrying amount of the hedged item and recognized in the income statement along with the change in the fair value of the hedging instrument.

Fair value hedges of FX risk related to debt instruments

The fair value change of the hedged item attributable to the hedged risk is reflected in the measurement of the hedged item and recognized in the income statement along with the change in the fair value of the hedging instrument. The foreign currency basis spread of cross-currency swaps designated as hedging derivatives is excluded from the designation and accounted for as a cost of hedging with amounts deferred in *Other comprehensive income* within *Equity*. These amounts are released to the income statement over the term of the hedged item.

Discontinuation of fair value hedges

Discontinuations for reasons other than derecognition of the hedged item result in an adjustment to the carrying amount, which is amortized to the income statement over the remaining life of the hedged item using the effective interest method. If the hedged item is derecognized, the unamortized fair value adjustment or deferred cost of hedging amount is recognized immediately in the income statement as part of any derecognition gain or loss.

Cash flow hedges of forecast transactions

Fair value gains or losses associated with the effective portion of derivatives designated as cash flow hedges for cash flow repricing risk are recognized initially in *Other comprehensive income* within *Equity* and reclassified to *Interest income from financial instruments measured at amortized cost and fair value through other comprehensive income* or *Interest expense from financial instruments measured at amortized cost* in the periods when the hedged forecast cash flows affect profit or loss, including discontinued hedges for which forecast cash flows are expected to occur. If the forecast transactions are no longer expected to occur, the deferred gains or losses are immediately reclassified to the income statement.

Hedges of net investments in foreign operations

Gains or losses on the hedging instrument relating to the effective portion of a hedge are recognized directly in *Other comprehensive income* within *Equity*, while any gains or losses relating to the ineffective and / or undesignated portion (for example, the interest element of a forward contract) are recognized in the income statement. Upon disposal or partial disposal of the foreign operation, the cumulative value of any such gains or losses recognized in *Equity* associated with the entity is reclassified to *Other income*.

Interest Rate Benchmark Reform

UBS AG continues hedge accounting during the period of uncertainty before existing interest rate benchmarks are replaced with alternative risk-free interest rates. During this period, UBS AG assumes that the current benchmark rates will continue to exist, such that forecast transactions are considered highly probable and hedge relationships remain, with little or no consequential impact on the financial statements. Upon replacement of existing interest rate benchmarks by alternative risk-free interest rates, UBS AG applies the requirements of *Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (Interest Rate Benchmark Reform – Phase 2)*, where applicable.

- **Refer to Note 25 for more information**

3) Fee and commission income and expenses

UBS AG earns fee income from the diverse range of services it provides to its clients. Fee income can be divided into two broad categories: fees earned from services that are provided over a certain period of time, such as management of clients' assets, custody services and certain advisory services; and

fees earned from point-in-time services, such as underwriting fees, deal-contingent merger and acquisitions fees, and brokerage fees (e.g., securities and derivatives execution and clearing). UBS AG recognizes fees earned from PIT services when it has fully provided the service to the client. Where the contract requires services to be provided over time, income is recognized on a systematic basis over the life of the agreement.

Note 1 Summary of material accounting policies (continued)

Consideration received is allocated to the separately identifiable performance obligations in a contract. Owing to the nature of UBS AG's business, contracts that include multiple performance obligations are typically those that are considered to include a series of similar performance obligations fulfilled over time with the same pattern of transfer to the client, e.g., management of client assets and custodial services. As a consequence, UBS AG is not required to apply significant judgment in allocating the consideration received across the various performance obligations.

PIT services are generally for a fixed price or dependent on deal size, e.g., a fixed number of basis points of trade size, where the amount of revenue is known when the performance obligation is met. Fixed-over-time fees are recognized on a straight-line basis over the performance period. Custodial and asset management fees can be variable through reference to the size of the customer portfolio. However, they are generally billed on a monthly or quarterly basis once the customer's portfolio size is known or known with near certainty and therefore also recognized ratably over the performance period. UBS AG does not recognize performance fees related to management of clients' assets or fees related to contingencies beyond UBS AG's control until such uncertainties are resolved.

UBS AG's fees are generally earned from short-term contracts. As a result, UBS AG's contracts do not include a financing component or result in the recognition of significant receivables or prepayment assets. Furthermore, due to the short-term nature of such contracts, UBS AG has not capitalized any material costs to obtain or fulfill a contract or generated any significant contract assets or liabilities.

UBS AG presents expenses primarily in line with their nature in the income statement, differentiating between expenses that are directly attributable to the satisfaction of specific performance obligations associated with the generation of revenues, which are generally presented within *Total revenues and Fee and commission expense*, and those that are related to personnel, general and administrative expenses, which are presented within *Operating expenses*. For derivatives execution and clearing services (where UBS AG acts as an agent), UBS AG only records its specific fees in the income statement, with fees payable to other parties not recognized as an expense but instead directly offset against the associated income collected from the given client.

- **Refer to Note 4 for more information, including the disaggregation of revenues**

4) Share-based and other deferred compensation plans

UBS AG recognizes expenses for deferred compensation awards over the period that the employee is required to provide service to become entitled to the award. Where the service period is shortened, for example in the case of employees affected by restructuring programs or mutually agreed termination provisions, recognition of such expense is accelerated to the termination date. Where no future service is required, such as for employees who are eligible for retirement or who have met certain age and length-of-service criteria, the services are presumed to have been received and compensation expense is recognized over the performance year or, in the case of off-cycle awards, immediately on the grant date.

Share-based compensation plans

UBS Group AG is the grantor of and maintains the obligation to settle share-based compensation plans that are awarded to employees of UBS AG. As a consequence, UBS AG classifies the awards of UBS Group AG shares as equity-settled share-based payment transactions. UBS AG recognizes the fair value of awards granted to its employees by reference to the fair value of UBS Group AG's equity instruments on the date of grant, taking into account the terms and conditions inherent in the award, including, where relevant, dividend rights, transfer restrictions in effect beyond the vesting date, market conditions, and non-vesting conditions.

For equity-settled awards, fair value is not remeasured unless the terms of the award are modified such that there is an incremental increase in value. Expenses are recognized, on a per-tranche basis, over the service period based on an estimate of the number of instruments expected to vest and are adjusted to reflect the actual outcomes of service or performance conditions.

For equity-settled awards, forfeiture events resulting from a breach of a non-vesting condition (i.e., one that does not relate to a service or performance condition) do not result in any adjustment to the share-based compensation expense.

For cash-settled share-based awards, fair value is remeasured at each reporting date, so that the cumulative expense recognized equals the cash distributed.

Other deferred compensation plans

Compensation expense for other deferred compensation plans is recognized on a per-tranche or straight-line basis, depending on the nature of the plan. The amount recognized is measured based on the present value of the amount expected to be paid under the plan and is remeasured at each reporting date, so that the cumulative expense recognized equals the cash or the fair value of respective financial instruments distributed.

- **Refer to Note 27 for more information**

Note 1 Summary of material accounting policies (continued)

5) Post-employment benefit plans

Defined benefit plans

Defined benefit plans specify an amount of benefit that an employee will receive, which usually depends on one or more factors, such as age, years of service and compensation. The defined benefit liability recognized in the balance sheet is the present value of the defined benefit obligation, measured using the projected unit credit method, less the fair value of the plan's assets at the balance sheet date, with changes resulting from remeasurements recorded immediately in *Other comprehensive income*. If the fair value of the plan's assets is higher than the present value of the defined benefit obligation, the recognition of the resulting net asset is limited to the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan. Calculation of the net defined benefit obligation or asset takes into account the specific features of each plan, including risk sharing between employee and employer, and is calculated periodically by independent qualified actuaries.

Critical accounting estimates and judgments

The net defined benefit liability or asset at the balance sheet date and the related personnel expense depend on the expected future benefits to be provided, determined using a number of economic and demographic assumptions. A range of assumptions could be applied, and different assumptions could significantly alter the defined benefit liability or asset and pension expense recognized. The most significant assumptions include life expectancy, discount rate, expected salary increases, pension increases and interest credits on retirement savings account balances. Sensitivity analysis for reasonable possible movements in each significant assumption for UBS AG's post-employment obligations is provided in Note 26.

- **Refer to Note 26 for more information**
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Defined contribution plans

A defined contribution plan pays fixed contributions into a separate entity from which post-employment and other benefits are paid. UBS AG has no legal or constructive obligation to pay further amounts if the plan does not hold sufficient assets to pay employees the benefits relating to employee service in the current and prior periods. Compensation expense is recognized when the employees have rendered services in exchange for contributions. This is generally in the year of contribution. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

6) Income taxes

UBS AG is subject to the income tax laws of Switzerland and those of the non-Swiss jurisdictions in which UBS AG has business operations.

UBS AG's provision for income taxes is composed of current and deferred taxes. Current income taxes represent taxes to be paid or refunded for the current period or previous periods.

Deferred tax assets (DTAs) and deferred tax liabilities (DTLs) are recognized for temporary differences between the carrying amounts and tax bases of assets and liabilities that will result in deductible or taxable amounts, respectively in future periods. DTAs may also arise from other sources, including unused tax losses and unused tax credits. DTAs and DTLs are measured using the applicable tax rates and laws that have been enacted or substantively enacted by the end of the reporting period and that will be in effect when such differences are expected to reverse.

DTAs are recognized only to the extent it is probable that sufficient taxable profits will be available against which these differences can be used. When an entity or tax group has a history of recent losses, DTAs are only recognized to the extent there are sufficient taxable temporary differences or there is convincing other evidence that sufficient taxable profit will be available against which the unused tax losses can be utilized.

Deferred and current tax assets and liabilities are offset when: (i) they arise in the same tax reporting group; (ii) they relate to the same tax authority; (iii) the legal right to offset exists; and (iv) with respect to current taxes they are intended to be settled net or realized simultaneously.

Current and deferred taxes are recognized as income tax benefit or expense in the income statement, except for current and deferred taxes recognized in relation to: (i) the acquisition of a subsidiary (for which such amounts would affect the amount of goodwill arising from the acquisition); (ii) gains and losses on the sale of treasury shares (for which the tax effects are recognized directly in *Equity*); (iii) unrealized gains or losses on financial instruments that are classified at FVOCI; (iv) changes in fair value of derivative instruments designated as cash flow hedges; (v) remeasurements of defined benefit plans; or (vi) certain foreign currency translations of foreign operations. Amounts relating to points (iii) through (vi) above are recognized in *Other comprehensive income* within *Equity*.

UBS AG reflects the potential effect of uncertain tax positions for which acceptance by the relevant tax authority is not considered probable by adjusting current or deferred taxes, as applicable, using either the most likely amount or expected value methods, depending on which method is deemed a better predictor of the basis on which, and extent to which, the uncertainty will be resolved.

Note 1 Summary of material accounting policies (continued)

Critical accounting estimates and judgments

Tax laws are complex, and judgment and interpretations about the application of such laws are required when accounting for income taxes. UBS AG considers the performance of its businesses and the accuracy of historical forecasts and other factors when evaluating the recoverability of its DTAs, including the remaining tax loss carry-forward period, and its assessment of expected future taxable profits in the forecast period used for recognizing DTAs. Estimating future profitability and business plan forecasts is inherently subjective and is particularly sensitive to future economic, market and other conditions.

Forecasts are reviewed annually, but adjustments may be made at other times, if required. If recent losses have been incurred, convincing evidence is required to prove there is sufficient future profitability given that the value of UBS AG's DTAs may be affected, with effects primarily recognized through the income statement.

In addition, judgment is required to assess the expected value of uncertain tax positions and the related probabilities, including interpretation of tax laws, the resolution of any income tax-related appeals and litigation.

- **Refer to Note 8 for more information**
-

7) Property, equipment and software

Property, equipment and software is measured at cost less accumulated depreciation and impairment losses. Software development costs are capitalized only when the costs can be measured reliably and it is probable that future economic benefits will arise. Depreciation of property, equipment and software begins when they are available for use and is calculated on a straight line basis over an asset's estimated useful life.

Property, equipment and software are generally tested for impairment at the appropriate cash-generating unit level, alongside goodwill and intangible assets as described in item 8 in this Note. An impairment charge is recognized for such assets if the recoverable amount is below its carrying amount. The recoverable amounts of such assets, other than property that has a market price, are generally determined using a replacement cost approach that reflects the amount that would be currently required by a market participant to replace the service capacity of the asset. If such assets are no longer used, they are tested individually for impairment.

- **Refer to Note 11 for more information**

8) Goodwill

Goodwill represents the excess of the consideration over the fair value of identifiable assets, liabilities and contingent liabilities acquired that arises in a business combination. Goodwill is not amortized, but is assessed for impairment at the end of each reporting period, or when indicators of impairment exist. UBS AG tests goodwill for impairment annually, irrespective of whether there is any indication of impairment.

An impairment charge is recognized in the income statement if the carrying amount exceeds the recoverable amount of a cash-generating unit.

Critical accounting estimates and judgments

UBS AG's methodology for goodwill impairment testing is based on a model that is most sensitive to the following key assumptions: (i) forecasts of earnings available to shareholders in years one to three; (ii) changes in the discount rates; and (iii) changes in the long-term growth rate.

Earnings available to shareholders are estimated on the basis of forecast results, which are part of the business plan approved by the BoD. The discount rates and growth rates are determined using external information, and also considering inputs from both internal and external analysts and the view of management.

The key assumptions used to determine the recoverable amounts of each cash-generating unit are tested for sensitivity by applying reasonably possible changes to those assumptions.

- **Refer to Notes 2 and 12 for more information**
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9) Provisions and contingent liabilities

Provisions are liabilities of uncertain timing or amount, and are generally recognized in accordance with IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*, when: (i) UBS AG has a present obligation as a result of a past event; (ii) it is probable that an outflow of resources will be required to settle the obligation; and (iii) a reliable estimate of the amount of the obligation can be made.

The majority of UBS AG's provisions relate to litigation, regulatory and similar matters, restructuring, and employee benefits. Restructuring provisions are generally recognized as a consequence of management agreeing to materially change the scope of the business or the manner in which it is

conducted, including changes in management structures. Provisions for employee benefits relate mainly to service anniversaries and sabbatical leave, and are recognized in accordance with measurement principles set out in item 4 in this Note. In addition, UBS AG presents expected credit loss allowances within *Provisions* if they relate to a loan commitment, financial guarantee contract or a revolving revocable credit line.

IAS 37 provisions are measured considering the best estimate of the consideration required to settle the present obligation at the balance sheet date.

Note 1 Summary of material accounting policies (continued)

When conditions required to recognize a provision are not met, a contingent liability is disclosed, unless the likelihood of an outflow of resources is remote. Contingent liabilities are also disclosed for possible obligations that arise from past events, the existence of which will be confirmed only by uncertain future events not wholly within the control of UBS AG.

Critical accounting estimates and judgments

Recognition of provisions often involves significant judgment in assessing the existence of an obligation that results from past events and in estimating the probability, timing and amount of any outflows of resources. This is particularly the case for litigation, regulatory and similar matters, which, due to their nature, are subject to many uncertainties, making their outcome difficult to predict.

The amount of any provision recognized is sensitive to the assumptions used and there could be a wide range of possible outcomes for any particular matter.

Management regularly reviews all the available information regarding such matters, including legal advice, to assess whether the recognition criteria for provisions have been satisfied and to determine the timing and amount of any potential outflows.

- **Refer to Note 17 for more information**
-

10) Foreign currency translation

Transactions denominated in a foreign currency are translated into the functional currency of the reporting entity at the spot exchange rate on the date of the transaction. At the balance sheet date, all monetary assets, including those at FVOCI, and monetary liabilities denominated in foreign currency are translated into the functional currency using the closing exchange rate. Translation differences are reported in *Other net income from financial instruments measured at fair value through profit or loss*.

Non-monetary items measured at historical cost are translated at the exchange rate on the date of the transaction.

Upon consolidation, assets and liabilities of foreign operations are translated into US dollars, UBS AG's presentation currency, at the closing exchange rate on the balance sheet date, and income and expense items and other comprehensive income are translated at the average rate for the period. The resulting foreign currency translation differences are recognized in *Equity* and reclassified to the income statement when UBS AG disposes of, partially or in its entirety, the foreign operation and UBS AG no longer controls the foreign operation.

Share capital issued, share premium and treasury shares held are translated at the historic average rate, with the difference between the historic average rate and the spot rate realized upon repayment of share capital or disposal of treasury shares reported as *Share premium*. Cumulative amounts recognized in *Other comprehensive income* in respect of cash flow hedges and financial assets measured at FVOCI are translated at the closing exchange rate as of the balance sheet dates, with any translation effects adjusted through *Retained earnings*.

- **Refer to Note 32 for more information**

11) Contracts on UBS Group AG shares

Contracts involving UBS Group AG shares that require net cash settlement, or provide the counterparty or UBS AG with a settlement option that includes a choice of settling net in cash, are classified as derivatives held for trading.

Note 1 Summary of material accounting policies (continued)

b) Changes in accounting policies, comparability and other adjustments

Changes to the presentation of the financial statements

During 2022, UBS AG made several changes to simplify the presentation of the income statement alongside other primary financial statements and disclosure notes, and to align them with management information. In particular, *Total operating income* has been renamed *Total revenues* and excludes *Credit loss expense / (release)*, which is now separately presented below *Total revenues*.

Reclassification of a portfolio from *Financial assets measured at fair value through other comprehensive income* to *Other financial assets measured at amortized cost*

Effective from 1 April 2022, UBS AG has reclassified a portfolio of financial assets from *Financial assets measured at fair value through other comprehensive income* with a fair value of USD 6.9bn (the Portfolio) to *Other financial assets measured at amortized cost*, in line with the principles in IFRS 9, *Financial Instruments*, which require a reclassification when an entity changes its business model for managing financial assets.

The Portfolio's cumulative fair value losses of USD 449m pre-tax and USD 333m post-tax, previously recognized in *Other comprehensive income*, have been removed from equity and adjusted against the value of the assets on the reclassification date, so that the Portfolio is measured as if the assets had always been classified at amortized cost, with a value of USD 7.4bn as on 1 April 2022. The reclassification had no effect on the income statement.

The reclassified Portfolio is made up of high-quality liquid assets, primarily US government treasuries and US government agency mortgage-backed securities, held and separately managed by UBS Bank USA (BUSA).

The accounting reclassification has arisen as a direct result of the transformation of UBS AG's Global Wealth Management Americas business, which has significantly impacted BUSA. This includes initiatives approved by the Group Executive Board to significantly grow and extend the business, as disclosed on 1 February 2022 during UBS's fourth quarter 2021 earnings presentation. Over the two years preceding the reclassification date, BUSA's deposit base grew by more than 100% generating substantial cash balances, with a number of new products being launched, including new deposit types that are longer in duration, additional lending and a broader range of customer segments targeted.

Following the commencement of these activities and the announcement made in the first quarter of 2022, the Portfolio is no longer held in a business model to collect the contractual cash flows and sell the assets, but is instead solely held to collect the contractual cash flows until the assets mature, requiring a reclassification of the Portfolio in line with IFRS 9 with effect from 1 April 2022.

The fair value of the Portfolio as on 31 December 2022 was USD 5.8bn. A pre-tax fair value loss of USD 981m would have been recognized in *Other comprehensive income* during 2022 if the Portfolio had not been reclassified.

- **Refer to the Statement of changes in equity and Note 20 for more information about the effects from the reclassification of the Portfolio**

Accounting for obligations to safeguard crypto-assets an entity holds for platform users (SAB 121)

In March 2022, the US Security and Exchange Commission (the SEC) issued Staff Accounting Bulletin (SAB) 121, "Accounting for obligations to safeguard crypto-assets an entity holds for platform users." SAB 121 adds interpretive guidance requiring SEC registrants, including foreign private issuers that apply IFRS, to recognize a liability on their balance sheets to reflect the obligation to safeguard any digital asset that is issued or transferred using distributed ledger or blockchain technology and held for their platform users, along with a corresponding asset. The guidance is effective for UBS AG for annual reporting from 2022 onwards. Amounts that would be recognized as liabilities, with corresponding assets, under this guidance are not material to UBS AG.

c) International Financial Reporting Standards and Interpretations to be adopted in 2023 and later and other changes

IFRS 17, *Insurance Contracts*

In May 2017, the IASB issued IFRS 17, *Insurance Contracts*, which sets out the accounting requirements for contractual rights and obligations that arise from insurance contracts issued and reinsurance contracts held. IFRS 17 is effective from 1 January 2023. Adoption on 1 January 2023 will have no effect on UBS AG's financial statements. UBS AG does not provide insurance services in any market.

Other amendments to IFRS

The IASB has issued a number of minor amendments to IFRS, effective from 1 January 2023 and in later years. These amendments are not expected to have a significant effect on UBS AG when they are adopted.

Note 2a Segment reporting

UBS AG's businesses are organized globally into four business divisions: Global Wealth Management, Personal & Corporate Banking, Asset Management and the Investment Bank. All four business divisions are supported by Group Functions and qualify as reportable segments for the purpose of segment reporting. Together with Group Functions, the four business divisions reflect the management structure of UBS AG.

- **Global Wealth Management** provides financial services, advice and solutions to private wealth clients. Its offering ranges from investment management to estate planning and corporate finance advice, in addition to specific wealth management and banking products and services.
- **Personal & Corporate Banking** serves its private, corporate, and institutional clients' needs, from banking to retirement, financing, investments and strategic transactions, in Switzerland, through its branch network and digital channels.
- **Asset Management** is a global, large-scale and diversified asset manager. It offers investment capabilities and styles across all major traditional and alternative asset classes, as well as advisory support to institutions, wholesale intermediaries and wealth management clients.
- The **Investment Bank** provides a range of services to institutional, corporate and wealth management clients globally, to help them raise capital, grow their businesses, invest and manage risks. Its offering includes research, advisory services, facilitating clients raising debt and equity from the public and private markets and capital markets, cash and derivatives trading across equities and fixed income, and financing.
- **Group Functions** is made up of the following major areas: Group Services (which consists of Chief Digital and Information Office, Communications & Branding, Compliance, Finance, Group Sustainability and Impact, Human Resources, Group Legal, Regulatory & Governance, and Risk Control), Group Treasury and Non-core and Legacy Portfolio.

Financial information about the four business divisions and Group Functions is presented separately in internal management reports to the Executive Board, which is considered the "chief operating decision maker" pursuant to IFRS 8, *Operating Segments*.

UBS AG's internal accounting policies, which include management accounting policies and service level agreements, determine the revenues and expenses directly attributable to each reportable segment. Transactions between the reportable segments are carried out at internally agreed rates and are reflected in the operating results of the reportable segments. Revenue-sharing agreements are used to allocate external client revenues to reportable segments where several reportable segments are involved in the value creation chain. Total intersegment revenues for UBS AG are immaterial, as the majority of the revenues are allocated across the segments by means of revenue-sharing agreements. Interest income earned from managing UBS AG's consolidated equity is allocated to the reportable segments based on average attributed equity and currency composition. Assets and liabilities of the reportable segments are funded through and invested with Group Functions, and the net interest margin is reflected in the results of each reportable segment.

Segment assets are based on a third-party view and do not include intercompany balances. This view is in line with internal reporting to management. If one operating segment is involved in an external transaction together with another operating segment or Group Functions, additional criteria are considered to determine the segment that will report the associated assets. This will include a consideration of which segment's business needs are being addressed by the transaction and which segment is providing the funding and / or resources. Allocation of liabilities follows the same principles.

Non-current assets disclosed for segment reporting purposes represent assets that are expected to be recovered more than 12 months after the reporting date, excluding financial instruments, deferred tax assets and post-employment benefits.

Note 2a Segment reporting (continued)

<i>USD m</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	UBS AG
For the year ended 31 December 2022						
Net interest income	5,274	2,192	(19)	(241)	(688)	6,517
Non-interest income	13,689	2,113	2,980 ¹	8,958	659	28,398
Total revenues	18,963	4,304	2,961	8,717	(30)	34,915
Credit loss expense / (release)	0	39	0	(12)	3	29
Operating expenses	14,069	2,475	1,565	6,890	928	25,927
Operating profit / (loss) before tax	4,894	1,790	1,396	1,839	(960)	8,960
Tax expense / (benefit)						1,844
Net profit / (loss)						7,116
Additional information						
Total assets	388,624	235,330	16,971	391,495	73,016	1,105,436
Additions to non-current assets	42	13	1	33	1,773	1,862
<i>USD m</i>						
For the year ended 31 December 2021						
Net interest income	4,244	2,120	(15)	481	(226)	6,605
Non-interest income	15,175	2,144	2,632	8,978	294	29,222
Total revenues	19,419	4,264	2,617	9,459	68	35,828
Credit loss expense / (release)	(29)	(86)	1	(34)	0	(148)
Operating expenses	14,743	2,623	1,593	6,902	1,151	27,012
Operating profit / (loss) before tax	4,706	1,726	1,023	2,592	(1,083)	8,964
Tax expense / (benefit)						1,903
Net profit / (loss)						7,061
Additional information						
Total assets ²	395,235	225,425	25,202	346,641	123,641	1,116,145
Additions to non-current assets	56	16	1	30	1,689	1,791
<i>USD m</i>						
For the year ended 31 December 2020						
Net interest income	4,027	2,049	(17)	284	(555)	5,788
Non-interest income ³	13,107	1,859	2,993	9,224	504	27,686
Total revenues	17,134	3,908	2,975	9,508	(52)	33,474
Credit loss expense / (release)	88	257	2	305	42	695
Operating expenses	13,080	2,390	1,520	6,762	1,329	25,081
Operating profit / (loss) before tax	3,965	1,261	1,454	2,441	(1,423)	7,699
Tax expense / (benefit)						1,488
Net profit / (loss)						6,211
Additional information						
Total assets	367,714	231,710	28,266	369,778	127,858	1,125,327
Additions to non-current assets	5	12	385	150	1,971	2,524

1 Includes an USD 848m gain in Asset Management related to the sale of UBS AG's shareholding in Mitsubishi Corp.-UBS Realty Inc.

2 During 2022, UBS AG refined the methodology applied to allocate balance sheet resources from Group Functions to the business divisions, with prospective effect. If the new methodology had been applied as of 31 December 2021, balance sheet assets allocated to business divisions would have been USD 26bn higher, of which USD 14bn related to the Investment Bank.

3 Includes a USD 631m net gain on the sale of a majority stake in Fondcenter AG (now Clearstream Fund Centre AG), of which USD 571m was recognized in Asset Management and USD 60m was recognized in Global Wealth Management.

Note 2b Segment reporting by geographic location

The operating regions shown in the table below correspond to the regional management structure of UBS AG. The allocation of total revenues to these regions reflects, and is consistent with, the basis on which the business is managed and its performance is evaluated. These allocations involve assumptions and judgments that management considers to be reasonable, and may be refined to reflect changes in estimates or management structure. The main principles of the allocation methodology are that client revenues are attributed to the domicile of the given client and trading and portfolio management revenues are attributed to the country where the risk is managed. This revenue attribution is consistent with the mandate of the regional Presidents. Certain revenues, such as those related to Non-core and Legacy Portfolio in Group Functions, are managed at a Group level. These revenues are included in the *Global* line.

The geographic analysis of non-current assets is based on the location of the entity in which the given assets are recorded.

For the year ended 31 December 2022

	Total revenues ¹		Total non-current assets	
	USD bn	Share %	USD bn	Share %
Americas ²	13.8	40	9.0	48
Asia Pacific	5.6	16	1.5	8
Europe, Middle East and Africa (excluding Switzerland)	7.0	20	2.6	14
Switzerland	7.7	22	5.6	30
Global	0.8	2	0.0	0
Total	34.9	100	18.7	100

For the year ended 31 December 2021

	Total revenues ¹		Total non-current assets	
	USD bn	Share %	USD bn	Share %
Americas ²	14.5	40	9.0	47
Asia Pacific	6.5	18	1.4	7
Europe, Middle East and Africa (excluding Switzerland)	7.0	20	2.6	13
Switzerland	7.8	22	6.3	33
Global	0.1	0	0.0	0
Total	35.8	100	19.3	100

For the year ended 31 December 2020

	Total revenues ¹		Total non-current assets	
	USD bn	Share %	USD bn	Share %
Americas ²	13.2	39	9.0	45
Asia Pacific	6.1	18	1.4	7
Europe, Middle East and Africa (excluding Switzerland)	6.5	20	2.7	14
Switzerland	7.1	21	6.9	34
Global	0.5	2	0.0	0
Total	33.5	100	20.0	100

1 During 2022, UBS AG changed the presentation of its Income statement. Total operating income was renamed Total revenues and excludes Credit loss expense / (release). Note 2b, including prior-period information, has been updated to reflect the new presentation structure, with the disclosure of Total revenues instead of Total operating income. Refer to Note 1b for more information.

2 Predominantly related to the USA.

Income statement notes

Note 3 Net interest income and other net income from financial instruments measured at fair value through profit or loss

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Net interest income from financial instruments measured at fair value through profit or loss and other	1,410	1,437	1,305
Other net income from financial instruments measured at fair value through profit or loss	7,493	5,844	6,930
<i>of which: net gains / (losses) from financial liabilities designated at fair value¹</i>	<i>17,036</i>	<i>(6,457)</i>	<i>1,625</i>
Total net income from financial instruments measured at fair value through profit or loss and other	8,903	7,281	8,235
Net interest income			
Interest income from loans and deposits ²	9,634	6,489	6,696
Interest income from securities financing transactions measured at amortized cost ³	1,378	513	862
Interest income from other financial instruments measured at amortized cost	545	284	335
Interest income from debt instruments measured at fair value through other comprehensive income	74	115	101
Interest income from derivative instruments designated as cash flow hedges	173	1,133	822
Total interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	11,803	8,534	8,816
Interest expense on loans and deposits ⁴	4,488	1,655	2,440
Interest expense on securities financing transactions measured at amortized cost ⁵	1,089	1,102	870
Interest expense on debt issued	1,031	512	918
Interest expense on lease liabilities	88	98	105
Total interest expense from financial instruments measured at amortized cost	6,696	3,366	4,333
Total net interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	5,108	5,168	4,483
Total net interest income from financial instruments measured at fair value through profit or loss and other	1,410	1,437	1,305
Total net interest income	6,517	6,605	5,788

- 1 Excludes fair value changes of hedges related to financial liabilities designated at fair value and foreign currency translation effects arising from translating foreign currency transactions into the respective functional currency, both of which are reported within Other net income from financial instruments measured at fair value through profit or loss. 2022 included net gains of USD 4,112m (net losses of USD 2,068m and USD 72m in 2021 and 2020, respectively), driven by financial liabilities related to unit-linked investment contracts, which are designated at fair value through profit or loss. This was offset by net losses of USD 4,112m (net gains of USD 2,068m and USD 72m in 2021 and 2020, respectively), related to financial assets for unit-linked investment contracts that are mandatorily measured at fair value through profit or loss not held for trading.
- 2 Consists of interest income from cash and balances at central banks, loans and advances to banks and customers, and cash collateral receivables on derivative instruments, as well as negative interest on amounts due to banks, customer deposits, and cash collateral payables on derivative instruments.
- 3 Includes negative interest, including fees, on payables from securities financing transactions measured at amortized cost.
- 4 Consists of interest expense on amounts due to banks, cash collateral payables on derivative instruments, customer deposits, and funding from UBS Group AG measured at amortized cost, as well as negative interest on cash and balances at central banks, loans and advances to banks, and cash collateral receivables on derivative instruments.
- 5 Includes negative interest, including fees, on receivables from securities financing transactions measured at amortized cost.

Note 4 Net fee and commission income

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Underwriting fees	633	1,512	1,104
M&A and corporate finance fees	804	1,102	736
Brokerage fees	3,487	4,383	4,132
Investment fund fees	4,942	5,790	5,289
Portfolio management and related services	9,059	9,762	8,009
Other	1,921	1,874	1,712
Total fee and commission income¹	20,846	24,422	20,982
<i>of which: recurring</i>	<i>14,229</i>	<i>15,410</i>	<i>13,010</i>
<i>of which: transaction-based</i>	<i>6,550</i>	<i>8,743</i>	<i>7,512</i>
<i>of which: performance-based</i>	<i>68</i>	<i>269</i>	<i>461</i>

Fee and commission expense	1,823	1,985	1,775
Net fee and commission income	<u>19,023</u>	<u>22,438</u>	<u>19,207</u>

- 1 For the year ended 31 December 2022, reflects third-party fee and commission income of USD 12,990m for Global Wealth Management, USD 1,657m for Personal & Corporate Banking, USD 2,840m for Asset Management, USD 3,350m for the Investment Bank and USD 10m for Group Functions (for the year ended 31 December 2021: USD 14,545m for Global Wealth Management, USD 1,645m for Personal & Corporate Banking, USD 3,337m for Asset Management, USD 4,863m for the Investment Bank and USD 33m for Group Functions; for the year ended 31 December 2020: USD 12,475m for Global Wealth Management, USD 1,427m for Personal & Corporate Banking, USD 3,129m for Asset Management, USD 3,901m for the Investment Bank and USD 50m for Group Functions).

Note 5 Other income

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Associates, joint ventures and subsidiaries			
Net gains / (losses) from acquisitions and disposals of subsidiaries ¹	148	(11)	635 ²
Net gains / (losses) from disposals of investments in associates and joint ventures	844 ³	41	0
Share of net profits of associates and joint ventures	32	105	84
Total	1,024	134	719
Net gains / (losses) from disposals of financial assets measured at fair value through other comprehensive income	(1)	9	40
Income from properties ⁴	20	22	25
Net gains / (losses) from properties held for sale	71	100 ⁵	76 ⁶
Income from shared services provided to UBS Group AG or its subsidiaries	460	451	422
Other	308 ⁷	224 ⁸	267 ⁹
Total other income	1,882	941	1,549

- 1 Includes foreign exchange gains / (losses) reclassified from other comprehensive income related to the disposal or closure of foreign operations. Refer to Note 29 for more information about UBS AG's acquisitions and disposals of subsidiaries and businesses.
- 2 Includes a USD 631m net gain on the sale of a majority stake in Fondcenter AG (now Clearstream Fund Centre AG).
- 3 Includes an USD 848m gain related to the sale of UBS AG's shareholding in Mitsubishi Corp.-UBS Realty Inc. Refer to Note 28b for more information.
- 4 Includes rent received from third parties.
- 5 Mainly relates to the sale of a property in Basel.
- 6 Includes net gains of USD 140m arising from sale-and-leaseback transactions, primarily related to a property in Geneva, partly offset by remeasurement losses relating to properties that were reclassified as held for sale.
- 7 Mainly relates to a portion of the total USD 133m gain on the sale of UBS AG's domestic wealth management business in Spain of USD 111m (with the remaining amount disclosed within Net gains / (losses) from acquisitions and disposals of subsidiaries), income of USD 111m related to a legacy litigation settlement and a legacy bankruptcy claim, as well as gains of USD 23m related to the repurchase of UBS's own debt instruments (compared with losses of USD 17m in 2021).
- 8 Includes a gain of USD 100m from the sale of UBS AG's domestic wealth management business in Austria.
- 9 Includes a USD 215m gain on the sale of intellectual property rights associated with the Bloomberg Commodity Index family.

Note 6 Personnel expenses

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Salaries ¹	5,528	5,723	5,535
Variable compensation ²	7,636	7,973	7,246
<i>of which: performance awards</i>	2,910	2,916	2,953 ³
<i>of which: financial advisors⁴</i>	4,508	4,860	4,091
<i>of which: other</i>	217	196	201
Contractors	119	142	138
Social security	730	762	704 ³
Post-employment benefit plans ⁵	555	582	597
<i>of which: defined benefit plans</i>	256	280	306
<i>of which: defined contribution plans</i>	299	303	291
Other personnel expenses	513	479	466 ³
Total personnel expenses	15,080	15,661	14,686

- 1 Includes role-based allowances.
- 2 Refer to Note 27 for more information.
- 3 During 2020, UBS AG modified the conditions for continued vesting of certain outstanding deferred compensation awards for qualifying employees, resulting in an expense of approximately USD 270m, of which USD 240m is disclosed within Variable compensation – performance awards, USD 20m within Social security and USD 10m within Other personnel expenses.
- 4 Consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.
- 5 Refer to Note 26 for more information. Includes curtailment gains of USD 13m for the year ended 31 December 2022 (for the year ended 31 December 2021: USD 49m; for the year ended 31 December 2020: USD 0m), which represent a reduction in the defined benefit obligation related to the Swiss pension plan resulting from a decrease in headcount following restructuring activities.

Note 7 General and administrative expenses

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Outsourcing costs	451	426	466
Technology costs	502	490	449
Consulting, legal and audit fees	494	465	566
Real estate and logistics costs	507	530	563
Market data services	367	367	361
Marketing and communication	195	171	162
Travel and entertainment	156	66	77
Litigation, regulatory and similar matters ¹	348	910	197
Other	5,981	6,051	5,646
<i>of which: shared services costs charged by UBS Group AG or its subsidiaries</i>	5,264	5,321	4,939
Total general and administrative expenses	9,001	9,476	8,486

1 Reflects the net increase in provisions for litigation, regulatory and similar matters recognized in the income statement. Refer to Note 17 for more information.

Note 8 Income taxes

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Tax expense / (benefit)			
Swiss			
Current	664	614	417
Deferred	(22)	26	107
Total Swiss	642	640	524
Non-Swiss			
Current	689	857	715
Deferred	513	406	248
Total non-Swiss	1,202	1,263	963
Total income tax expense / (benefit) recognized in the income statement	1,844	1,903	1,488

Income tax recognized in the income statement

The Swiss current tax expenses related to taxable profits of UBS Switzerland AG and other Swiss entities.

The non-Swiss current tax expenses related to taxable profits of non-Swiss subsidiaries and branches. The non-Swiss deferred tax expenses include expenses of USD 678m that primarily related to the amortization of deferred tax assets (DTAs) previously recognized in relation to tax losses carried forward and deductible temporary differences of UBS Americas Inc., which were partly offset by a benefit of USD 169m in respect of net upward revaluations of DTAs for certain entities, primarily in connection with our business planning process.

The effective tax rate for the year of 20.6% is lower than our projected rate for the year of 24%, primarily as a result of the aforementioned deferred tax benefit of USD 169m in respect of net upward revaluations of DTAs and because no tax expenses were recognized in respect of pre-tax gains from dispositions of UBS subsidiaries in 2022.

- **Refer to Note 29 for more information about disposals of subsidiaries**

<i>USD m</i>	For the year ended		
	31.12.22	31.12.21	31.12.20
Operating profit / (loss) before tax	8,960	8,964	7,699
of which: Swiss	4,052	2,983	3,042
of which: non-Swiss	4,907	5,981	4,657
Income taxes at Swiss tax rate of 18% for 2022, 18.5% for 2021 and 19.5% for 2020	1,613	1,658	1,501
Increase / (decrease) resulting from:			
Non-Swiss tax rates differing from Swiss tax rate	267	217	96
Tax effects of losses not recognized	74	124	144
Previously unrecognized tax losses now utilized	(217)	(179)	(212)
Non-taxable and lower-taxed income	(316)	(252)	(381)
Non-deductible expenses and additional taxable income	414	487	373
Adjustments related to prior years, current tax	(33)	(38)	(66)
Adjustments related to prior years, deferred tax	19	(3)	18
Change in deferred tax recognition	(217)	(341)	(383)
Adjustments to deferred tax balances arising from changes in tax rates	0	(1)	235
Other items	240	230	163
Income tax expense / (benefit)	1,844	1,903	1,488

Note 8 Income taxes (continued)

The components of operating profit before tax, and the differences between income tax expense reflected in the financial statements and the amounts calculated at the Swiss tax rate, are provided in the table above and explained below.

<u>Component</u>	<u>Description</u>
Non-Swiss tax rates differing from the Swiss tax rate	To the extent that UBS AG profits or losses arise outside Switzerland, the applicable local tax rate may differ from the Swiss tax rate. This item reflects, for such profits, an adjustment from the tax expense that would arise at the Swiss tax rate to the tax expense that would arise at the applicable local tax rate. Similarly, it reflects, for such losses, an adjustment from the tax benefit that would arise at the Swiss tax rate to the tax benefit that would arise at the applicable local tax rate.
Tax effects of losses not recognized	This item relates to tax losses of entities arising in the year that are not recognized as DTAs and where no tax benefit arises in relation to those losses. Therefore, the tax benefit calculated by applying the local tax rate to those losses as described above is reversed.
Previously unrecognized tax losses now utilized	This item relates to taxable profits of the year that are offset by tax losses of previous years for which no DTAs were previously recorded. Consequently, no current tax or deferred tax expense arises in relation to those taxable profits and the tax expense calculated by applying the local tax rate on those profits is reversed.
Non-taxable and lower-taxed income	This item relates to tax deductions for the year in respect of permanent differences. These include deductions in respect of profits that are either not taxable or are taxable at a lower rate of tax than the local tax rate. They also include deductions made for tax purposes, which are not reflected in the accounts.
Non-deductible expenses and additional taxable income	This item relates to additional taxable income for the year in respect of permanent differences. These include income that is recognized for tax purposes by an entity but is not included in its profit that is reported in the financial statements, as well as expenses for the year that are non-deductible (e.g., client entertainment costs are not deductible in certain locations).
Adjustments related to prior years, current tax	This item relates to adjustments to current tax expense for prior years (e.g., if the tax payable for a year is agreed with the tax authorities in an amount that differs from the amount previously reflected in the financial statements).
Adjustments related to prior years, deferred tax	This item relates to adjustments to deferred tax positions recognized in prior years (e.g., if a tax loss for a year is fully recognized and the amount of the tax loss agreed with the tax authorities is expected to differ from the amount previously recognized as DTAs in the accounts).
Change in deferred tax recognition	This item relates to changes in DTAs, including changes in DTAs previously recognized resulting from reassessments of expected future taxable profits. It also includes changes in temporary differences in the year, for which deferred tax is not recognized.
Adjustments to deferred tax balances arising from changes in tax rates	This item relates to remeasurements of DTAs and liabilities recognized due to changes in tax rates. These have the effect of changing the future tax saving that is expected from tax losses or deductible tax differences and therefore the amount of DTAs recognized or, alternatively, changing the tax cost of additional taxable income from taxable temporary differences and therefore the deferred tax liability.
Other items	Other items include other differences between profits or losses at the local tax rate and the actual local tax expense or benefit, including movements in provisions for uncertain positions in relation to the current year and other items.

Income tax recognized directly in equity

A net tax benefit of USD 1,095m was recognized in *Other comprehensive income* (2021: net benefit of USD 455m) and a net tax benefit of USD 5m was recognized in *Share premium* (2021: net expense of USD 102m).

Note 8 Income taxes (continued)

Deferred tax assets and liabilities

UBS AG has gross DTAs, valuation allowances and recognized DTAs related to tax loss carry-forwards and deductible temporary differences, as well as deferred tax liabilities in respect of taxable temporary differences, as shown in the table below. The valuation allowances reflect DTAs that were not recognized because, as of the last remeasurement period, management did not consider it probable that there would be sufficient future taxable profits available to utilize the related tax loss carry-forwards and deductible temporary differences.

The recognition of DTAs is supported by forecasts of taxable profits for the entities concerned. In addition, tax planning opportunities are available that would result in additional future taxable income and these would be utilized, if necessary.

Deferred tax liabilities are recognized in respect of investments in subsidiaries, branches and associates, and interests in joint arrangements, except to the extent that UBS AG can control the timing of the reversal of the associated taxable temporary difference and it is probable that such will not reverse in the foreseeable future. However, as of 31 December 2022, this exception was not considered to apply to any taxable temporary differences.

<i>USD m</i>	31.12.22			31.12.21		
	Gross	Valuation allowance	Recognized	Gross	Valuation allowance	Recognized
Deferred tax assets¹						
Tax loss carry-forwards	12,708	(8,720)	3,988	13,636	(9,193)	4,443
Temporary differences	5,774	(408)	5,365	5,092	(696)	4,396
<i>of which: related to real estate costs capitalized for US tax purposes</i>	2,485	0	2,485	2,272	0	2,272
<i>of which: related to compensation and benefits</i>	1,169	(175)	993	1,200	(209)	991
<i>of which: related to cash flow hedges</i>	947	0	947	3	0	3
<i>of which: other</i>	1,173	(233)	940	1,620	(487)	1,133
Total deferred tax assets	18,482	(9,128)	9,354²	18,728	(9,889)	8,839²
<i>of which: related to the US</i>			8,294			8,521
<i>of which: related to other locations</i>			1,060			318
Deferred tax liabilities						
Cash flow hedges			0			118
Other			233			179
Total deferred tax liabilities			233			297

1 After offset of DTLs, as applicable. 2 As of 31 December 2022, UBS AG recognized DTAs of USD 471m (31 December 2021: USD 77m) in respect of entities that incurred losses in either the current or preceding year.

In general, US federal tax losses incurred prior to 31 December 2017 can be carried forward for 20 years. US federal tax losses incurred after that date can be carried forward indefinitely, although the utilization of such losses is limited to 80% of the entity's future year taxable profits. UK tax losses can also be carried forward indefinitely; they can shelter up to either 25% or 50% of future year taxable profits, depending on when the tax losses arose. The amounts of US tax loss carry-forwards that are included in the table below are based on their amount for federal tax purposes rather than for state and local tax purposes.

Unrecognized tax loss carry-forwards	31.12.22	31.12.21
<i>USD m</i>		
Within 1 year	231	141
From 2 to 5 years	2,184	1,026
From 6 to 10 years	11,106	13,283
From 11 to 20 years	1,610	2,093
No expiry	16,960	18,147
Total	32,091	34,690
<i>of which: related to the US¹</i>	13,350	14,870
<i>of which: related to the UK</i>	14,332	14,909
<i>of which: related to other locations</i>	4,409	4,911

1 Related to UBS AG's US branch.

Balance sheet notes

Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement

The tables below provide information about financial instruments and certain credit lines that are subject to expected credit loss (ECL) requirements. UBS AG's ECL disclosure segments, or "ECL segments" are aggregated portfolios based on shared risk characteristics and on the same or similar rating methods applied. The key segments are presented in the table below.

- Refer to Note 19 for more information about expected credit loss measurement

<u>Segment</u>	<u>Segment description</u>	<u>Description of credit risk sensitivity</u>	<u>Business division</u>
Private clients with mortgages	Lending to private clients secured by owner-occupied real estate and personal account overdrafts of those clients	Sensitive to the interest rate environment, unemployment levels, real estate collateral values and other regional aspects	<ul style="list-style-type: none"> • Personal & Corporate Banking • Global Wealth Management
Real estate financing	Rental or income-producing real estate financing to private and corporate clients secured by real estate	Sensitive to unemployment levels, the interest rate environment, real estate collateral values and other regional aspects	<ul style="list-style-type: none"> • Personal & Corporate Banking • Global Wealth Management • Investment Bank
Large corporate clients	Lending to large corporate and multinational clients	Sensitive to GDP developments, unemployment levels, seasonality, business cycles and collateral values (diverse collateral, including real estate and other collateral types)	<ul style="list-style-type: none"> • Personal & Corporate Banking • Investment Bank
SME clients	Lending to small and medium-sized corporate clients	Sensitive to GDP developments, unemployment levels, the interest rate environment and, to some extent, seasonality, business cycles and collateral values (diverse collateral, including real estate and other collateral types)	<ul style="list-style-type: none"> • Personal & Corporate Banking
Lombard	Loans secured by pledges of marketable securities, guarantees and other forms of collateral (including concentration in hedge funds, private equity and unlisted equities), as well as unsecured recourse Lending	Sensitive to equity and debt markets (e.g., changes in collateral values)	<ul style="list-style-type: none"> • Global Wealth Management
Credit cards	Credit card solutions in Switzerland and the US	Sensitive to unemployment levels	<ul style="list-style-type: none"> • Personal & Corporate Banking • Global Wealth Management
Commodity trade finance	Working capital financing of commodity traders, generally extended on a self-liquidating transactional basis	Sensitive primarily to the strength of individual transaction structures and collateral values (price volatility of commodities), as the primary source for debt service is directly linked to the shipments financed	<ul style="list-style-type: none"> • Personal & Corporate Banking
Financial intermediaries and hedge funds	Lending to financial institutions and pension funds, including exposures to broker-dealers and clearing houses	Sensitive to GDP development, the interest rate environment, price and volatility risks in financial markets, and regulatory and political risk	<ul style="list-style-type: none"> • Personal & Corporate Banking • Investment Bank

- Refer to Note 19f for more details regarding sensitivity

Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement (continued)

The tables below provide ECL exposure and ECL allowance and provision information about financial instruments and certain non-financial instruments that are subject to ECLs.

	31.12.22								
	Carrying amount ¹				ECL allowances				
Financial instruments measured at amortized cost	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	
Cash and balances at central banks	169,445	169,402	44	0	(12)	0	(12)	0	
Loans and advances to banks	14,671	14,670	1	0	(6)	(5)	(1)	0	
Receivables from securities financing transactions measured at amortized cost	67,814	67,814	0	0	(2)	(2)	0	0	
Cash collateral receivables on derivative instruments	35,033	35,033	0	0	0	0	0	0	
Loans and advances to customers	390,027	372,903	15,587	1,538	(783)	(129)	(180)	(474)	
<i>of which: Private clients with mortgages</i>	156,930	147,651	8,579	699	(161)	(27)	(107)	(28)	
<i>of which: Real estate financing</i>	46,470	43,112	3,349	9	(41)	(17)	(23)	0	
<i>of which: Large corporate clients</i>	12,226	10,733	1,189	303	(130)	(24)	(14)	(92)	
<i>of which: SME clients</i>	13,903	12,211	1,342	351	(251)	(26)	(22)	(203)	
<i>of which: Lombard</i>	132,287	132,196	0	91	(26)	(9)	0	(17)	
<i>of which: Credit cards</i>	1,834	1,420	382	31	(36)	(7)	(10)	(19)	
<i>of which: Commodity trade finance</i>	3,272	3,261	0	11	(96)	(6)	0	(90)	
Other financial assets measured at amortized cost	53,389	52,829	413	147	(86)	(17)	(6)	(63)	
<i>of which: Loans to financial advisors</i>	2,611	2,357	128	126	(59)	(7)	(2)	(51)	
Total financial assets measured at amortized cost	730,379	712,651	16,044	1,685	(890)	(154)	(199)	(537)	
Financial assets measured at fair value through other comprehensive income	2,239	2,239	0	0	0	0	0	0	
Total on-balance sheet financial assets within the scope of ECL requirements	732,618	714,889	16,044	1,685	(890)	(154)	(199)	(537)	
		Total exposure				ECL provisions			
Off-balance sheet (within the scope of ECL)	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	
Guarantees	22,167	19,805	2,254	108	(48)	(13)	(9)	(26)	
<i>of which: Large corporate clients</i>	3,663	2,883	721	58	(26)	(2)	(3)	(21)	
<i>of which: SME clients</i>	1,337	1,124	164	49	(5)	(1)	(1)	(3)	
<i>of which: Financial intermediaries and hedge funds</i>	11,833	10,513	1,320	0	(12)	(8)	(4)	0	
<i>of which: Lombard</i>	2,376	2,376	0	1	(1)	0	0	(1)	
<i>of which: Commodity trade finance</i>	2,121	2,121	0	0	(1)	(1)	0	0	
Irrevocable loan commitments	39,996	37,531	2,341	124	(111)	(59)	(52)	0	
<i>of which: Large corporate clients</i>	23,611	21,488	2,024	99	(93)	(49)	(45)	0	
Forward starting reverse repurchase and securities borrowing agreements	3,801	3,801	0	0	0	0	0	0	
Committed unconditionally revocable credit lines	43,677	41,809	1,833	36	(40)	(32)	(8)	0	
<i>of which: Real estate financing</i>	8,711	8,528	183	0	(6)	(6)	0	0	
<i>of which: Large corporate clients</i>	4,578	4,304	268	5	(4)	(1)	(2)	0	
<i>of which: SME clients</i>	4,723	4,442	256	26	(19)	(16)	(3)	0	
<i>of which: Lombard</i>	7,855	7,854	0	1	0	0	0	0	
<i>of which: Credit cards</i>	9,390	8,900	487	3	(7)	(5)	(2)	0	
<i>of which: Commodity trade finance</i>	327	327	0	0	0	0	0	0	
Irrevocable committed prolongation of existing loans	4,696	4,600	94	2	(2)	(2)	0	0	
Total off-balance sheet financial instruments and credit lines	114,337	107,545	6,522	270	(201)	(106)	(69)	(26)	
Total allowances and provisions					(1,091)	(260)	(267)	(564)	

1 The carrying amount of financial assets measured at amortized cost represents the total gross exposure net of the respective ECL allowances.

Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement (continued)

USD m	31.12.21							
	Carrying amount ¹				ECL allowances			
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3
Financial instruments measured at amortized cost								
Cash and balances at central banks	192,817	192,817	0	0	0	0	0	0
Loans and advances to banks	15,360	15,333	26	1	(8)	(7)	(1)	0
Receivables from securities financing transactions measured at amortized cost	75,012	75,012	0	0	(2)	(2)	0	0
Cash collateral receivables on derivative instruments	30,514	30,514	0	0	0	0	0	0
Loans and advances to customers	398,693	381,496	15,620	1,577	(850)	(126)	(152)	(572)
<i>of which: Private clients with mortgages</i>	152,479	143,505	8,262	711	(132)	(28)	(71)	(33)
<i>of which: Real estate financing</i>	43,945	40,463	3,472	9	(60)	(19)	(40)	0
<i>of which: Large corporate clients</i>	13,990	12,643	1,037	310	(170)	(22)	(16)	(133)
<i>of which: SME clients</i>	14,004	12,076	1,492	436	(259)	(19)	(15)	(225)
<i>of which: Lombard</i>	149,283	149,255	0	27	(33)	(6)	0	(28)
<i>of which: Credit cards</i>	1,716	1,345	342	29	(36)	(10)	(9)	(17)
<i>of which: Commodity trade finance</i>	3,813	3,799	7	7	(114)	(6)	0	(108)
Other financial assets measured at amortized cost	26,236	25,746	302	189	(109)	(27)	(7)	(76)
<i>of which: Loans to financial advisors</i>	2,453	2,184	106	163	(86)	(19)	(3)	(63)
Total financial assets measured at amortized cost	738,632	720,917	15,948	1,767	(969)	(161)	(160)	(647)
Financial assets measured at fair value through other comprehensive income	8,844	8,844	0	0	0	0	0	0
Total on-balance sheet financial assets within the scope of ECL requirements	747,477	729,762	15,948	1,767	(969)	(161)	(160)	(647)
Off-balance sheet (within the scope of ECL)								
Guarantees	20,972	19,695	1,127	150	(41)	(18)	(8)	(15)
<i>of which: Large corporate clients</i>	3,464	2,567	793	104	(6)	(3)	(3)	0
<i>of which: SME clients</i>	1,353	1,143	164	46	(8)	(1)	(1)	(7)
<i>of which: Financial intermediaries and hedge funds</i>	9,575	9,491	84	0	(17)	(13)	(4)	0
<i>of which: Lombard</i>	2,454	2,454	0	0	(1)	0	0	(1)
<i>of which: Commodity trade finance</i>	3,137	3,137	0	0	(1)	(1)	0	0
Irrevocable loan commitments	39,478	37,097	2,335	46	(114)	(72)	(42)	0
<i>of which: Large corporate clients</i>	23,922	21,811	2,102	9	(100)	(66)	(34)	0
Forward starting reverse repurchase and securities borrowing agreements	1,444	1,444	0	0	0	0	0	0
Committed unconditionally revocable credit lines	42,373	39,802	2,508	63	(38)	(28)	(10)	0
<i>of which: Real estate financing</i>	7,328	7,046	281	0	(5)	(4)	(1)	0
<i>of which: Large corporate clients</i>	5,358	4,599	736	23	(7)	(4)	(3)	0
<i>of which: SME clients</i>	5,160	4,736	389	35	(15)	(11)	(3)	0
<i>of which: Lombard</i>	8,670	8,670	0	0	0	0	0	0
<i>of which: Credit cards</i>	9,466	9,000	462	4	(6)	(5)	(2)	0
<i>of which: Commodity trade finance</i>	117	117	0	0	0	0	0	0
Irrevocable committed prolongation of existing loans	5,611	5,527	36	48	(3)	(3)	0	0
Total off-balance sheet financial instruments and credit lines	109,878	103,565	6,006	307	(196)	(121)	(60)	(15)
Total allowances and provisions					(1,165)	(282)	(220)	(662)

1 The carrying amount of financial assets measured at amortized cost represents the total gross exposure net of the respective ECL allowances.

Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement (continued)

Coverage ratios are calculated for the core loan portfolio by taking ECL allowances and provisions divided by the gross carrying amount of the exposures. Core loan exposure is defined as the sum of *Loans and advances to customers* and *Loans to financial advisors*.

These ratios are influenced by the following key factors:

- Lombard loans are generally secured with marketable securities in portfolios that are, as a rule, highly diversified, with strict lending policies that are intended to ensure that credit risk is minimal under most circumstances;
- mortgage loans to private clients and real estate financing are controlled by conservative eligibility criteria, including low loan-to-value ratios and strong debt service capabilities;
- the amount of unsecured retail lending (including credit cards) is insignificant;
- lending in Switzerland includes government-backed COVID-19 loans;
- contractual maturities in the loan portfolio, which are a factor in the calculation of ECLs, are generally short, with Lombard lending typically having average contractual maturities of 12 months or less, real estate lending generally between two and three years in Switzerland, with long dated maturities in the US, and corporate lending between one and two years with related loan commitments up to four years; and
- write-offs of ECL allowances against the gross loan balances when all or part of a financial asset is deemed uncollectible or forgiven, reduces the coverage ratios.

The total combined on- and off-balance sheet coverage ratio was at 21 basis points as of 31 December 2022, 1 basis point lower than on 31 December 2021. The combined stage 1 and 2 ratio of 10 basis points was unchanged compared with 31 December 2021; the stage 3 ratio was 22%, 2 percentage points lower than as of 31 December 2021.

On-balance sheet	31.12.22									
	Gross carrying amount (USD m)				ECL coverage (bps)					
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3	
Private clients with mortgages	157,091	147,678	8,686	727	10	2	123	9	381	
Real estate financing	46,511	43,129	3,372	9	9	4	70	9	232	
Total real estate lending	203,602	190,807	12,059	736	10	2	108	9	379	
Large corporate clients	12,356	10,757	1,204	395	105	22	120	32	2,325	
SME clients	14,154	12,237	1,364	553	177	22	161	36	3,664	
Total corporate lending	26,510	22,994	2,567	949	144	22	142	34	3,106	
Lombard	132,313	132,205	0	108	2	1	0	1	1,580	
Credit cards	1,869	1,427	393	50	190	46	256	91	3,779	
Commodity trade finance	3,367	3,266	0	101	285	18	0	18	8,901	
Other loans and advances to customers	23,149	22,333	748	68	18	6	38	7	3,769	
Loans to financial advisors	2,670	2,364	130	176	221	28	124	33	2,870	
Total other lending	163,368	161,595	1,270	503	16	3	114	3	4,016	
Total¹	393,480	375,396	15,896	2,188	21	4	114	8	2,398	
Off-balance sheet	Gross exposure (USD m)				ECL coverage (bps)					
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3	
Private clients with mortgages	6,535	6,296	236	3	5	4	18	4	1,183	
Real estate financing	10,054	9,779	275	0	6	7	0	6	0	
Total real estate lending	16,589	16,075	511	3	6	6	2	6	1,288	
Large corporate clients	32,126	28,950	3,013	163	38	18	165	32	1,263	
SME clients	7,122	6,525	499	98	47	30	214	43	304	
Total corporate lending	39,247	35,475	3,513	260	40	20	172	34	903	
Lombard	12,919	12,918	0	1	2	1	0	1	0	
Credit cards	9,390	8,900	487	3	7	5	36	7	0	
Commodity trade finance	2,459	2,459	0	0	3	3	0	3	0	
Financial intermediaries and hedge funds	18,128	16,464	1,664	0	7	6	25	7	0	
Other off-balance sheet commitments	11,803	11,454	346	3	11	8	68	9	0	
Total other lending	54,700	52,195	2,498	7	6	5	33	6	0	
Total²	110,537	103,745	6,522	270	18	10	106	16	980	
Total on- and off-balance sheet³	504,016	479,140	22,418	2,458	21	5	112	10	2,242	

1 Includes Loans and advances to customers and Loans to financial advisors which are presented on the balance sheet line Other assets measured at amortized cost.

2 Excludes Forward starting reverse repurchase and securities borrowing agreements.

3 Includes on-balance-sheet exposure, gross and off-balance-sheet exposure (notional) and the related ECL coverage ratio.

Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement (continued)

On-balance sheet	31.12.21									
	Gross carrying amount (USD m)				ECL coverage (bps)					
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3	
Private clients with mortgages	152,610	143,533	8,333	744	9	2	85	6	446	
Real estate financing	44,004	40,483	3,512	10	14	5	114	14	231	
Total real estate lending	196,615	184,016	11,845	754	10	3	94	8	443	
Large corporate clients	14,161	12,665	1,053	443	120	18	148	28	2,997	
SME clients	14,263	12,095	1,507	661	182	16	103	25	3,402	
Total corporate lending	28,424	24,760	2,560	1,104	151	17	121	26	3,240	
Lombard	149,316	149,261	0	55	2	0	0	0	5,026	
Credit cards	1,752	1,355	351	46	204	72	255	109	3,735	
Commodity trade finance	3,927	3,805	7	115	290	15	3	15	9,388	
Other loans and advances to customers	19,510	18,425	1,010	75	23	9	15	9	3,730	
Loans to financial advisors	2,539	2,203	109	226	338	88	303	99	2,791	
Total other lending	177,043	175,049	1,477	517	18	3	93	4	4,718	
Total¹	402,081	383,825	15,882	2,374	23	4	98	8	2,673	
Off-balance sheet	Gross exposure (USD m)				ECL coverage (bps)					
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3	
Private clients with mortgages	9,123	8,798	276	49	3	3	9	3	15	
Real estate financing	8,766	8,481	285	0	9	7	88	9	0	
Total real estate lending	17,889	17,278	562	49	6	5	49	6	15	
Large corporate clients	32,748	28,981	3,630	136	34	25	110	35	1	
SME clients	8,077	7,276	688	114	38	19	151	30	585	
Total corporate lending	40,826	36,258	4,318	250	35	24	117	34	266	
Lombard	14,438	14,438	0	0	1	0	0	0	0	
Credit cards	9,466	9,000	462	4	7	5	34	7	0	
Commodity trade finance	3,262	3,262	0	0	4	4	0	4	0	
Financial intermediaries and hedge funds	13,747	13,379	369	0	13	10	120	13	0	
Other off-balance sheet commitments	8,806	8,507	296	4	15	6	30	7	0	
Total other lending	49,720	48,585	1,127	8	8	5	61	7	0	
Total²	108,434	102,121	6,006	307	18	12	100	17	486	
Total on- and off-balance sheet³	510,516	485,946	21,888	2,681	22	5	99	9	2,423	

- 1 Includes Loans and advances to customers and Loans to financial advisors which are presented on the balance sheet line Other assets measured at amortized cost.
- 2 Excludes Forward starting reverse repurchase and securities borrowing agreements.
- 3 Includes on-balance-sheet exposure, gross and off-balance-sheet exposure (notional) and the related ECL coverage ratio.

Note 10 Derivative instruments

Overview

Over-the-counter (OTC) derivative contracts are usually traded under a standardized International Swaps and Derivatives Association (ISDA) master agreement or other recognized local industry-standard master agreements between UBS AG and its counterparties. Terms are negotiated directly with counterparties and the contracts have industry-standard settlement mechanisms prescribed by ISDA or similar industry-standard solutions. Other OTC derivatives are cleared through clearing houses, in particular interest rate swaps with LCH, where a settled-to-market method has been generally adopted, under which cash collateral exchanged on a daily basis is considered to legally settle the market value of the derivatives. Regulators in various jurisdictions have introduced rules requiring the payment and collection of initial and variation margins on certain OTC derivative contracts, which may have a bearing on price and other relevant terms.

Exchange-traded derivatives (ETD) are standardized in terms of their amounts and settlement dates, and are bought and sold on regulated exchanges. Exchanges offer the benefits of pricing transparency, standardized daily settlement of changes in value and, consequently, reduced credit risk.

Most of UBS AG's derivative transactions relate to sales and market-making activity. Sales activities include the structuring and marketing of derivative products to customers to enable them to take, transfer, modify or reduce current or expected risks. Market-making aims to directly support the facilitation and execution of client activity, and involves quoting bid and offer prices to other market participants with the aim of generating revenues based on spread and volume. UBS AG also uses various derivative instruments for hedging purposes.

- Refer to Notes 15 and 20 for more information about derivative instruments

- Refer to Note 25 for more information about derivatives designated in hedge accounting relationships

Note 10 Derivative instruments (continued)

Risks of derivative instruments

The derivative financial assets shown on the balance sheet can be an important component of UBS AG's credit exposure; however, the positive replacement values related to a respective counterparty are rarely an adequate reflection of UBS AG's credit exposure in its derivatives business with that counterparty. This is generally the case because, on the one hand, replacement values can increase over time (potential future exposure), while, on the other hand, exposure may be mitigated by entering into master netting agreements and bilateral collateral arrangements. Both the exposure measures used internally by UBS AG to control credit risk and the capital requirements imposed by regulators reflect these additional factors.

- Refer to Note 21 for more information about derivative financial assets and liabilities after consideration of netting potential permitted under enforceable netting arrangements
- Refer to the "Risk management and control" section of this report for more information about the risks arising from derivative instruments

Derivative instruments

	31.12.22					31.12.21				
	Derivative financial assets	Notional amounts related to derivative financial assets ^{2,3}	Derivative financial liabilities	Notional amounts related to derivative financial liabilities ^{2,3}	Other notional amounts ^{2,4}	Derivative financial assets	Notional amounts related to derivative financial assets ^{2,3}	Derivative financial liabilities	Notional amounts related to derivative financial liabilities ^{2,3}	Other notional amounts ^{2,4}
<i>USD bn</i>										
Interest rate contracts	39.8	1,057.4	37.5	1,022.9	11,255.4	33.2	991.2	28.7	943.1	8,675.1
<i>of which: forwards (OTC)¹</i>	<i>0.2</i>	<i>37.7</i>	<i>0.0</i>	<i>34.6</i>	<i>792.7</i>	<i>0.1</i>	<i>29.4</i>	<i>0.2</i>	<i>28.6</i>	<i>443.6</i>
<i>of which: swaps (OTC)</i>	<i>25.2</i>	<i>326.1</i>	<i>19.8</i>	<i>281.0</i>	<i>9,728.6</i>	<i>26.4</i>	<i>394.3</i>	<i>19.2</i>	<i>344.1</i>	<i>7,549.4</i>
<i>of which: options (OTC)</i>	<i>14.2</i>	<i>687.5</i>	<i>17.5</i>	<i>705.0</i>		<i>6.6</i>	<i>545.2</i>	<i>9.2</i>	<i>553.6</i>	
<i>of which: futures (ETD)</i>					<i>606.3</i>					<i>525.0</i>
<i>of which: options (ETD)</i>	<i>0.0</i>	<i>6.1</i>	<i>0.0</i>	<i>2.2</i>	<i>127.7</i>	<i>0.0</i>	<i>22.4</i>	<i>0.0</i>	<i>16.8</i>	<i>157.1</i>
Credit derivative contracts	1.0	36.8	1.2	37.1		1.4	44.7	1.8	46.3	
<i>of which: credit default swaps (OTC)</i>	<i>0.9</i>	<i>34.2</i>	<i>1.0</i>	<i>36.8</i>		<i>1.3</i>	<i>39.4</i>	<i>1.6</i>	<i>44.1</i>	
<i>of which: total return swaps (OTC)</i>	<i>0.1</i>	<i>0.9</i>	<i>0.2</i>	<i>0.3</i>		<i>0.1</i>	<i>1.3</i>	<i>0.2</i>	<i>1.7</i>	
Foreign exchange contracts	85.5	3,087.3	88.5	2,992.7	40.1	53.3	3,031.0	54.1	2,938.8	1.2
<i>of which: forwards (OTC)</i>	<i>26.5</i>	<i>853.6</i>	<i>28.6</i>	<i>910.2</i>		<i>23.8</i>	<i>1,009.1</i>	<i>23.8</i>	<i>1,043.2</i>	
<i>of which: swaps (OTC)</i>	<i>49.6</i>	<i>1,679.3</i>	<i>50.4</i>	<i>1,553.7</i>	<i>38.4</i>	<i>24.3</i>	<i>1,606.4</i>	<i>24.9</i>	<i>1,480.3</i>	
<i>of which: options (OTC)</i>	<i>9.3</i>	<i>551.6</i>	<i>9.2</i>	<i>521.6</i>		<i>5.2</i>	<i>412.6</i>	<i>5.3</i>	<i>408.6</i>	
Equity contracts	22.2	384.5	26.1	501.3	63.4	28.2	456.9	34.9	603.9	80.1
<i>of which: swaps (OTC)</i>	<i>5.3</i>	<i>95.5</i>	<i>6.6</i>	<i>122.0</i>		<i>4.7</i>	<i>105.7</i>	<i>9.3</i>	<i>154.8</i>	
<i>of which: options (OTC)</i>	<i>2.8</i>	<i>51.6</i>	<i>4.4</i>	<i>89.0</i>		<i>4.6</i>	<i>61.4</i>	<i>6.5</i>	<i>102.3</i>	
<i>of which: futures (ETD)</i>					<i>52.2</i>					<i>71.2</i>
<i>of which: options (ETD)</i>	<i>9.0</i>	<i>237.0</i>	<i>8.1</i>	<i>289.7</i>	<i>11.2</i>	<i>10.2</i>	<i>289.6</i>	<i>9.8</i>	<i>346.3</i>	<i>8.8</i>
<i>of which: client-cleared transactions (ETD)</i>	<i>5.1</i>		<i>7.0</i>			<i>8.6</i>		<i>9.4</i>		
Commodity contracts	1.4	68.1	1.4	64.2	17.6	1.6	57.8	1.6	56.4	14.7
<i>of which: swaps (OTC)</i>	<i>0.5</i>	<i>19.3</i>	<i>0.7</i>	<i>19.3</i>		<i>0.5</i>	<i>19.9</i>	<i>0.8</i>	<i>25.4</i>	
<i>of which: options (OTC)</i>	<i>0.4</i>	<i>15.8</i>	<i>0.3</i>	<i>13.3</i>		<i>0.4</i>	<i>14.0</i>	<i>0.2</i>	<i>10.4</i>	
<i>of which: futures (ETD)</i>					<i>16.4</i>					<i>13.9</i>
<i>of which: forwards (ETD)</i>	<i>0.0</i>	<i>24.5</i>	<i>0.0</i>	<i>23.2</i>		<i>0.0</i>	<i>18.1</i>	<i>0.0</i>	<i>15.2</i>	
<i>of which: client-cleared transactions (ETD)</i>	<i>0.2</i>		<i>0.3</i>			<i>0.6</i>		<i>0.4</i>		
Loan commitments measured at FVTPL (OTC)	0.0	0.9	0.0	3.7		0.0	0.8	0.0	8.2	
Unsettled purchases of non-derivative financial instruments⁵	0.1	12.1	0.1	9.4		0.1	13.3	0.2	10.6	
Unsettled sales of non-derivative financial instruments⁵	0.1	13.0	0.0	10.7		0.2	18.2	0.1	9.4	
Total derivative instruments, based on IFRS netting⁶	150.1	4,660.1	154.9	4,642.0	11,376.5	118.1	4,614.0	121.3	4,616.6	8,771.1

- 1 Includes certain forward starting repurchase and reverse repurchase agreements that are classified as measured at fair value through profit or loss and are recognized within derivative instruments.
- 2 In cases where derivative financial instruments are presented on a net basis on the balance sheet, the respective notional amounts of the netted derivative financial instruments are still presented on a gross basis.
- 3 Notional amounts of client-cleared ETD and OTC transactions through central clearing counterparties are not disclosed, as they have significantly different risk profile.
- 4 Other notional amounts relate to derivatives that are cleared through either a central counterparty or an exchange. The fair value of these derivatives is presented on the balance sheet net of the corresponding cash margin under Cash collateral receivables on derivative instruments and Cash collateral payables on derivative instruments and was not material for any of the periods presented.
- 5 Changes in the fair value of purchased and sold non-derivative financial instruments between trade date and settlement date are recognized as derivative financial instruments.
- 6 Derivative financial assets and liabilities are presented net on the balance sheet if UBS AG has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of the entity and all of the counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. Refer to Note 21 for more information on netting arrangements.

Note 10 Derivative instruments (continued)

On a notional amount basis, approximately 46% of OTC interest rate contracts held as of 31 December 2022 (31 December 2021: 40%) mature within one year, 32% (31 December 2021: 36%) within one to five years and 22% (31 December 2021: 25%) after five years.

Notional amounts of interest rate contracts cleared through either a central counterparty or an exchange that are legally settled or economically net settled on a daily basis are presented under *Other notional amounts* in the table above and are categorized into maturity buckets on the basis of contractual maturities of the cleared underlying derivative contracts. Other notional amounts related to interest rate contracts increased by USD 2.6trn compared with 31 December 2021, mainly reflecting higher business volumes driven by elevated interest rate volatility and inflation, partly offset by compression activity.

Note 11 Property, equipment and software

At historical cost less accumulated depreciation

<i>USD m</i>	Owned properties and equipment ¹	Leased properties and equipment ²	Software	Projects in progress	2022 ³	2021 ³
Historical cost						
Balance at the beginning of the year	11,494	3,994	7,924	1,130	24,542	23,785
Additions	90 ¹	380	330	1,059	1,859	1,789
Disposals / write-offs ⁴	(284)	(48)	(81)	0	(414)	(632)
Reclassifications	(796)	0	1,052	(1,150)	(894)	(18)
Foreign currency translation	(152)	(50)	(5)	7	(200)	(381)
Balance at the end of the year	10,352	4,275	9,220	1,046	24,893	24,542
Accumulated depreciation						
Balance at the beginning of the year	7,178	1,272	4,380		12,830	11,827
Depreciation	463	430	926		1,819	1,835
Impairment ⁵	2	0	0		2	9
Disposals / write-offs ⁴	(283)	(45)	(81)		(410)	(619)
Reclassifications	(565)	(1)	0		(566)	(12)
Foreign currency translation	(98)	(18)	17		(99)	(210)
Balance at the end of the year	6,697	1,638	5,242		13,577	12,830
Net book value						
Net book value at the beginning of the year	4,316	2,722	3,544	1,130	11,712	11,958
Net book value at the end of the year	3,655	2,637	3,978	1,046 ⁶	11,316	11,712

1 Includes leasehold improvements and IT hardware.

2 Represents right-of-use assets recognized by UBS AG as lessee. UBS AG predominantly enters into lease contracts, or contracts that include lease components, in relation to real estate, including offices, retail branches and sales offices. The total cash outflow for leases during 2022 was USD 589m (2021: USD 632m). Interest expense on lease liabilities is included within Interest expense from financial instruments measured at amortized cost and Lease liabilities are included within Other financial liabilities measured at amortized cost. Refer to Notes 3 and 18a, respectively. There were no material gains or losses arising from sale-and-leaseback transactions in 2022 and in 2021.

3 The total reclassification amount for the respective periods represents net reclassifications to Properties and other non-current assets held for sale.

4 Includes write-offs of fully depreciated assets.

5 Impairment charges recorded in 2022 generally relate to assets that are no longer used, for which the recoverable amount based on a value in use approach was determined to be zero.

6 Consists of USD 858m related to software and USD 188m related to Owned properties and equipment.

Note 12 Goodwill and intangible assets

Introduction

UBS AG performs an impairment test on its goodwill assets on an annual basis or when indicators of impairment exist.

UBS AG considers Asset Management, as it is reported in Note 2a, as a separate cash-generating unit (a CGU), as that is the level at which the performance of investment (and the related goodwill) is reviewed and assessed by management. Given that a significant amount of goodwill in Global Wealth Management relates to the PaineWebber acquisition in 2000, which mainly affected the Americas portion of the business, this goodwill remains separately monitored by the Americas, despite the formation of Global Wealth Management in 2018. Therefore, goodwill for Global Wealth Management is separately considered for impairment at the level of two CGUs: Americas; and Switzerland and International (consisting of EMEA, Asia Pacific and Global).

The impairment test is performed for each CGU to which goodwill is allocated by comparing the recoverable amount with the carrying amount of the respective CGU. UBS AG determines the recoverable amount of the respective CGUs based on their value in use. An impairment charge is recognized if the carrying amount exceeds the recoverable amount.

Note 12 Goodwill and intangible assets (continued)

As of 31 December 2022, total goodwill recognized on the balance sheet was USD 6.0bn, of which USD 3.7bn was carried by the Global Wealth Management Americas CGU, USD 1.2bn was carried by the Global Wealth Management Switzerland and International CGU, and USD 1.2bn was carried by Asset Management. Based on the impairment testing methodology described below, UBS AG concluded that the goodwill balances as of 31 December 2022 allocated to these CGUs were not impaired.

Methodology for goodwill impairment testing

The recoverable amounts are determined using a discounted cash flow model, which has been adapted to use inputs that consider features of the banking business and its regulatory environment. The recoverable amount of a CGU is the sum of the discounted earnings attributable to shareholders from the first three forecast years and the terminal value, adjusted for the effect of the capital assumed to be needed over the next three years and to support growth beyond that period. The terminal value, which covers all periods beyond the third year, is calculated on the basis of the forecast of the third-year profit, the discount rate and the long-term growth rate, as well as the implied perpetual capital growth.

The carrying amount for each CGU is determined by reference to UBS's equity attribution framework. Within this framework, which is described in the "Capital, liquidity and funding, and balance sheet" section of this report, UBS attributes equity to the businesses on the basis of their risk-weighted assets and leverage ratio denominator (both metrics include resource allocations from Group Functions to the business divisions), their goodwill and their intangible assets, as well as attributed equity related to certain common equity tier 1 deduction items. The framework is primarily used for the purpose of measuring the performance of the businesses and includes certain management assumptions. Attributed equity is equal to the capital a CGU requires to conduct its business and is currently considered a reasonable approximation of the carrying amount of the CGUs. The attributed equity methodology is also applied in the business planning process, the inputs from which are used in calculating the recoverable amounts of the respective CGU.

- **Refer to the "Capital, liquidity and funding, and balance sheet" section of this report for more information about the equity attribution framework**

Assumptions

Valuation parameters used within UBS AG's impairment test model are linked to external market information, where applicable. The model used to determine the recoverable amount is most sensitive to changes in the forecast earnings available to shareholders in years one to three, to changes in the discount rates and to changes in the long-term growth rate. The applied long-term growth rate is based on long-term economic growth rates for different regions worldwide. Earnings available to shareholders are estimated on the basis of forecast results, which are part of the business plan approved by the Board of Directors.

The discount rates are determined by applying a capital asset pricing model-based approach, as well as considering quantitative and qualitative inputs from both internal and external analysts and the view of management. They also take into account regional differences in risk-free rates at the level of the individual CGUs. In line with discount rates, long-term growth rates are determined at the regional level based on nominal GDP growth rate forecasts.

Key assumptions used to determine the recoverable amounts of each CGU are tested for sensitivity by applying a reasonably possible change to those assumptions. Forecast earnings available to shareholders were changed by 20%, the discount rates were changed by 1.5 percentage points, and the long-term growth rates were changed by 0.75 percentage points. Under all scenarios, reasonably possible changes in key assumptions did not result in an impairment of goodwill or intangible assets reported by Global Wealth Management Americas, Global Wealth Management Switzerland and International, and Asset Management.

If the estimated earnings and other assumptions in future periods deviate from the current outlook, the value of goodwill attributable to Global Wealth Management Americas, Global Wealth Management Switzerland and International, and Asset Management may become impaired in the future, giving rise to losses in the income statement. Recognition of any impairment of goodwill would reduce International Financial Reporting Standards equity and net profit. It would not affect cash flows and, as goodwill is required to be deducted from capital under the Basel III capital framework, no effect would be expected on UBS AG's capital ratios.

Discount and growth rates

In%	Discount rates		Growth rates	
	31.12.22	31.12.21	31.12.22	31.12.21
Global Wealth Management Americas	10.5	9.5	3.8	4.0
Global Wealth Management Switzerland and International	9.4	8.5	3.6	3.1
Asset Management	9.5	8.5	3.4	2.9

Note 12 Goodwill and intangible assets (continued)

<i>USD m</i>	Goodwill	Intangible assets ¹	2022	2021
Historical cost				
Balance at the beginning of the year	6,126	1,612	7,739	7,865
Additions	0	0	0	1
Disposals ²	(22)	0	(22)	(3)
Write-offs	0	0	0	(41)
Foreign currency translation	(61)	(14)	(76)	(83)
Balance at the end of the year	<u>6,043</u>	<u>1,598</u>	<u>7,641</u>	<u>7,739</u>
Accumulated amortization and impairment				
Balance at the beginning of the year		1,360	1,360	1,385
Amortization		26	26	31
Impairment / (reversal of impairment)		(1)	(1)	(1)
Write-offs		0	0	(41)
Foreign currency translation		(11)	(11)	(13)
Balance at the end of the year		<u>1,374</u>	<u>1,374</u>	<u>1,360</u>
Net book value at the end of the year	<u>6,043</u>	<u>224</u>	<u>6,267</u>	<u>6,378</u>
<i>of which: Global Wealth Management Americas</i>	<i>3,709</i>	<i>31</i>	<i>3,740</i>	<i>3,760</i>
<i>of which: Global Wealth Management Switzerland and International</i>	<i>1,166</i>	<i>59</i>	<i>1,225</i>	<i>1,276</i>
<i>of which: Asset Management</i>	<i>1,167</i>	<i>0</i>	<i>1,167</i>	<i>1,202</i>
<i>of which: Investment Bank</i>	<i>0</i>	<i>135</i>	<i>135</i>	<i>139</i>

- Intangible assets mainly include customer relationships, contractual rights and the fully amortized branch network intangible asset recognized in connection with the acquisition of PaineWebber Group, Inc.
- Reflects the derecognition of goodwill allocated to businesses that have been disposed of, in accordance with IAS 36 requirements.

The table below presents estimated aggregated amortization expenses for intangible assets.

<i>USD m</i>	Intangible assets
Estimated aggregated amortization expenses for:	
2023	26
2024	24
2025	23
2026	23
2027	22
Thereafter	104
Not amortized due to indefinite useful life	2
Total	<u>224</u>

Note 13 Other assets

a) Other financial assets measured at amortized cost

<i>USD m</i>	31.12.22	31.12.21
Debt securities	44,594	18,858
Loans to financial advisors	2,611	2,453
Fee- and commission-related receivables	1,803	1,966
Finance lease receivables	1,314	1,356
Settlement and clearing accounts	1,174	455
Accrued interest income	1,276	521
Other	618	627
Total other financial assets measured at amortized cost	<u>53,389</u>	<u>26,236</u>

Debt securities increased by USD 25.7bn compared with 31 December 2021, largely reflecting shifts from cash into securities within UBS's high-quality liquid asset portfolio as spreads widened. In addition, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost in 2022.

- Refer to Note 1b for more information

Note 13 Other assets (continued)

b) Other non-financial assets

<i>USD m</i>	31.12.22	31.12.21
Precious metals and other physical commodities	4,471	5,258
Deposits and collateral provided in connection with litigation, regulatory and similar matters ¹	2,205	1,526
Prepaid expenses	709	717
VAT, withholding tax and other tax receivables	1,405	591
Properties and other non-current assets held for sale	279	32
Assets of disposal group held for sale ²		1,093
Other	583	618
Total other non-financial assets	9,652	9,836

1 Refer to Note 17 for more information.

2 Refer to Note 29 for more information.

Note 14 Customer deposits, and funding from UBS Group AG

a) Customer deposits

<i>USD m</i>	31.12.22	31.12.21
Demand deposits	182,307	247,299
Retail savings / deposits	149,310	133,354
Sweep deposits	69,223	113,870
Time deposits ¹	126,331	50,312
Total customer deposits	527,171	544,834

1 Includes customer deposits in UBS AG Jersey Branch placed by UBS Switzerland AG on behalf of its clients.

Increases in interest rates during the year resulted in significant shifts from demand deposits to time deposits.

b) Funding from UBS Group AG measured at amortized cost

<i>USD m</i>	31.12.22	31.12.21
Senior unsecured debt that contributes to total loss-absorbing capacity (TLAC)	42,073	38,984
Senior unsecured debt other than TLAC	236	4,471
Subordinated debt	13,838	13,840
<i>of which: eligible as high-trigger loss-absorbing additional tier 1 capital instruments</i>	10,654	11,414
<i>of which: eligible as low-trigger loss-absorbing additional tier 1 capital instruments</i>	1,187	2,426
Total funding from UBS Group AG measured at amortized cost¹	56,147	57,295

1 UBS AG has also recognized funding from UBS Group AG that is designated at fair value. Refer to Note 18b for more information.

UBS AG uses interest rate and foreign exchange derivatives to manage the risks inherent in certain debt instruments held at amortized cost. In some cases, UBS AG applies hedge accounting for interest rate risk as discussed in item 2j in Note 1a and Note 25. As a result of applying hedge accounting, the life-to-date adjustment to the carrying amount of *Funding from UBS Group AG measured at amortized cost* was a decrease of USD 5.1bn as of 31 December 2022 and an increase of USD 0.2bn as of 31 December 2021, reflecting changes in fair value due to interest rate movements.

Subordinated debt consists of unsecured debt obligations that are contractually subordinated in right of payment to all other present and future non-subordinated obligations of the respective issuing entity. All of the subordinated debt instruments outstanding as of 31 December 2022 pay a fixed rate of interest.

- Refer to Note 23 for maturity information

Note 15 Debt issued designated at fair value

<i>USD m</i>	31.12.22	31.12.21
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Issued debt instruments		
Equity-linked ¹	41,901	47,059
Rates-linked	16,276	16,369
Credit-linked	2,170	1,723
Fixed-rate	6,538	2,868
Commodity-linked	4,294	2,911
Other	663	529
Total debt issued designated at fair value	71,842	71,460
<i>of which: issued by UBS AG with original maturity greater than one year²</i>	57,750	57,967

1 Includes investment fund unit-linked instruments issued.

2 Based on original contractual maturity without considering any early redemption features. As of 31 December 2022, 100% of the balance was unsecured (31 December 2021: 100%).

Note 16 Debt issued measured at amortized cost

<i>USD m</i>	31.12.22	31.12.21
Short-term debt¹	29,676	43,098
Senior unsecured debt	17,892	23,328
<i>of which: issued by UBS AG with original maturity greater than one year</i>	17,892	23,307
Covered bonds	0	1,389
Subordinated debt	2,968	5,163
<i>of which: eligible as low-trigger loss-absorbing tier 2 capital instruments</i>	2,422	2,596
<i>of which: eligible as non-Basel III-compliant tier 2 capital instruments</i>	536	547
Debt issued through the Swiss central mortgage institutions	8,962	9,454
Long-term debt²	29,823	39,334
Total debt issued measured at amortized cost³	59,499	82,432

- Debt with an original contractual maturity of less than one year, includes mainly certificates of deposit and commercial paper.
- Debt with an original contractual maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features.
- Net of bifurcated embedded derivatives, the fair value of which was not material for the periods presented.

UBS AG uses interest rate and foreign exchange derivatives to manage the risks inherent in certain debt instruments held at amortized cost. In some cases, UBS AG applies hedge accounting for interest rate risk as discussed in item 2j in Note 1a and Note 25. As a result of applying hedge accounting, the life-to-date adjustment to the carrying amount of debt issued was a decrease of USD 1.0bn as of 31 December 2022 and an increase of USD 0.3bn as of 31 December 2021, reflecting changes in fair value due to interest rate movements.

Subordinated debt consists of unsecured debt obligations that are contractually subordinated in right of payment to all other present and future non-subordinated obligations of the respective issuing entity. All of the subordinated debt instruments outstanding as of 31 December 2022 pay a fixed rate of interest.

- Refer to Note 23 for maturity information

Note 17 Provisions and contingent liabilities

a) Provisions

The table below presents an overview of total provisions.

<i>USD m</i>	31.12.22	31.12.21
Provisions other than provisions for expected credit losses	2,982	3,256
Provisions for expected credit losses ¹	201	196
Total provisions	3,183	3,452

- Refer to Note 9 for more information about ECL provisions recognized for off-balance sheet financial instruments and credit lines.

The following table presents additional information for provisions other than provisions for expected credit losses.

<i>USD m</i>	Litigation, regulatory and similar matters ¹	Restructuring	Other ³	Total 2022
Balance at the beginning of the year	2,798	137	321	3,256
Increase in provisions recognized in the income statement	406	174	49	629
Release of provisions recognized in the income statement	(57)	(19)	(32)	(109)
Provisions used in conformity with designated purpose	(470)	(189)	(31)	(689)
Capitalized reinstatement costs	0	0	1	1
Foreign currency translation / unwind of discount	(90)	(5)	(11)	(106)
Balance at the end of the year	2,586	98²	297	2,982

- Consists of provisions for losses resulting from legal, liability and compliance risks.
- Consists of personnel-related restructuring provisions of USD 70m as of 31 December 2022 (31 December 2021: USD 90m) and provisions for onerous contracts of USD 28m as of 31 December 2022 (31 December 2021: USD 47m).
- Mainly includes provisions related to real estate, employee benefits and operational risks.

Restructuring provisions relate to personnel-related provisions and onerous contracts. Personnel-related restructuring provisions are generally used

within a short period of time. The level of personnel-related provisions can change when natural staff attrition reduces the number of people affected by a restructuring event, and therefore results in lower estimated costs. Onerous contracts for property are recognized when UBS is committed to pay for non-lease components, such as utilities, service charges, taxes and maintenance, when a property is vacated or not fully recovered from subtenants.

Information about provisions and contingent liabilities in respect of litigation, regulatory and similar matters, as a class, is included in Note 17b. There are no material contingent liabilities associated with the other classes of provisions.

Note 17 Provisions and contingent liabilities (continued)

b) Litigation, regulatory and similar matters

UBS operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this Note may refer to UBS AG and/or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties, and the outcome and the timing of resolution are often difficult to predict, particularly in the earlier stages of a case. There are also situations where UBS may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which UBS believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. UBS makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that UBS has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against UBS, but are nevertheless expected to be, based on UBS's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to such matters could be significant. Developments relating to a matter that occur after the relevant reporting period, but prior to the issuance of financial statements, which affect management's assessment of the provision for such matter (because, for example, the developments provide evidence of conditions that existed at the end of the reporting period), are adjusting events after the reporting period under IAS 10 and must be recognized in the financial statements for the reporting period.

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

In the case of certain matters below, we state that we have established a provision, and for the other matters, we make no such statement. When we make this statement and we expect disclosure of the amount of a provision to prejudice seriously our position with other parties in the matter because it would reveal what UBS believes to be the probable and reliably estimable outflow, we do not disclose that amount. In some cases we are subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which we do not state whether we have established a provision, either: (a) we have not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard; or (b) we have established a provision but expect disclosure of that fact to prejudice seriously our position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which we have established provisions, we are able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which we are able to estimate expected timing is immaterial relative to our current and expected levels of liquidity over the relevant time periods.

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in the "Provisions" table in Note 17a above. It is not practicable to provide an aggregate estimate of liability for our litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require UBS to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although UBS therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, UBS believes that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions.

Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. A guilty plea to, or conviction of, a crime could have material consequences for UBS. Resolution of regulatory proceedings may require UBS to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations, and may permit financial market utilities to limit, suspend or terminate UBS's participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining capital requirements. Information concerning our capital requirements and the calculation of operational risk for this purpose is included in the "Capital, liquidity and funding, and balance sheet" section of this report.

Note 17 Provisions and contingent liabilities (continued)

Provisions for litigation, regulatory and similar matters by business division and in Group Functions¹

<i>USD m</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total 2022
Balance at the beginning of the year	1,338	181	8	310	962	2,798
Increase in provisions recognized in the income statement	268	2	1	129	6	406
Release of provisions recognized in the income statement	(23)	(15)	0	(8)	(12)	(57)
Provisions used in conformity with designated purpose	(331)	0	0	(115)	(23)	(470)
Reclassifications	0	0	0	4	(4)	0
Foreign currency translation / unwind of discount	(70)	(9)	0	(11)	0	(90)
Balance at the end of the year	1,182	159	8	308	928	2,586

1 Provisions, if any, for the matters described in items 3 and 4 of this Note are recorded in Global Wealth Management, and provisions, if any, for the matters described in item 2 are recorded in Group Functions. Provisions, if any, for the matters described in items 1 and 6 of this Note are allocated between Global Wealth Management and Personal & Corporate Banking, provisions, if any, for the matters described in item 5 are allocated between the Investment Bank and Group Functions, and provisions, if any, for the matters described in item 7 are allocated between Global Wealth Management and the Investment Bank.

1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions.

Since 2013, UBS (France) S.A., UBS AG and certain former employees have been under investigation in France in relation to UBS's cross-border business with French clients. In connection with this investigation, the investigating judges ordered UBS AG to provide bail ("caution") of EUR 1.1bn.

On 20 February 2019, the court of first instance returned a verdict finding UBS AG guilty of unlawful solicitation of clients on French territory and aggravated laundering of the proceeds of tax fraud, and UBS (France) S.A. guilty of aiding and abetting unlawful solicitation and of laundering the proceeds of tax fraud. The court imposed fines aggregating EUR 3.7bn on UBS AG and UBS (France) S.A. and awarded EUR 800m of civil damages to the French state. A trial in the French Court of Appeal took place in March 2021. On 13 December 2021, the Court of Appeal found UBS AG guilty of unlawful solicitation and aggravated laundering of the proceeds of tax fraud. The court ordered a fine of EUR 3.75m, the confiscation of EUR 1bn, and awarded civil damages to the French state of EUR 800m. UBS AG has filed an appeal with the French Supreme Court to preserve its rights. The notice of appeal enables UBS AG to thoroughly assess the verdict of the Court of Appeal and to determine next steps in the best interest of its stakeholders. The fine and confiscation imposed by the Court of Appeal are suspended during the appeal. The civil damages award has been paid to the French state (EUR 99m of which was deducted from the bail), subject to the result of UBS's appeal.

Our balance sheet at 31 December 2022 reflected provisions with respect to this matter in an amount of EUR 1.1bn (USD 1.2bn). The wide range of possible outcomes in this case contributes to a high degree of estimation uncertainty and the provision reflects our best estimate of possible financial implications, although actual penalties and civil damages could exceed (or may be less than) the provision amount.

Our balance sheet at 31 December 2022 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities (RMBS) and was a purchaser and seller of US residential mortgages.

In November 2018, the DOJ filed a civil complaint in the District Court for the Eastern District of New York. The complaint seeks unspecified civil monetary penalties under the Financial Institutions Reform, Recovery and Enforcement Act of 1989 related to UBS's issuance, underwriting and sale of 40 RMBS transactions in 2006 and 2007. UBS moved to dismiss the civil complaint in February 2019. In December 2019, the district court denied UBS's motion to dismiss.

Our balance sheet at 31 December 2022 reflected a provision with respect to matters described in this item 2 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

Note 17 Provisions and contingent liabilities (continued)

3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC (BMIS) investment fraud, UBS AG, UBS (Luxembourg) S.A. (now UBS Europe SE, Luxembourg branch) and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority (FINMA) and the Luxembourg Commission de Surveillance du Secteur Financier. Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds faced severe losses, and the Luxembourg funds are in liquidation. The documentation establishing both funds identifies UBS entities in various roles, including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members.

In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims against UBS entities, non-UBS entities and certain individuals, including current and former UBS employees, seeking amounts totaling approximately EUR 2.1bn, which includes amounts that the funds may be held liable to pay the trustee for the liquidation of BMIS (BMIS Trustee).

A large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff fraud. The majority of these cases have been filed in Luxembourg, where decisions that the claims in eight test cases were inadmissible have been affirmed by the Luxembourg Court of Appeal, and the Luxembourg Supreme Court has dismissed a further appeal in one of the test cases.

In the US, the BMIS Trustee filed claims against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2bn. In 2014, the US Supreme Court rejected the BMIS Trustee's motion for leave to appeal decisions dismissing all claims except those for the recovery of approximately USD 125m of payments alleged to be fraudulent conveyances and preference payments. In 2016, the bankruptcy court dismissed these claims against the UBS entities. In February 2019, the Court of Appeals reversed the dismissal of the BMIS Trustee's remaining claims, and the US Supreme Court subsequently denied a petition seeking review of the Court of Appeals' decision. The case has been remanded to the Bankruptcy Court for further proceedings.

4. Puerto Rico

Declines since 2013 in the market prices of Puerto Rico municipal bonds and of closed-end funds (funds) that are sole-managed and co-managed by UBS Trust Company of Puerto Rico and distributed by UBS Financial Services Incorporated of Puerto Rico (UBS PR) led to multiple regulatory inquiries, which in 2014 and 2015, led to settlements with the Office of the Commissioner of Financial Institutions for the Commonwealth of Puerto Rico, the US Securities and Exchange Commission (SEC) and the Financial Industry Regulatory Authority.

Since then, UBS clients in Puerto Rico who own the funds or Puerto Rico municipal bonds and/or who used their UBS account assets as collateral for UBS non-purpose loans filed customer complaints and arbitration demands seeking aggregate damages of USD 3.42bn, of which USD 3.37bn have been resolved through settlements, arbitration or withdrawal of claims. Allegations include fraud, misrepresentation and unsuitability of the funds and of the loans.

A shareholder derivative action was filed in 2014 against various UBS entities and current and certain former directors of the funds, alleging hundreds of millions of US dollars in losses in the funds. In 2021, the parties reached an agreement to settle this matter for USD 15m, subject to court approval.

In 2011, a purported derivative action was filed on behalf of the Employee Retirement System of the Commonwealth of Puerto Rico (System) against over 40 defendants, including UBS PR, which was named in connection with its underwriting and consulting services. Plaintiffs alleged that defendants violated their purported fiduciary duties and contractual obligations in connection with the issuance and underwriting of USD 3bn of bonds by the System in 2008 and sought damages of over USD 800m. In 2016, the court granted the System's request to join the action as a plaintiff. In 2022, a federal district court enjoined the plaintiffs from proceeding with the action on the grounds it impermissibly conflicted with Puerto Rico's approved Plan of Adjustment.

Beginning in 2015, certain agencies and public corporations of the Commonwealth of Puerto Rico (Commonwealth) defaulted on certain interest payments on Puerto Rico bonds. In 2016, US federal legislation created an oversight board with power to oversee Puerto Rico's finances and to restructure its debt. The oversight board has imposed a stay on the exercise of certain creditors' rights. In 2017, the oversight board placed certain of the bonds into a bankruptcy-like proceeding under the supervision of a Federal District Judge.

In May 2019, the oversight board filed complaints in Puerto Rico federal district court bringing claims against financial, legal and accounting firms that had participated in Puerto Rico municipal bond offerings, including UBS, seeking a return of underwriting and swap fees paid in connection with those offerings. UBS estimates that it received approximately USD 125m in fees in the relevant offerings.

Note 17 Provisions and contingent liabilities (continued)

In August 2019, and February and November 2020, four US insurance companies that insured issues of Puerto Rico municipal bonds sued UBS and several other underwriters of Puerto Rico municipal bonds in three separate cases. The actions collectively seek recovery of an aggregate of USD 955m in damages from the defendants. The plaintiffs in these cases claim that defendants failed to reasonably investigate financial statements in the offering materials for the insured Puerto Rico bonds issued between 2002 and 2007, which plaintiffs argue they relied upon in agreeing to insure the bonds notwithstanding that they had no contractual relationship with the underwriters. Defendants' motions to dismiss have been granted in all three cases; those decisions are being appealed by the plaintiffs.

Our balance sheet at 31 December 2022 reflected provisions with respect to matters described in this item 4 in amounts that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provisions that we have recognized.

5. Foreign exchange, LIBOR and benchmark rates, and other trading practices

Foreign exchange-related regulatory matters: Beginning in 2013, numerous authorities commenced investigations concerning possible manipulation of foreign exchange markets and precious metals prices. As a result of these investigations, UBS entered into resolutions with Swiss, US and United Kingdom regulators and the European Commission. UBS was granted conditional immunity by the Antitrust Division of the DOJ and by authorities in other jurisdictions in connection with potential competition law violations relating to foreign exchange and precious metals businesses.

Foreign exchange-related civil litigation: Putative class actions have been filed since 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. UBS has resolved US federal court class actions relating to foreign currency transactions with the defendant banks and persons who transacted in foreign exchange futures contracts and options on such futures under a settlement agreement that provides for UBS to pay an aggregate of USD 141m and provide cooperation to the settlement classes. Certain class members have excluded themselves from that settlement and have filed individual actions in US and English courts against UBS and other banks, alleging violations of US and European competition laws and unjust enrichment. UBS and the other banks have reached an agreement in principle to resolve those individual matters.

In 2015, a putative class action was filed in federal court against UBS and numerous other banks on behalf of persons and businesses in the US who directly purchased foreign currency from the defendants and alleged co-conspirators for their own end use. In March 2017, the court granted UBS's (and the other banks') motions to dismiss the complaint. The plaintiffs filed an amended complaint in August 2017. In March 2018, the court denied the defendants' motions to dismiss the amended complaint. In March 2022, the court denied plaintiffs' motion for class certification.

LIBOR and other benchmark-related regulatory matters: Numerous government agencies conducted investigations regarding potential improper attempts by UBS, among others, to manipulate LIBOR and other benchmark rates at certain times. UBS reached settlements or otherwise concluded investigations relating to benchmark interest rates with the investigating authorities. UBS was granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and the Swiss Competition Commission (WEKO), in connection with potential antitrust or competition law violations related to certain rates. However, UBS has not reached a final settlement with WEKO, as the Secretariat of WEKO has asserted that UBS does not qualify for full immunity.

LIBOR and other benchmark-related civil litigation: A number of putative class actions and other actions are pending in the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending in the US and in other jurisdictions are a number of other actions asserting losses related to various products whose interest rates were linked to LIBOR and other benchmarks, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. The complaints allege manipulation, through various means, of certain benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR, SGD SIBOR and SOR and Australian BBSW, and seek unspecified compensatory and other damages under varying legal theories.

Note 17 Provisions and contingent liabilities (continued)

USD LIBOR class and individual actions in the US: In 2013 and 2015, the district court in the USD LIBOR actions dismissed, in whole or in part, certain plaintiffs' antitrust claims, federal racketeering claims, CEA claims, and state common law claims, and again dismissed the antitrust claims in 2016 following an appeal. In December 2021, the Second Circuit affirmed the district court's dismissal in part and reversed in part and remanded to the district court for further proceedings. The Second Circuit, among other things, held that there was personal jurisdiction over UBS and other foreign defendants based on allegations that at least one alleged co-conspirator undertook an overt act in the United States. Separately, in 2018, the Second Circuit reversed in part the district court's 2015 decision dismissing certain individual plaintiffs' claims and certain of these actions are now proceeding. In 2018, the district court denied plaintiffs' motions for class certification in the USD class actions for claims pending against UBS, and plaintiffs sought permission to appeal that ruling to the Second Circuit. In July 2018, the Second Circuit denied the petition to appeal of the class of USD lenders and in November 2018 denied the petition of the USD exchange class. In January 2019, a putative class action was filed in the District Court for the Southern District of New York against UBS and numerous other banks on behalf of US residents who, since 1 February 2014, directly transacted with a defendant bank in USD LIBOR instruments. The complaint asserts antitrust claims. The defendants moved to dismiss the complaint in August 2019. In March 2020 the court granted defendants' motion to dismiss the complaint in its entirety. Plaintiffs have appealed the dismissal. In March 2022, the Second Circuit dismissed the appeal because appellants, who had been substituted in to replace the original plaintiffs who had withdrawn, lacked standing to pursue the appeal. In August 2020, an individual action was filed in the Northern District of California against UBS and numerous other banks alleging that the defendants conspired to fix the interest rate used as the basis for loans to consumers by jointly setting the USD LIBOR rate and monopolized the market for LIBOR-based consumer loans and credit cards. Defendants moved to dismiss the complaint in September 2021. In September 2022, the court granted defendants' motion to dismiss the complaint in its entirety, while allowing plaintiffs the opportunity to file an amended complaint. Plaintiffs filed an amended complaint in October 2022, and defendants have moved to dismiss the amended complaint in November 2022.

Other benchmark class actions in the US:

Yen LIBOR / Euroyen TIBOR – In 2014, 2015 and 2017, the court in one of the Yen LIBOR / Euroyen TIBOR lawsuits dismissed certain of the plaintiffs' claims, including the plaintiffs' federal antitrust and racketeering claims. In August 2020, the court granted defendants' motion for judgment on the pleadings and dismissed the lone remaining claim in the action as impermissibly extraterritorial. In October 2022, the appeals court affirmed the dismissal on multiple grounds. In 2017, the court dismissed the other Yen LIBOR / Euroyen TIBOR action in its entirety on standing grounds. In April 2020, the appeals court reversed the dismissal and in August 2020 plaintiffs in that action filed an amended complaint focused on Yen LIBOR. The court granted in part and denied in part defendants' motion to dismiss the amended complaint in September 2021. In August 2022, the court granted UBS's motion for reconsideration and dismissed the case against UBS.

CHF LIBOR – In 2017, the court dismissed the CHF LIBOR action on standing grounds and failure to state a claim. Plaintiffs filed an amended complaint, and the court granted a renewed motion to dismiss in September 2019. Plaintiffs appealed. In September 2021, the Second Circuit granted the parties' joint motion to vacate the dismissal and remand the case for further proceedings. Plaintiffs filed a third amended complaint in November 2022 and defendants have moved to dismiss the amended complaint in January 2023.

EURIBOR – In 2017, the court in the EURIBOR lawsuit dismissed the case as to UBS and certain other foreign defendants for lack of personal jurisdiction. Plaintiffs have appealed.

SIBOR / SOR – In October 2018, the court in the SIBOR / SOR action dismissed all but one of plaintiffs' claims against UBS. Plaintiffs filed an amended complaint, and the court granted a renewed motion to dismiss in July 2019. Plaintiffs appealed. In March 2021, the Second Circuit reversed the dismissal. Plaintiffs filed an amended complaint in October 2021, which defendants moved to dismiss in November 2021. In March 2022, plaintiffs reached a settlement in principle with the remaining defendants, including UBS. The court granted final approval of the settlement in November 2022.

BBSW – In November 2018, the court dismissed the BBSW lawsuit as to UBS and certain other foreign defendants for lack of personal jurisdiction. Plaintiffs filed an amended complaint in April 2019, which UBS and other defendants moved to dismiss in May 2019. In February 2020, the court granted in part and denied in part defendants' motions to dismiss the amended complaint. In August 2020, UBS and other BBSW defendants joined a motion for judgment on the pleadings, which the court denied in May 2021. In February 2022, plaintiffs reached a settlement in principle with the remaining defendants, including UBS. The court granted final approval of the settlement in November 2022.

GBP LIBOR – The court dismissed the GBP LIBOR action in August 2019. Plaintiffs have appealed.

Note 17 Provisions and contingent liabilities (continued)

Government bonds: Putative class actions have been filed since 2015 in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. A consolidated complaint was filed in 2017 in the US District Court for the Southern District of New York alleging that the banks colluded with respect to, and manipulated prices of, US Treasury securities sold at auction and in the secondary market and asserting claims under the antitrust laws and for unjust enrichment. Defendants' motions to dismiss the consolidated complaint were granted in March 2021. Plaintiffs filed an amended complaint, which defendants moved to dismiss in June 2021. In March 2022, the court granted defendants' motion to dismiss that complaint. Plaintiffs have appealed the dismissal. Similar class actions have been filed concerning European government bonds and other government bonds.

In May 2021, the European Commission issued a decision finding that UBS and six other banks breached European Union antitrust rules in 2007–2011 relating to European government bonds. The European Commission fined UBS EUR 172m. UBS is appealing the amount of the fine.

With respect to additional matters and jurisdictions not encompassed by the settlements and orders referred to above, our balance sheet at 31 December 2022 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

6. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third-party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver. FINMA issued a supervisory note to all Swiss banks in response to the Supreme Court decision. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and continues to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among other things, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

Our balance sheet at 31 December 2022 reflected a provision with respect to matters described in this item 6 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

7. Communications recordkeeping

The SEC and CFTC conducted investigations of UBS and other financial institutions regarding compliance with records preservation requirements relating to business communications sent over unapproved electronic messaging channels. UBS cooperated with the investigations, and, in September 2022, UBS agreed to pay civil monetary penalties of USD 125m to the SEC and USD 75m to the CFTC to resolve these matters.

Note 18 Other liabilities

a) Other financial liabilities measured at amortized cost

<i>USD m</i>	31.12.22	31.12.21
Other accrued expenses	1,564	1,642
Accrued interest expenses	2,008	1,134
Settlement and clearing accounts	1,060	1,282
Lease liabilities	3,211	3,438
Other	2,549	2,269
Total other financial liabilities measured at amortized cost	10,391	9,765

b) Other financial liabilities designated at fair value

<i>USD m</i>	31.12.22	31.12.21
Financial liabilities related to unit-linked investment contracts	13,221	21,466
Securities financing transactions	15,333	6,377
Over-the-counter debt instruments and other	1,684	2,231
Funding from UBS Group AG	1,796	2,340
Total other financial liabilities designated at fair value	32,033	32,414

c) Other non-financial liabilities

<i>USD m</i>	31.12.22	31.12.21
Compensation-related liabilities	4,424	4,795
<i>of which: financial advisor compensation plans</i>	1,463	1,512
<i>of which: other compensation plans</i>	2,023	2,140
<i>of which: net defined benefit liability</i>	449	617
<i>of which: other compensation-related liabilities¹</i>	490	526
Current tax liabilities	1,044	1,365
Deferred tax liabilities	233	297
VAT, withholding tax and other tax payables	472	524
Deferred income	233	225
Liabilities of disposal group held for sale ²		1,298
Other	84	68
Total other non-financial liabilities	6,489	8,572

1 Includes liabilities for payroll taxes and untaken vacation.

2 Refer to Note 29 for more information.

Additional information

Note 19 Expected credit loss measurement

a) Expected credit losses in the period

Total net credit loss expenses were USD 29m in 2022, reflecting net credit loss expenses of USD 29m related to stage 1 and 2 positions and USD 0m net credit loss expenses related to credit-impaired (stage 3) positions.

Stage 1 and 2 expected credit loss (ECL) expenses of USD 29m include USD 123m expenses related to scenario and parameter updates and USD 13m related to other book quality and size changes, partly offset by USD 77m post-model adjustment (PMA) releases and USD 30m releases related to model changes. Lending to corporate clients not secured by mortgages contributed USD 21m, mainly driven by scenario effects related to the downward revision of GDP and higher interest rate assumptions in the newly introduced stagflationary geopolitical crisis scenario (SGC). Lending secured by mortgages contributed USD 16m in expenses, mainly driven by scenario effects related to higher interest rate assumptions, especially from the SGC, and adverse house price assumptions from both applied downside scenarios. This was partly offset by releases from other lending of USD 9m.

- **Refer to Note 19b for more information regarding changes to ECL models, scenarios, scenario weights and the post-model adjustment and to Note 19c for more information regarding the development of ECL allowances and provisions**

Stage 3 net expenses of USD 0m were recognized across a number of defaulted positions, with net expenses of USD 12m in Personal and Corporate Banking and USD 5m in Global Wealth Management, offset by releases of USD 18m in the Investment Bank, including a USD 28m release for a single airline-related counterparty, mainly due to improved cashflow assumptions, and USD 10m net expenses across a number of defaulted positions.

Credit loss expense / (release)

<i>USD m</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
For the year ended 31.12.22						
Stages 1 and 2	(5)	27	0	6	1	29
Stage 3	5	12	0	(18)	2	0
Total credit loss expense / (release)	0	39	0	(12)	3	29
For the year ended 31.12.21						
Stages 1 and 2	(28)	(62)	0	(34)	0	(123)
Stage 3	(1)	(24)	1	0	0	(25)
Total credit loss expense / (release)	(29)	(86)	1	(34)	0	(148)
For the year ended 31.12.20						
Stages 1 and 2	48	129	0	88	0	266
Stage 3	40	128	2	217	42	429
Total credit loss expense / (release)	88	257	2	305	42	695

Note 19 Expected credit loss measurement (continued)

b) Changes to ECL models, scenarios, scenario weights and key inputs

Refer to Note 1a for information about the principles governing expected credit loss (ECL) models, scenarios, scenario weights and key inputs applied.

Governance

Comprehensive cross-functional and cross-divisional governance processes are in place and are used to discuss and approve scenario updates and weights, to assess whether significant increases in credit risk resulted in stage transfers, to review model outputs and to reach conclusions regarding post-model adjustments.

Model changes

During 2022, the model review and enhancement process led to adjustments of the probability of default (PD), loss given default (LGD), and credit conversion factor (CCF) models, resulting in a USD 30m decrease in ECL allowances. This includes a decrease of USD 19m in Global Wealth Management affecting loans to financial advisors and specialized US lending portfolios and an USD 11m decrease in Personal & Corporate Banking related to lending to *large corporate clients* and *financial intermediaries & hedge funds*.

Scenario and key input updates

During 2022, the scenarios and related macroeconomic factors were updated from those applied at the end of 2021 by considering the prevailing economic and political conditions and uncertainty. The review focused on events that significantly changed the economic outlook during the year: the Russia–Ukraine war, with the subsequent effect on energy markets, the inflation outlook and economic growth in Europe, and rising global interest rates due to central banks' adoption of more restrictive monetary policies.

Baseline scenario: the projections of the baseline scenario, which are aligned to the economic and market assumptions used for UBS AG's business planning purposes, are broadly in line with external data, such as that from Bloomberg Consensus, Oxford Economics and the International Monetary Fund World Economic Outlook. The expectation for 2023 is that global growth stalls under the weight of monetary policy tightening, and continued pressure on real purchasing power due to high inflation – further fueled in Europe by the energy crisis and a lack of labor supply – even though unemployment rates are forecast to be higher than in 2022 and an energy crisis in Europe seems likely to be averted. Interest rates are expected to remain high, given the persistence of inflationary trends, leading to a less optimistic outlook for global house prices, which is cushioned in Switzerland by continued strong demand.

Global crisis scenario: The first hypothetical downside scenario, the global crisis scenario, is aligned with the UBS AG's 2022 binding stress scenario and was updated in 2022 to reflect expected risks, resulting in minimal changes. It assumes that, while the global economy has returned to pre-pandemic levels and the immediate risks from COVID-19 have decreased, the associated disruptions and the consequences of the unprecedented monetary and fiscal stimulus measures will remain critical. Concerns regarding the sustainability of public debt, following the marked deterioration of fiscal positions, lead to a loss of confidence and market turbulence, while protectionism results in a decrease in global trade. Governments and central banks have limited scope to support the economies, and interest rate levels remain moderate. As a consequence, China suffers a hard landing which, combined with political, solvency and liquidity concerns, affects emerging markets significantly. A spillover effect leads to a contraction of the Eurozone, Swiss and US economies, as global demand is significantly affected. Given the severity of the macroeconomic impact, unemployment rates rise to historical highs and real estate sectors contract sharply.

Stagflationary geopolitical crisis scenario: The second downside scenario was changed during 2022. In light of the developments caused by Russia's invasion of Ukraine, the *mild global interest rate steepening scenario* was replaced by a *severe global interest rate steepening scenario* in the first quarter of 2022, as the beginning of the Russia–Ukraine war increased fears of higher inflation and a corresponding reaction by monetary authorities. In the second quarter of the year, the progression of the war and the enforcement of sanctions regimes led to a redesign of the scenario. The resulting *severe Russia–Ukraine conflict scenario* has similar dynamics as the severe global interest rate steepening scenario, but addressed specifically the prospect of rising energy costs, especially in Europe, with the consequences of lower growth and higher inflation rates. In the fourth quarter of 2022, UBS developed a new *stagflationary geopolitical crisis scenario* (SGC) and included this new scenario in the ECL calculation for year-end 2022 in lieu of the *severe Russia–Ukraine conflict scenario*. While the SGC scenario addresses similar risks as the *severe Russia–Ukraine conflict scenario*, it also covers additional and broader risks and therefore assumes more severe shocks. Geopolitical tensions cause an escalation of security concerns and undermine globalization. The ensuing economic regionalization leads to a surge in global commodity prices and further disruptions of supply chains and raises the specter of prolonged stagflation. The severe interest rate and adverse house price assumptions in the SGC scenario had a substantive impact on model-based ECL allowances for loans secured by mortgages in Switzerland and the US. These effects were partly offset by PMA releases related to loans secured by mortgages. Refer to the section below on "Scenario weights and post-model adjustments" for more details.

Asset price inflation scenario: The upside scenario is based on positive developments, such as an easing of geopolitical tensions across the globe and a rebound in Chinese economic growth. A combination of lower energy and commodity prices, effective monetary policies and easing supply chain disruptions helps reduce inflation. Improved consumer and business sentiment lead to an economic rebound with central banks able to normalize interest rates; asset prices increase significantly.

Note 19 Expected credit loss measurement (continued)

The table below details the key assumptions for the four scenarios applied as of 31 December 2022.

Scenario weights and post-model adjustments

Due to the less positive outlook compared with the assessment on 31 December 2021, the scenario weights changed during 2022. The upside scenario was allocated a 0% probability, and the previous 5% weight was added to the *baseline scenario*, now set at 60%. Following the introduction of the SGC, which was deemed to have a higher probability of occurring than the *global crisis scenario*, the weights were rebalanced. The SGC has a weight of 25% (compared with 10% for the *mild global interest rate steepening scenario* used as of 31 December 2021) and the weight of the *global crisis scenario* was reduced to 15% (from 30% as of 31 December 2021). The weights are also shown in the table below.

The scenarios and weight allocation were established in line with the general market sentiment that the short-term outlook is subdued and a recession in major markets is a strong probability. The downside risks in relation to inflation and monetary policy, as well as the availability and price of energy, mainly in Europe, are better reflected in our models compared with the uncertain developments caused by COVID-19 in recent years.

However, unquantifiable risks continue to be relevant, as the pandemic has not been overcome and the world may face new disruptions. Furthermore, the geopolitical situation worsened during 2022, and the impact on the world economy from escalations with unforeseeable consequences could be severe. In the near term, this uncertainty relates primarily to the development of the Russia–Ukraine war. Models, which are based on supportable statistical information from past experiences regarding interdependencies of macroeconomic factors and their implications for credit risk portfolios, cannot comprehensively reflect such extraordinary events, such as a pandemic or a fundamental change in the world political order. Rather than creating multiple additional scenarios to attempt gauging these risks and applying model parameters that lack supportable information and cannot be robustly validated, management continued to also apply PMAs.

These PMA took into account that more of the downside risks were modeled in 2022, particularly for lending secured by mortgages. The PMA amounted to USD 131m as of 31 December 2022 (31 December 2021: USD 224m). These remaining PMA for uncertainties on potentially unmodeled risk almost entirely relate to corporate lending portfolios in Personal & Corporate Banking and the Investment Bank.

Economic scenarios and weights applied

ECL scenario	Assigned weights in %	
	31.12.22	31.12.21
Asset price inflation	0.0	5.0
Baseline	60.0	55.0
Mild global interest rate steepening	0.0	10.0
Stagflationary geopolitical crisis	25.0	0.0
Global crisis	15.0	30.0

Scenario assumptions

31.12.22	One year				Three years cumulative			
	Asset price inflation	Baseline	Stagflationary geopolitical crisis	Global crisis	Asset price inflation	Baseline	Stagflationary geopolitical crisis	Global crisis
Real GDP growth (% change)								
United States	4.0	(0.3)	(4.8)	(6.4)	9.1	3.2	(4.4)	(1.8)
Eurozone	3.0	0.6	(5.6)	(8.5)	6.2	2.5	(5.7)	(8.3)
Switzerland	3.0	0.7	(4.8)	(6.7)	6.6	3.5	(4.9)	(3.7)
Consumer price index (% change)								
United States	2.5	2.6	10.0	(0.5)	8.1	6.5	15.8	1.2
Eurozone	2.3	5.0	9.6	(0.7)	7.4	9.6	14.8	(0.7)
Switzerland	2.1	1.6	5.8	(1.8)	6.2	3.9	10.7	(1.6)
Unemployment rate (end-of-period level, %)								
United States	3.0	3.9	9.2	10.0	3.0	5.3	11.8	9.4
Eurozone	6.0	7.0	10.9	11.9	6.0	7.1	12.2	13.0
Switzerland	1.7	2.3	4.3	4.4	1.5	2.6	5.1	4.9
Fixed income: 10-year government bonds (change in yields, basis points)								
USD	25.0	(5.6)	235.0	(326.0)	70.0	(13.2)	205.0	(291.1)
EUR	20.0	47.8	250.0	(270.6)	57.5	44.7	220.0	(246.5)
CHF	25.0	45.7	220.0	(209.7)	62.5	57.0	205.0	(159.6)
Equity indices (% change)								
S&P 500	20.0	7.4	(51.5)	(50.0)	51.7	22.8	(45.6)	(27.9)
EuroStoxx 50	17.0	17.2	(51.6)	(50.0)	42.9	29.2	(47.2)	(39.3)
SPI	14.0	5.6	(51.6)	(46.0)	37.9	19.3	(47.2)	(32.9)

Swiss real estate (% change)								
Single-Family Homes	6.6	1.1	(16.7)	(19.9)	14.0	2.3	(32.9)	(23.9)
Other real estate (% change)								
United States (S&P / Case-Shiller)	7.8	(4.5)	(12.8)	(19.3)	19.1	(0.6)	(35.8)	(32.7)
Eurozone (House Price Index)	7.0	(2.7)	(8.4)	(8.9)	15.4	2.0	(14.7)	(17.5)

Note 19 Expected credit loss measurement (continued)

Scenario assumptions	One year				Three years cumulative			
	Asset price inflation	Baseline	Mild global interest rate steepening	Global crisis	Asset price inflation	Baseline	Mild global interest rate steepening	Global crisis
31.12.21								
Real GDP growth (% change)								
United States	9.1	4.4	(0.1)	(5.9)	17.8	10.1	1.8	(3.8)
Eurozone	9.4	3.9	(0.1)	(8.7)	17.3	7.5	0.9	(10.3)
Switzerland	5.5	2.4	(0.9)	(6.6)	13.1	5.8	(0.1)	(5.7)
Consumer price index (% change)								
United States	3.1	2.2	5.7	(1.2)	9.5	6.3	13.0	0.4
Eurozone	2.3	1.4	4.2	(1.3)	8.0	4.8	10.4	(1.7)
Switzerland	1.8	0.3	3.5	(1.8)	6.1	1.7	9.0	(1.6)
Unemployment rate (end-of-period level, %)								
United States	3.0	3.9	6.1	10.9	3.0	3.5	7.2	10.8
Eurozone	6.2	7.4	8.7	12.9	6.0	7.2	9.1	15.1
Switzerland	2.3	2.5	3.4	5.2	1.6	2.3	4.2	5.9
Fixed income: 10-year government bonds (change in yields, basis points)								
USD	50.0	16.5	259.2	(50.0)	170.0	41.2	329.2	(15.0)
EUR	40.0	11.1	283.8	(35.0)	140.0	34.9	349.3	(25.0)
CHF	50.0	12.1	245.5	(70.0)	150.0	34.4	307.3	(35.0)
Equity indices (% change)								
S&P 500	12.0	14.1	(27.0)	(50.2)	35.5	24.7	(21.8)	(40.1)
EuroStoxx 50	16.0	12.3	(23.4)	(57.6)	41.6	20.7	(19.9)	(50.4)
SPI	14.0	12.1	(22.9)	(53.6)	37.9	19.1	(19.6)	(44.2)
Swiss real estate (% change)								
Single-Family Homes	5.1	4.4	(4.3)	(17.0)	15.5	7.4	(8.8)	(30.0)
Other real estate (% change)								
United States (S&P / Case-Shiller)	10.0	3.5	(2.3)	(9.5)	21.7	7.1	(8.7)	(26.3)
Eurozone (House Price Index)	8.4	5.1	(4.0)	(5.4)	17.8	9.6	(7.6)	(10.8)

c) Development of ECL allowances and provisions

The ECL allowances and provisions recognized in the period are impacted by a variety of factors, such as:

- the effect of selecting and updating forward-looking scenarios and the respective weights;
- origination of new instruments during the period;
- the effect of passage of time (lower residual lifetime PD and the effect of discount unwind) as the ECL on an instrument for the remaining lifetime decreases (all other factors remaining the same);
- derecognition of instruments in the period;
- change in individual asset quality of instruments;
- movements from a maximum 12-month ECL to the recognition of lifetime ECL (and vice versa) following transfers between stages 1 and 2;
- movements from stages 1 and 2 to stage 3 (credit-impaired status) when default has become certain and PD increases to 100% (or vice versa);
- changes in models or updates to model parameters;
- write-off; and
- foreign exchange translations for assets denominated in foreign currencies.

Note 19 Expected credit loss measurement (continued)

The table below explains the changes in the ECL allowances and provisions for on- and off-balance sheet financial instruments and credit lines in scope of ECL requirements between the beginning and the end of the period due to the factors listed above.

Development of ECL allowances and provisions

<i>USD m</i>	Total	Stage 1	Stage 2	Stage 3
Balance as of 31 December 2021	(1,165)	(282)	(220)	(662)
Net movement from new and derecognized transactions¹	(7)	(21)	16	(2)
<i>of which: Private clients with mortgages</i>	(6)	(6)	0	0
<i>of which: Real estate financing</i>	(3)	(5)	2	0
<i>of which: Large corporate clients</i>	8	(1)	11	(2)
<i>of which: SME clients</i>	(1)	(1)	0	0
<i>of which: Other</i>	(6)	(8)	3	0
<i>of which: Financial intermediaries and hedge funds</i>	0	(2)	2	0
<i>of which: Loans to financial advisors</i>	0	0	0	0
Remeasurements with stage transfers²	(65)	20	(39)	(46)
<i>of which: Private clients with mortgages</i>	(10)	3	(12)	0
<i>of which: Real estate financing</i>	7	(1)	8	0
<i>of which: Large corporate clients</i>	(33)	16	(28)	(21)
<i>of which: SME clients</i>	(23)	2	(2)	(22)
<i>of which: Other</i>	(6)	1	(4)	(3)
<i>of which: Financial intermediaries and hedge funds</i>	0	0	0	0
<i>of which: Loans to financial advisors</i>	1	2	(1)	0
Remeasurements without stage transfers³	13	(8)	(27)	48
<i>of which: Private clients with mortgages</i>	(12)	5	(18)	1
<i>of which: Real estate financing</i>	13	3	10	0
<i>of which: Large corporate clients</i>	32	(11)	2	41
<i>of which: SME clients</i>	(6)	(10)	(9)	14
<i>of which: Other</i>	(15)	5	(12)	(8)
<i>of which: Sovereigns</i>	(8)	0	(8)	0
<i>of which: Loans to financial advisors</i>	(3)	3	(1)	(6)
Model changes⁴	30	29	1	0
Movements with profit or loss impact⁵	(29)	20	(49)	0
Movements without profit or loss impact (write-off, FX and other)⁶	104	3	1	99
Balance as of 31 December 2022	(1,091)	(260)	(267)	(564)

- 1 Represents the increase and decrease in allowances and provisions resulting from financial instruments (including guarantees and facilities) that were newly originated, purchased or renewed and from the final derecognition of loans or facilities on their maturity date or earlier.
- 2 Represents the remeasurement between 12-month and lifetime ECL due to stage transfers.
- 3 Represents the change in allowances and provisions related to changes in model inputs or assumptions, including changes in forward-looking macroeconomic conditions, changes in the exposure profile, PD and LGD changes, and unwinding of the time value.
- 4 Represents the change in the allowances and provisions related to changes in models and methodologies.
- 5 Includes ECL movements from new and derecognized transactions, remeasurement changes, model and methodology changes.
- 6 Represents the decrease in allowances and provisions resulting from write-offs of the ECL allowance against the gross carrying amount when all or part of a financial asset is deemed uncollectible or forgiven and movements in foreign exchange rates.

Movements with profit or loss impact: Stages 1 and 2 ECL allowances and provisions increased on a net basis by USD 29m:

- *Net movement from new and derecognized transactions* includes USD 21m stage 1 expenses and USD 16m stage 2 releases: Stage 1 expenses are primarily driven by new loans secured by real estate. The residual effect is spread across lending segments. Stage 2 releases are largely driven by redemption of corporate loans in the Investment Bank.
- *Remeasurements with stage transfers* include USD 20m releases in stage 1 and USD 39m expenses in stage 2. This mainly includes the transfer of a few large corporate lending transactions in the Investment Bank from stage 1 to 2 (i.e., releases in stage 1 and related but generally higher expenses in stage 2), driven by rating downgrades and scenario effects.
- *Remeasurements without stage transfers* include stage 1 expenses of USD 8m and stage 2 expenses of USD 27m. These expenses of USD 35m relate to large and SME corporate lending (USD 28m), substantially due to scenario effects, and to a single sovereign counterparty (USD 8m).
- Model changes: refer to Note 19b for more information.

Movements without profit or loss impact: Stage 3 allowances decreased by USD 99m almost entirely due to write-offs of USD 95m.

Note 19 Expected credit loss measurement (continued)

Development of ECL allowances and provisions

<i>USD m</i>	Total	Stage 1	Stage 2	Stage 3
Balance as of 31 December 2020	(1,468)	(306)	(333)	(829)
Net movement from new and derecognized transactions¹	(59)	(72)	13	0
<i>of which: Private clients with mortgages</i>	(7)	(10)	3	0
<i>of which: Real estate financing</i>	(7)	(11)	4	0
<i>of which: Large corporate clients</i>	(13)	(21)	7	0
<i>of which: SME clients</i>	(8)	(8)	0	0
<i>of which: Other</i>	(24)	(23)	(2)	0
<i>of which: Financial intermediaries and hedge funds</i>	(21)	(18)	(4)	0
<i>of which: Loans to financial advisors</i>	0	(1)	1	0
Remeasurements with stage transfers²	(40)	8	0	(49)
<i>of which: Private clients with mortgages</i>	(9)	4	(13)	0
<i>of which: Real estate financing</i>	(3)	1	(4)	0
<i>of which: Large corporate clients</i>	2	(2)	12	(8)
<i>of which: SME clients</i>	(27)	5	4	(36)
<i>of which: Other</i>	(3)	0	2	(4)
<i>of which: Financial intermediaries and hedge funds</i>	2	(1)	3	0
<i>of which: Loans to financial advisors</i>	0	1	(1)	0
Remeasurements without stage transfers³	203	55	74	74
<i>of which: Private clients with mortgages</i>	33	8	26	(1)
<i>of which: Real estate financing</i>	30	13	13	3
<i>of which: Large corporate clients</i>	44	5	21	17
<i>of which: SME clients</i>	53	(1)	1	53
<i>of which: Other</i>	44	29	14	2
<i>of which: Financial intermediaries and hedge funds</i>	27	15	12	0
<i>of which: Loans to financial advisors</i>	6	8	1	(3)
Model changes⁴	45	29	16	0
Movements with profit or loss impact⁵	148	19	104	25
Movements without profit or loss impact (write-off, FX and other)⁶	154	5	9	141
Balance as of 31 December 2021	(1,165)	(282)	(220)	(662)

- 1 Represents the increase and decrease in allowances and provisions resulting from financial instruments (including guarantees and facilities) that were newly originated, purchased or renewed and from the final derecognition of loans or facilities on their maturity date or earlier.
- 2 Represents the remeasurement between 12-month and lifetime ECL due to stage transfers.
- 3 Represents the change in allowances and provisions related to changes in model inputs or assumptions, including changes in forward-looking macroeconomic conditions, changes in the exposure profile, PD and LGD changes, and unwinding of the time value.
- 4 Represents the change in the allowances and provisions related to changes in models and methodologies.
- 5 Includes ECL movements from new and derecognized transactions, remeasurement changes, model and methodology changes.
- 6 Represents the decrease in allowances and provisions resulting from write-offs of the ECL allowance against the gross carrying amount when all or part of a financial asset is deemed uncollectible or forgiven and movements in foreign exchange rates.

As explained in Note 1a, the assessment of a significant increase in credit risk (SICR) considers a number of qualitative and quantitative factors to determine whether a stage transfer between stage 1 and stage 2 is required, although the primary assessment considers changes in PD based on rating analyses and economic outlook. Additionally, UBS AG takes into consideration counterparties that have moved to a credit watch list and those with payments that are at least 30 days past due.

ECL stage 2 (“significant deterioration in credit risk”) allowances / provisions as of 31 December 2022 – classification by trigger

<i>USD m</i>	Stage 2	<i>of which: PD layer</i>	<i>of which: watch list</i>	<i>of which: ≥30 days past due</i>
On- and off-balance sheet	(267)	(196)	(21)	(50)
<i>of which: Private clients with mortgages</i>	(107)	(83)	0	(25)
<i>of which: Real estate financing</i>	(23)	(18)	0	(5)
<i>of which: Large corporate clients</i>	(65)	(51)	(13)	0
<i>of which: SME clients</i>	(37)	(22)	(7)	(7)
<i>of which: Financial intermediaries and hedge funds</i>	(17)	(17)	0	0
<i>of which: Loans to financial advisors</i>	(2)	0	0	(2)

<i>of which: Credit cards</i>	(12)	0	0	(12)
<i>of which: Other</i>	(5)	(5)	0	0

Note 19 Expected credit loss measurement (continued)

d) Maximum exposure to credit risk

The tables below provide UBS AG's maximum exposure to credit risk for financial instruments subject to ECL requirements and the respective collateral and other credit enhancements mitigating credit risk for these classes of financial instruments.

The maximum exposure to credit risk includes the carrying amounts of financial instruments recognized on the balance sheet subject to credit risk and the notional amounts for off-balance sheet arrangements. Where information is available, collateral is presented at fair value. For other collateral, such as real estate, a reasonable alternative value is used. Credit enhancements, such as credit derivative contracts and guarantees, are included at their notional amounts. Both are capped at the maximum exposure to credit risk for which they serve as security. The "Risk management and control" section of this report describes management's view of credit risk and the related exposures, which can differ in certain respects from the requirements of International Financial Reporting Standards (IFRS).

Maximum exposure to credit risk

	31.12.22								Exposure to credit risk after collateral and credit enhancements
	Maximum exposure to credit risk	Collateral ^{1,2}			Credit enhancements ¹				
		Cash collateral received	Collateralized by equity and debt instruments	Secured by real estate	Other collateral ³	Netting	Credit derivative contracts	Guarantees	
<i>USD bn</i>									
Financial assets measured at amortized cost on the balance sheet									
Cash and balances at central banks	169.4								169.4
Loans and advances to banks ⁴	14.7		0.0					0.1	14.6
Receivables from securities financing transactions measured at amortized cost	67.8	0.0	64.5		2.4				0.9
Cash collateral receivables on derivative instruments ^{5,6}	35.0					22.9			12.1
Loans and advances to customers	390.0	36.1	115.9	197.8	19.6			3.0	17.6
Other financial assets measured at amortized cost	53.4	0.1	0.5	0.0	1.3				51.4
Total financial assets measured at amortized cost	730.4	36.2	181.0	197.9	23.4	22.9	0.0	3.0	266.1
Financial assets measured at fair value through other comprehensive income – debt	2.2								2.2
Total maximum exposure to credit risk reflected on the balance sheet within the scope of ECL	732.6	36.2	181.0	197.9	23.4	22.9	0.0	3.0	268.3
Guarantees ⁷	22.1	1.2	9.3	0.1	2.0			1.8	7.7
Loan commitments ⁷	39.9	0.2	3.1	1.3	6.5		0.1	1.0	27.8
Forward starting transactions, reverse repurchase and securities borrowing agreements	3.8		3.8						0.0
Committed unconditionally revocable credit lines	43.6	0.2	8.2	6.0	6.2			0.5	22.5
Total maximum exposure to credit risk not reflected on the balance sheet within the scope of ECL	109.4	1.6	24.4	7.5	14.7	0.0	0.1	3.3	58.0
31.12.21									
	Maximum exposure to credit risk	Collateral ^{1,2}			Credit enhancements ¹			Exposure to credit risk after collateral and credit enhancements	
		Cash collateral received	Collateralized by equity and debt instruments	Secured by real estate	Other collateral ³	Netting	Credit derivative contracts	Guarantees	
<i>USD bn</i>									
Financial assets measured at amortized cost on the balance sheet									
Cash and balances at central banks	192.8								192.8
Loans and advances to banks ⁴	15.4		0.1					0.1	15.1
Receivables from securities financing transactions measured at amortized cost	75.0	0.0	68.0		6.9				0.0

Cash collateral receivables on derivative instruments ^{5,6}	30.5					18.4			12.1
Loans and advances to customers	398.7	38.2	128.7	191.3	20.2			4.0	16.4
Other financial assets measured at amortized cost	26.2	0.2	0.1	0.0	1.3				24.7
Total financial assets measured at amortized cost	738.6	38.4	196.9	191.3	28.4	18.4	0.0	4.0	261.1
Financial assets measured at fair value through other comprehensive income – debt	8.8								8.8
Total maximum exposure to credit risk reflected on the balance sheet within the scope of ECL	747.5	38.4	196.9	191.3	28.4	18.4	0.0	4.0	270.0
Guarantees ⁷	20.9	1.3	6.5	0.2	2.5			2.3	8.1
Loan commitments ⁷	39.4	0.5	4.0	2.4	7.3		0.3	1.7	23.1
Forward starting transactions, reverse repurchase and securities borrowing agreements	1.4		1.4						0.0
Committed unconditionally revocable credit lines	42.3	0.3	9.0	6.2	3.9			0.5	22.5
Total maximum exposure to credit risk not reflected on the balance sheet within the scope of ECL	104.1	2.2	20.9	8.7	13.7	0.0	0.3	4.5	53.7

- 1 Of which: USD 1,372m for 31 December 2022 (31 December 2021: USD 1,443m) relates to total credit-impaired financial assets measured at amortized cost and USD 113m for 31 December 2022 (31 December 2021: USD 130m) to total off-balance sheet financial instruments and credit lines for credit-impaired positions.
- 2 Collateral arrangements generally incorporate a range of collateral, including cash, equity and debt instruments, real estate and other collateral. UBS AG applies a risk-based approach that generally prioritizes collateral according to its liquidity profile.
- 3 Includes but is not limited to life insurance contracts, inventory, mortgage loans, gold and other commodities.
- 4 Loans and advances to banks include amounts held with third-party banks on behalf of clients. The credit risk associated with these balances may be borne by those clients.
- 5 Included within Cash collateral receivables on derivative instruments are margin balances due from exchanges or clearing houses. Some of these margin balances reflect amounts transferred on behalf of clients who retain the associated credit risk.
- 6 The amount shown in the “Netting” column represents the netting potential not recognized on the balance sheet. Refer to Note 21 for more information.
- 7 The amount shown in the “Guarantees” column includes sub-participations.

Note 19 Expected credit loss measurement (continued)

e) Financial assets subject to credit risk by rating category

The table below shows the credit quality and the maximum exposure to credit risk based on the UBS AG's internal credit rating system and year-end stage classification. Under IFRS 9, the credit risk rating reflects the UBS AG's assessment of the probability of default of individual counterparties, prior to substitutions. The amounts presented are gross of impairment allowances.

- Refer to the "Risk management and control" section of this report for more details regarding the UBS AG's internal grading system

Financial assets subject to credit risk by rating category

<i>USD m</i>		31.12.22							
Rating category ¹	0-1	2-3	4-5	6-8	9-13	Credit-impaired (defaulted)	Total gross carrying amount	ECL allowances	Net carrying amount (maximum exposure to credit risk)
Financial assets measured at amortized cost									
Cash and balances at central banks	168,525	877	0	0	56	0	169,457	(12)	169,445
of which: stage 1	168,525	877	0	0	0	0	169,402	0	169,402
of which: stage 2	0	0	0	0	56	0	56	(12)	44
Loans and advances to banks	862	11,150	832	996	837	0	14,676	(6)	14,671
of which: stage 1	862	11,150	832	996	836	0	14,675	(5)	14,670
of which: stage 2	0	0	0	0	1	0	1	(1)	1
of which: stage 3	0	0	0	0	0	0	0	0	0
Receivables from securities financing transactions measured at amortized cost	27,158	15,860	8,870	15,207	721	0	67,816	(2)	67,814
of which: stage 1	27,158	15,860	8,870	15,207	721	0	67,816	(2)	67,814
Cash collateral receivables on derivative instruments	10,613	12,978	7,138	4,157	147	0	35,034	0	35,033
of which: stage 1	10,613	12,978	7,138	4,157	147	0	35,034	0	35,033
Loans and advances to customers	6,491	216,824	68,444	76,147	20,891	2,012	390,810	(783)	390,027
of which: stage 1	6,491	215,332	66,202	69,450	15,557	0	373,032	(129)	372,903
of which: stage 2	0	1,493	2,242	6,698	5,334	0	15,767	(180)	15,587
of which: stage 3	0	0	0	0	0	2,012	2,012	(474)	1,538
Other financial assets measured at amortized cost	29,011	16,649	447	6,708	450	210	53,475	(86)	53,389
of which: stage 1	29,011	16,646	427	6,426	336	0	52,846	(17)	52,829
of which: stage 2	0	2	20	283	114	0	419	(6)	413
of which: stage 3	0	0	0	0	0	210	210	(63)	147
Total financial assets measured at amortized cost	242,660	274,337	85,731	103,216	23,102	2,222	731,269	(890)	730,379
On-balance sheet financial instruments									
Financial assets measured at FVOCI – debt instruments	1,307	840	0	92	0	0	2,239	0	2,239
Total on-balance sheet financial instruments	243,966	275,178	85,731	103,308	23,102	2,222	733,508	(890)	732,618

Off-balance sheet positions subject to expected credit loss by rating category

<i>USD m</i>		31.12.22							
Rating category ¹	0-1	2-3	4-5	6-8	9-13	Credit-impaired (defaulted)	Total off-balance sheet exposure (maximum exposure to credit risk)	ECL provisions	
Off-balance sheet financial instruments									
Guarantees		7,252	5,961	4,772	3,049	1,025	108	22,167	(48)
of which: stage 1		7,252	5,917	3,812	2,229	596	0	19,805	(13)
of which: stage 2		0	44	960	821	429	0	2,254	(9)
of which: stage 3		0	0	0	0	0	108	108	(26)
Irrevocable loan commitments		1,770	14,912	6,986	10,097	6,107	124	39,996	(111)
of which: stage 1		1,770	14,789	6,818	9,625	4,529	0	37,531	(59)
of which: stage 2		0	123	168	472	1,578	0	2,341	(52)
of which: stage 3		0	0	0	0	0	124	124	0

Forward starting reverse repurchase and securities borrowing agreements	2,781	2	11	1,007	0	0	3,801	0
Total off-balance sheet financial instruments	11,803	20,874	11,769	14,153	7,132	233	65,964	(159)
Credit lines								
Committed unconditionally revocable credit lines	2,288	16,483	9,247	11,885	3,739	36	43,677	(40)
<i>of which: stage 1</i>	2,288	15,777	8,960	11,355	3,429	0	41,809	(32)
<i>of which: stage 2</i>	0	705	287	531	310	0	1,833	(8)
<i>of which: stage 3</i>	0	0	0	0	0	36	36	0
Irrevocable committed prolongation of existing loans	7	1,939	1,489	868	392	2	4,696	(2)
<i>of which: stage 1</i>	7	1,938	1,411	864	380	0	4,600	(2)
<i>of which: stage 2</i>	0	1	78	4	11	0	94	0
<i>of which: stage 3</i>	0	0	0	0	0	2	2	0
Total credit lines	2,295	18,421	10,736	12,753	4,131	37	48,373	(42)

1 Refer to the “Internal UBS rating scale and mapping of external ratings” table in the “Risk management and control” section of this report for more information on rating categories.

Note 19 Expected credit loss measurement (continued)

Financial assets subject to credit risk by rating category

		31.12.21							
Rating category ¹	0-1	2-3	4-5	6-8	9-13	Credit-impaired (defaulted)	Total gross carrying amount	ECL allowances	Net carrying amount (maximum exposure to credit risk)
Financial assets measured at amortized cost									
Cash and balances at central banks	191,015	1,802	0	0	0	0	192,817	0	192,817
<i>of which: stage 1</i>	<i>191,015</i>	<i>1,802</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>192,817</i>	<i>0</i>	<i>192,817</i>
Loans and advances to banks	407	12,552	1,123	795	490	1	15,368	(8)	15,360
<i>of which: stage 1</i>	<i>407</i>	<i>12,552</i>	<i>1,098</i>	<i>795</i>	<i>488</i>	<i>0</i>	<i>15,340</i>	<i>(7)</i>	<i>15,333</i>
<i>of which: stage 2</i>	<i>0</i>	<i>0</i>	<i>24</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>27</i>	<i>(1)</i>	<i>26</i>
<i>of which: stage 3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>1</i>
Receivables from securities financing transactions measured at amortized cost	34,386	11,267	10,483	17,440	1,439	0	75,014	(2)	75,012
<i>of which: stage 1</i>	<i>34,386</i>	<i>11,267</i>	<i>10,483</i>	<i>17,440</i>	<i>1,439</i>	<i>0</i>	<i>75,014</i>	<i>(2)</i>	<i>75,012</i>
Cash collateral receivables on derivative instruments	7,466	13,476	5,878	3,647	47	0	30,514	0	30,514
<i>of which: stage 1</i>	<i>7,466</i>	<i>13,476</i>	<i>5,878</i>	<i>3,647</i>	<i>47</i>	<i>0</i>	<i>30,514</i>	<i>0</i>	<i>30,514</i>
Loans and advances to customers	5,295	232,663	67,620	70,394	21,423	2,148	399,543	(850)	398,693
<i>of which: stage 1</i>	<i>5,295</i>	<i>231,583</i>	<i>65,083</i>	<i>63,298</i>	<i>16,362</i>	<i>0</i>	<i>381,622</i>	<i>(126)</i>	<i>381,496</i>
<i>of which: stage 2</i>	<i>0</i>	<i>1,080</i>	<i>2,536</i>	<i>7,096</i>	<i>5,061</i>	<i>0</i>	<i>15,773</i>	<i>(152)</i>	<i>15,620</i>
<i>of which: stage 3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>2,148</i>	<i>2,148</i>	<i>(572)</i>	<i>1,577</i>
Other financial assets measured at amortized cost	12,564	6,705	321	6,097	394	264	26,346	(109)	26,236
<i>of which: stage 1</i>	<i>12,564</i>	<i>6,696</i>	<i>307</i>	<i>5,887</i>	<i>317</i>	<i>0</i>	<i>25,772</i>	<i>(27)</i>	<i>25,746</i>
<i>of which: stage 2</i>	<i>0</i>	<i>10</i>	<i>13</i>	<i>209</i>	<i>77</i>	<i>0</i>	<i>309</i>	<i>(7)</i>	<i>302</i>
<i>of which: stage 3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>264</i>	<i>264</i>	<i>(76)</i>	<i>189</i>
Total financial assets measured at amortized cost	251,133	278,465	85,424	98,372	23,793	2,414	739,601	(969)	738,632
On-balance sheet financial instruments									
Financial assets measured at FVOCI – debt instruments	3,996	4,771	0	77	0	0	8,844	0	8,844
Total on-balance sheet financial instruments	255,130	283,236	85,424	98,449	23,793	2,414	748,445	(969)	747,477

Off-balance sheet positions subject to expected credit loss by rating category

		31.12.21							
Rating category ¹	0-1	2-3	4-5	6-8	9-13	Credit-impaired (defaulted)	Total off-balance sheet exposure (maximum exposure to credit risk)	ECL provisions	
Off-balance sheet financial instruments									
Guarantees	4,457	7,064	4,535	3,757	1,009	150	20,972	(41)	
<i>of which: stage 1</i>	<i>4,457</i>	<i>7,037</i>	<i>4,375</i>	<i>3,075</i>	<i>752</i>	<i>0</i>	<i>19,695</i>	<i>(18)</i>	
<i>of which: stage 2</i>	<i>0</i>	<i>27</i>	<i>160</i>	<i>682</i>	<i>258</i>	<i>0</i>	<i>1,127</i>	<i>(8)</i>	
<i>of which: stage 3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>150</i>	<i>150</i>	<i>(15)</i>	
Irrevocable loan commitments	2,797	14,183	7,651	8,298	6,502	46	39,478	(114)	
<i>of which: stage 1</i>	<i>2,797</i>	<i>13,917</i>	<i>7,416</i>	<i>7,127</i>	<i>5,840</i>	<i>0</i>	<i>37,097</i>	<i>(72)</i>	
<i>of which: stage 2</i>	<i>0</i>	<i>266</i>	<i>235</i>	<i>1,171</i>	<i>663</i>	<i>0</i>	<i>2,335</i>	<i>(42)</i>	
<i>of which: stage 3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>46</i>	<i>46</i>	<i>0</i>	
Forward starting reverse repurchase and securities borrowing agreements	0	0	55	1,389	0	0	1,444	0	
Total off balance sheet financial instruments	7,254	21,247	12,241	13,444	7,512	196	61,894	(155)	
Credit lines									
Committed unconditionally revocable credit lines	2,636	16,811	8,627	10,130	4,107	63	42,373	(38)	
<i>of which: stage 1</i>	<i>2,636</i>	<i>16,467</i>	<i>8,304</i>	<i>8,724</i>	<i>3,671</i>	<i>0</i>	<i>39,802</i>	<i>(28)</i>	
<i>of which: stage 2</i>	<i>0</i>	<i>344</i>	<i>323</i>	<i>1,406</i>	<i>436</i>	<i>0</i>	<i>2,508</i>	<i>(10)</i>	
<i>of which: stage 3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>63</i>	<i>63</i>	<i>0</i>	
Irrevocable committed prolongation of existing loans	17	2,438	1,422	1,084	602	48	5,611	(3)	
<i>of which: stage 1</i>	<i>17</i>	<i>2,438</i>	<i>1,422</i>	<i>1,082</i>	<i>568</i>	<i>0</i>	<i>5,527</i>	<i>(3)</i>	

<i>of which: stage 2</i>	0	0	0	1	34	0	36	0
<i>of which: stage 3</i>	0	0	0	0	0	48	48	0
Total credit lines	2,653	19,249	10,049	11,214	4,709	111	47,984	(41)

1 Refer to the “Internal UBS rating scale and mapping of external ratings” table in the “Risk management and control” section of this report for more information on rating categories.

Note 19 Expected credit loss measurement (continued)

f) Sensitivity information

As outlined in Note 1a, ECL estimates involve significant uncertainties at the time they are made.

ECL models

The models applied to determine point-in-time PD and LGD rely on market and statistical data, which has been found to correlate well with historically observed defaults in sufficiently homogeneous segments. The risk sensitivities for each of the ECL reporting segments to such factors are summarized in Note 9.

Sustainability and climate risk

Sustainability and climate risk (SCR) may negatively affect clients or portfolios due to direct or indirect transition costs, or exposure to physical risks in locations likely to be impacted by climate change. Such effects could lead to a deterioration in credit worthiness, which in turn would have an impact on ECLs.

While some indicators that are more influenced by climate change (e.g., energy prices) are factored into the current PD models where they have demonstrated statistical relevance, UBS AG currently does not use a specific SCR scenario in addition to the four general economic scenarios applied to derive the weighted-average ECL. The rationale for the approach at this point in time is the significance of model risks and challenges in calibration and probability weight assessment given the paucity of data.

Instead, UBS AG focuses on the process of vetting clients and business transactions and takes individual actions, where transition risk is deemed to be a significant driver of a counterparty's credit worthiness. This review process may lead to a downward revision of the counterparty's credit rating, or the adoption of risk mitigating actions, and hence affect the individual contribution to ECLs.

At the portfolio level, UBS AG has started to use stress loss assumptions to assess the extent to which SCR may affect the quality of the loans extended to small and medium-sized entities and large corporate clients. Initial tests were based on a set of assumptions presented by external parties (such as the Bank of England). Such analysis undertaken during 2022 concluded that the counterparties are not expected to be significantly impacted by physical or transition risks, mainly as there are no material risk concentrations in high-risk sectors. The analysis of the corporate loan book has also shown that any potential significant impacts from transition costs or physical risks would materialize over a time horizon that exceeds in most cases the contractual lifetime of the underlying assets. Based on current information on regulatory developments, this would also apply to the portfolio of private clients' mortgages and real estate financing, given the long lead times for investments in upgrading the housing stock.

As a result of the aforementioned factors, it was assessed that the magnitude of any impact of SCR on the weighted-average ECL would not be material as of 31 December 2022. Therefore, no specific post-model adjustment was made in this regard.

- **Refer to “Sustainability and climate risk” in the “Risk management and control” section of this report**
- **Refer to “Our focus on sustainability and climate” in the “Our strategy, business model and environment” section of this report**
- **Refer to “UBS AG consolidated supplemental disclosures required under SEC regulations” for the maturity profile of UBS core loan book**

Forward-looking scenarios

Depending on the scenario selection and related macroeconomic assumptions for the risk factors, the components of the relevant weighted-average ECL change. This is particularly relevant for interest rates, which can move in both directions under a given growth assumption, e.g., low growth with high interest rates in a stagflation scenario, versus low growth and falling interest rates in a recession. Management generally looks for scenario narratives that reflect the key risk drivers of a given credit portfolio.

As forecasting models are complex, due to the combination of multiple factors, simple what-if analyses involving a change of individual parameters do not necessarily provide realistic information on the exposure of segments to changes in the macroeconomy. Portfolio-specific analyses based on their key risk factors would also not be meaningful, as potential compensatory effects in other segments would be ignored. The table below indicates some sensitivities to ECLs, if a key macroeconomic variable for the forecasting period is amended across all scenarios with all other factors remaining unchanged.

Note 19 Expected credit loss measurement (continued)

Potential effect on stage 1 and stage 2 positions from changing key parameters as of 31 December 2022

<i>USD m</i>	100% Baseline	100% Stagflationary geopolitical crisis	100% Global crisis	Weighted average
Change in key parameters				
Fixed income: Government bonds (absolute change)				
-0.50%	(3)	(106)	(2)	(14)
+0.50%	4	124	2	17
+1.00%	8	264	10	37
Unemployment rate (absolute change)				
-1.00%	(4)	(138)	(24)	(23)
-0.50%	(2)	(78)	(13)	(12)
+0.50%	3	84	16	15
+1.00%	5	179	32	31
Real GDP growth (relative change)				
-2.00%	7	13	18	11
-1.00%	3	7	9	5
+1.00%	(3)	(7)	(9)	(5)
+2.00%	(5)	(13)	(18)	(10)
House Price Index (relative change)				
-5.00%	15	196	88	56
-2.50%	7	92	40	25
+2.50%	(4)	(83)	(35)	(19)
+5.00%	(7)	(157)	(65)	(36)
Equity (S&P500, EuroStoxx, SMI) (relative change)				
-10.00%	4	7	6	5
-5.00%	2	3	3	2
+5.00%	(2)	(4)	(3)	(2)
+10.00%	(4)	(8)	(7)	(5)

Sensitivities can be more meaningfully assessed in the context of coherent scenarios with consistently developed macroeconomic factors. The table above outlines favorable and unfavorable effects, based on reasonably possible alternative changes to the economic conditions for stage 1 and stage 2 positions. The ECL impact is calculated for material portfolios and disclosed for each scenario.

The forecasting horizon is limited to three years, with a model-based mean reversion of PD and LGD assumed thereafter. Changes to these timelines may have an effect on ECLs: depending on the cycle, a longer or shorter forecasting horizon will lead to different annualized lifetime PD and average LGD estimations. This is currently not deemed to be material for UBS, as a large proportion of loans, including mortgages in Switzerland, have maturities that are within the forecasting horizon.

Scenario weights and stage allocation

Potential effect on stage 1 and stage 2 positions from changing scenario weights or moving to an ECL lifetime calculation as of 31 December 2022

Scenarios	Actual ECL allowances and provisions, including staging (as per Note 9)	Pro forma ECL allowances and provisions, including staging and assuming application of 100% scenario weighting				Pro forma ECL allowances and provisions, assuming all positions being subject to lifetime ECL
		100% Baseline	100% Asset price inflation	100% Stagflationary geopolitical crisis	100% Global crisis	
<i>USD m, except where indicated</i>	Weighted average	100% Baseline	100% Asset price inflation	100% Stagflationary geopolitical crisis	100% Global crisis	Weighted average
Segmentation						
Private clients with mortgages	(136)	(25)	(13)	(523)	(184)	(473)
Real estate financing	(43)	(26)	(22)	(176)	(30)	(126)
Large corporate clients	(136)	(97)	(84)	(199)	(174)	(235)

SME clients	(86)	(67)	(66)	(162)	(97)	(153)
Other segments	(125)	(114)	(111)	(145)	(153)	(281)
Total	(526)	(329)	(295)	(1,204)	(638)	(1,267)

Scenario weights

ECL is sensitive to changing scenario weights, in particular if narratives and parameters are selected that are not close to the baseline scenario, highlighting the non-linearity of credit losses.

As shown in the table above, the ECLs for stage 1 and stage 2 positions would have been USD 329m (31 December 2021: USD 387m) instead of USD 526m (31 December 2021: USD 503m) if ECLs had been determined solely on the *baseline scenario*. The weighted-average ECL therefore amounted to 160% (31 December 2021: 130%) of the baseline value. The effects of weighting each of the four scenarios 100% are shown in the table above.

Note 19 Expected credit loss measurement (continued)

Stage allocation and SICR

The determination of what constitutes an SICR is based on management judgment, as explained in Note 1a. Changing the SICR trigger will have a direct effect on ECLs, as more or fewer positions would be subject to lifetime ECLs under any scenario.

The relevance of the SICR trigger on overall ECL is demonstrated in the table above with the indication that the ECL allowances and provisions for stage 1 and stage 2 positions would have been USD 1,267m, if all non-impaired positions across the portfolio had been measured for lifetime ECLs irrespective of their actual SICR status. This amount compares with actual stage 1 and 2 allowances and provisions of USD 526m as of 31 December 2022.

Maturity profile

The maturity profile is an important driver in ECLs, in particular for transactions in stage 2. A transfer of a transaction into stage 2 may therefore have a significant effect on ECLs. The current maturity profile of most lending books is relatively short.

Lending to large corporate clients is generally between one and two years, with related loan commitments up to four years. Real estate lending is generally between two and three years in Switzerland, with long dated maturities in the US. Lombard-lending contracts typically have average contractual maturities of 12 months or less, and include callable features.

A significant portion of our lending to SMEs and Real estate financings is documented under multi-purpose credit agreements, which allow for various forms of utilization but are unconditionally cancelable by UBS at any time: a) for drawings under such agreements with a fixed maturity, the respective term is applied for ECL calculations, or a maximum of 12 months in stage 1; b) for unused credit lines and all drawings that have no fixed maturity (e.g., current accounts), UBS generally applies a 12-month maturity from the reporting date, given the credit review policies, which require either continuous monitoring of key indicators and behavioral patterns for smaller positions or an annual formal review for any other limit. The ECLs for these products are sensitive to shortening or extending the maturity assumption.

Note 20 Fair value measurement

a) Valuation principles

All financial and non-financial assets and liabilities measured or disclosed at fair value are categorized into one of three fair value hierarchy levels in accordance with International Financial Reporting Standards (IFRS). The fair value hierarchy is based on the transparency of inputs to the valuation of an asset or liability as of the measurement date. In certain cases, the inputs used to measure fair value may fall within different levels of the fair value hierarchy. For disclosure purposes, the level in the hierarchy within which an instrument is classified in its entirety is based on the lowest level input that is significant to the position's fair value measurement:

- Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities;
- Level 2 – valuation techniques for which all significant inputs are, or are based on, observable market data; or
- Level 3 – valuation techniques for which significant inputs are not based on observable market data.

Fair values are determined using quoted prices in active markets for identical assets or liabilities, where available. Where the market for a financial instrument or non-financial asset or liability is not active, fair value is established using a valuation technique, including pricing models. Valuation adjustments may be made to allow for additional factors, including model, liquidity, credit and funding risks, which are not explicitly captured within the valuation technique, but which would nevertheless be considered by market participants when establishing a price. The limitations inherent in a particular valuation technique are considered in the determination of the classification of an asset or liability within the fair value hierarchy. Generally, the unit of account for a financial instrument is the individual instrument, and UBS applies valuation adjustments at an individual instrument level, consistent with that unit of account. However, if certain conditions are met, UBS may estimate the fair value of a portfolio of financial assets and liabilities with substantially similar and offsetting risk exposures on the basis of the net open risks.

- **Refer to Note 20d for more information**

b) Valuation governance

UBS's fair value measurement and model governance framework includes numerous controls and other procedural safeguards that are intended to maximize the quality of fair value measurements reported in the financial statements. New products and valuation techniques must be reviewed and approved by key stakeholders from the risk and finance control functions. Responsibility for the ongoing measurement of financial and non-financial instruments at fair value is with the business divisions.

Note 20 Fair value measurement (continued)

Fair value estimates are validated by the risk and finance control functions, which are independent of the business divisions. Independent price verification is performed by Finance through benchmarking the business divisions' fair value estimates with observable market prices and other independent sources. A governance framework and associated controls are in place in order to monitor the quality of third-party pricing sources where used. For instruments where valuation models are used to determine fair value, independent valuation and model control groups within Finance and Risk Control evaluate UBS's models on a regular basis, including valuation and model input parameters, as well as pricing. As a result of the valuation controls employed, valuation adjustments may be made to the business divisions' estimates of fair value to align with independent market data and the relevant accounting standard.

- Refer to Note 20d for more information

c) Fair value hierarchy

The table below provides the fair value hierarchy classification of financial and non-financial assets and liabilities measured at fair value. The narrative that follows describes valuation techniques used in measuring their fair value of different product types (including significant valuation inputs and assumptions used), and the factors considered in determining their classification within the fair value hierarchy.

During 2022, assets and liabilities that were transferred from Level 2 to Level 1, or from Level 1 to Level 2, and were held for the entire reporting period were not material.

Determination of fair values from quoted market prices or valuation techniques¹

USD m	31.12.22				31.12.21			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value on a recurring basis								
Financial assets at fair value held for trading	96,263	10,284	1,488	108,034	113,722	15,012	2,299	131,033
<i>of which: Equity instruments</i>	83,095	789	126	84,010	97,983	1,090	149	99,222
<i>of which: Government bills / bonds</i>	5,496	950	18	6,464	7,135	1,351	10	8,496
<i>of which: Investment fund units</i>	6,673	596	61	7,330	7,843	1,364	21	9,229
<i>of which: Corporate and municipal bonds</i>	976	6,509	541	8,026	708	7,791	556	9,055
<i>of which: Loans</i>	0	1,179	628	1,807	0	3,099	1,443	4,542
<i>of which: Asset-backed securities</i>	22	261	114	397	53	317	120	489
Derivative financial instruments	769	147,876	1,464	150,109	522	116,482	1,140	118,145
<i>of which: Foreign exchange</i>	575	84,882	2	85,459	255	53,046	7	53,307
<i>of which: Interest rate</i>	0	39,345	460	39,805	0	32,747	494	33,241
<i>of which: Equity / index</i>	1	21,542	653	22,195	0	27,861	384	28,245
<i>of which: Credit</i>	0	719	318	1,038	0	1,179	236	1,414
<i>of which: Commodities</i>	0	1,334	30	1,365	0	1,590	16	1,606
Brokerage receivables	0	17,576	0	17,576	0	21,839	0	21,839
Financial assets at fair value not held for trading	26,572	29,110	3,725	59,408	27,278	28,185	4,180	59,642
<i>of which: Financial assets for unit-linked investment contracts</i>	13,071	1	0	13,072	21,110	187	6	21,303
<i>of which: Corporate and municipal bonds</i>	35	14,101	230	14,366	123	13,937	306	14,366
<i>of which: Government bills / bonds</i>	13,103	3,638	0	16,741	5,624	3,236	0	8,860
<i>of which: Loans</i>	0	3,602	736	4,337	0	4,982	892	5,874
<i>of which: Securities financing transactions</i>	0	7,590	114	7,704	0	5,704	100	5,804
<i>of which: Auction rate securities</i>	0	0	1,326	1,326	0	0	1,585	1,585
<i>of which: Investment fund units</i>	307	178	190	675	338	137	117	591
<i>of which: Equity instruments</i>	57	0	792	849	83	2	681	765
Financial assets measured at fair value through other comprehensive income on a recurring basis								
Financial assets measured at fair value through other comprehensive income	57	2,182	0	2,239	2,704	6,140	0	8,844
<i>of which: Asset-backed securities²</i>	0	0	0	0	0	4,849	0	4,849
<i>of which: Government bills / bonds²</i>	0	26	0	26	2,658	27	0	2,686
<i>of which: Corporate and municipal bonds</i>	57	2,156	0	2,213	45	1,265	0	1,310
Non-financial assets measured at fair value on a recurring basis								
Precious metals and other physical commodities	4,471	0	0	4,471	5,258	0	0	5,258
Non-financial assets measured at fair value on a non-recurring basis								

Other non-financial assets ³	<u>0</u>	<u>0</u>	<u>21</u>	<u>21</u>	<u>0</u>	<u>0</u>	<u>26</u>	<u>26</u>
Total assets measured at fair value	<u>128,132</u>	<u>207,028</u>	<u>6,698</u>	<u>341,858</u>	<u>149,484</u>	<u>187,658</u>	<u>7,645</u>	<u>344,787</u>

Note 20 Fair value measurement (continued)

Determination of fair values from quoted market prices or valuation techniques (continued)¹

USD m	31.12.22				31.12.21			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial liabilities measured at fair value on a recurring basis								
Financial liabilities at fair value held for trading	23,578	5,823	114	29,515	25,413	6,170	105	31,688
<i>of which: Equity instruments</i>	16,521	352	78	16,951	18,328	513	83	18,924
<i>of which: Corporate and municipal bonds</i>	36	4,643	27	4,707	30	4,219	17	4,266
<i>of which: Government bills / bonds</i>	5,880	706	1	6,587	5,883	826	0	6,709
<i>of which: Investment fund units</i>	1,141	84	3	1,229	1,172	555	6	1,733
Derivative financial instruments	640	152,582	1,684	154,906	509	118,558	2,242	121,309
<i>of which: Foreign exchange</i>	587	87,897	24	88,508	258	53,800	21	54,078
<i>of which: Interest rate</i>	0	37,429	116	37,545	0	28,398	278	28,675
<i>of which: Equity / index</i>	0	24,963	1,184	26,148	0	33,438	1,511	34,949
<i>of which: Credit</i>	0	920	279	1,199	0	1,412	341	1,753
<i>of which: Commodities</i>	0	1,309	52	1,361	0	1,503	63	1,566
Financial liabilities designated at fair value on a recurring basis								
Brokerage payables designated at fair value	0	45,085	0	45,085	0	44,045	0	44,045
Debt issued designated at fair value	0	62,603	9,240	71,842	0	59,606	11,854	71,460
Other financial liabilities designated at fair value	0	30,055	1,978	32,033	0	29,258	3,156	32,414
<i>of which: Financial liabilities related to unit-linked investment contracts</i>	0	13,221	0	13,221	0	21,466	0	21,466
<i>of which: Securities financing transactions</i>	0	15,333	0	15,333	0	6,375	2	6,377
<i>of which: Over-the-counter debt instruments and other</i>	0	993	691	1,684	0	1,417	814	2,231
Total liabilities measured at fair value	24,219	296,148	13,015	333,382	25,922	257,637	17,357	300,916

- 1 Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are not included in this table. The fair value of these derivatives was not material for the periods presented.
- 2 Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. Refer to Note 1 for more information.
- 3 Other non-financial assets primarily consist of properties and other non-current assets held for sale, which are measured at the lower of their net carrying amount or fair value less costs to sell.

Valuation techniques

UBS uses widely recognized valuation techniques for determining the fair value of financial and non-financial instruments that are not actively traded and quoted. The most frequently applied valuation techniques include discounted value of expected cash flows, relative value and option pricing methodologies.

Discounted value of expected cash flows is a valuation technique that measures fair value using estimated expected future cash flows from assets or liabilities and then discounts these cash flows using a discount rate or discount margin that reflects the credit and / or funding spreads required by the market for instruments with similar risk and liquidity profiles to produce a present value. When using such valuation techniques, expected future cash flows are estimated using an observed or implied market price for the future cash flows or by using industry-standard cash flow projection models. The discount factors within the calculation are generated using industry-standard yield curve modeling techniques and models.

Relative value models measure fair value based on the market prices of equivalent or comparable assets or liabilities, making adjustments for differences between the characteristics of the observed instrument and the instrument being valued.

Option pricing models incorporate assumptions regarding the behavior of future price movements of an underlying referenced asset or assets to generate a probability-weighted future expected payoff for the option. The resulting probability-weighted expected payoff is then discounted using discount factors generated from industry-standard yield curve modeling techniques and models. The option pricing model may be implemented using a closed-form analytical formula or other mathematical techniques (e.g., binomial tree or Monte Carlo simulation).

Where available, valuation techniques use market-observable assumptions and inputs. If such data is not available, inputs may be derived by reference to similar assets in active markets, from recent prices for comparable transactions or from other observable market data. In such cases, the inputs selected are based on historical experience and practice for similar or analogous instruments, derivation of input levels based on similar products with observable price levels, and knowledge of current market conditions and valuation approaches.

For more complex instruments, fair values may be estimated using a combination of observed transaction prices, consensus pricing services and relevant

quotes. Consideration is given to the nature of the quotes (e.g., indicative or firm) and the relationship of recently evidenced market activity to the prices provided by consensus pricing services. UBS also uses internally developed models, which are typically based on valuation methods and techniques recognized as standard within the industry. Assumptions and inputs used in valuation techniques include benchmark interest rate curves, credit and funding spreads used in estimating discount rates, bond and equity prices, equity index prices, foreign exchange rates, levels of market volatility and correlation. Refer to Note 20e for more information. The discount curves used by UBS incorporate the funding and credit characteristics of the instruments to which they are applied.

Note 20 Fair value measurement (continued)

Financial instruments excluding derivatives: valuation and classification in the fair value hierarchy

Product	Valuation and classification in the fair value hierarchy	
Government bills and bonds	Valuation	<ul style="list-style-type: none">• Generally valued using prices obtained directly from the market.• Instruments not priced directly using active-market data are valued using discounted cash flow valuation techniques that incorporate market data for similar government instruments.
	Fair value hierarchy	<ul style="list-style-type: none">• Generally traded in active markets with prices that can be obtained directly from these markets, resulting in classification as Level 1, while the remaining positions are classified as Level 2 and Level 3.
Corporate and municipal bonds	Valuation	<ul style="list-style-type: none">• Generally valued using prices obtained directly from the market for the security, or similar securities, adjusted for seniority, maturity and liquidity.• When prices are not available, instruments are valued using discounted cash flow valuation techniques incorporating the credit spread of the issuer or similar issuers.• For convertible bonds without directly comparable prices, issuances may be priced using a convertible bond model.
	Fair value hierarchy	<ul style="list-style-type: none">• Generally classified as Level 1 or Level 2, depending on the depth of trading activity behind price sources.• Level 3 instruments have no suitable pricing information available.
Traded loans and loans measured at fair value	Valuation	<ul style="list-style-type: none">• Valued directly using market prices that reflect recent transactions or quoted dealer prices, where available.• Where no market price data is available, loans are valued by relative value benchmarking using pricing derived from debt instruments in comparable entities or different products in the same entity, or by using a credit default swap valuation technique, which requires inputs for credit spreads, credit recovery rates and interest rates. Recently originated commercial real estate loans are measured using a securitization approach based on rating agency guidelines.
	Fair value hierarchy	<ul style="list-style-type: none">• Instruments with suitably deep and liquid pricing information are classified as Level 2.• Positions requiring the use of valuation techniques, or for which the price sources have insufficient trading depth, are classified as Level 3.
Investment fund units	Valuation	<ul style="list-style-type: none">• Predominantly exchange-traded, with readily available quoted prices in liquid markets.• Where market prices are not available, fair value may be measured using net asset values (NAVs).
	Fair value hierarchy	<ul style="list-style-type: none">• Listed units are classified as Level 1, provided there is sufficient trading activity to justify active-market classification, while other positions are classified as Level 2.• Positions for which NAVs are not available are classified as Level 3.
Asset-backed securities (ABS)	Valuation	<ul style="list-style-type: none">• For liquid securities, the valuation process will use trade and price data, updated for movements in market levels between the time of trading and the time of valuation. Less liquid instruments are measured using discounted expected cash flows incorporating price data for instruments or indices with similar risk profiles.
	Fair value hierarchy	<ul style="list-style-type: none">• Residential mortgage-backed securities, commercial mortgage-backed securities and other ABS are generally classified as Level 2. However, if significant inputs are unobservable, or if market or fundamental data is not available, they are classified as Level 3.
Auction rate securities (ARS)	Valuation	<ul style="list-style-type: none">• ARS are valued utilizing a discounted cash flow methodology. The model captures interest rate risk emanating from the note coupon, credit risk attributable to the underlying closed-end fund investments, liquidity risk as a function of the level of trading volume in these positions, and extension risk, as ARS are perpetual instruments that require an assumption regarding their maturity or issuer redemption date.
	Fair value hierarchy	<ul style="list-style-type: none">• Granular and liquid pricing information is generally not available for ARS. As a result, these securities are classified as Level 3.
Equity instruments	Valuation	<ul style="list-style-type: none">• Listed equity instruments are generally valued using prices obtained directly from the market.• Unlisted equity holdings, including private equity positions, are initially marked at their transaction price and are revalued when reliable evidence of price movement becomes available or when the position is deemed to be impaired.

	Fair value hierarchy	<ul style="list-style-type: none"> • The majority of equity securities are actively traded on public stock exchanges where quoted prices are readily and regularly available, resulting in Level 1 classification. • Equity securities less actively traded will be classified as Level 2 and illiquid positions as Level 3.
Financial assets for unit-linked investment contracts	Valuation Fair value hierarchy	<ul style="list-style-type: none"> • The majority of assets are listed on exchanges and fair values are determined using quoted prices. • Most assets are classified as Level 1 if actively traded, or Level 2 if trading is not active. • Instruments for which prices are not readily available are classified as Level 3.
Securities financing transactions	Valuation Fair value hierarchy	<ul style="list-style-type: none"> • These instruments are valued using discounted expected cash flow techniques. The discount rate applied is based on funding curves that are relevant to the collateral eligibility terms. • Collateral funding curves for these instruments are generally observable and, as a result, these positions are classified as Level 2. • Where the collateral terms are non-standard, the funding curve may be considered unobservable and these positions are classified as Level 3.
Brokerage receivables and payables	Valuation Fair value hierarchy	<ul style="list-style-type: none"> • Fair value is determined based on the value of the underlying balances. • Due to their on-demand nature, these receivables and payables are deemed as Level 2.

Note 20 Fair value measurement (continued)

<u>Product</u>	<u>Valuation and classification in the fair value hierarchy</u>	
Financial liabilities related to unit-linked investment contracts	Valuation	<ul style="list-style-type: none"> The fair values of investment contract liabilities are determined by reference to the fair value of the corresponding assets.
	Fair value hierarchy	<ul style="list-style-type: none"> The liabilities themselves are not actively traded, but are mainly referenced to instruments that are actively traded and are therefore classified as Level 2.
Precious metals and other physical commodities	Valuation	<ul style="list-style-type: none"> Physical assets are valued using the spot rate observed in the relevant market.
	Fair value hierarchy	<ul style="list-style-type: none"> Generally traded in active markets with prices that can be obtained directly from these markets, resulting in classification as Level 1.
Debt issued designated at fair value	Valuation	<ul style="list-style-type: none"> The risk management and the valuation approaches for these instruments are closely aligned with the equivalent derivatives business and the underlying risk, and the valuation techniques used for this component are the same as the relevant valuation techniques described below.
	Fair value hierarchy	<ul style="list-style-type: none"> The observability is closely aligned with the equivalent derivatives business and the underlying risk.

Derivative instruments: valuation and classification in the fair value hierarchy

The curves used for discounting expected cash flows in the valuation of collateralized derivatives reflect the funding terms associated with the relevant collateral arrangement for the instrument being valued. These collateral arrangements differ across counterparties with respect to the eligible currency and interest terms of the collateral. The majority of collateralized derivatives are measured using a discount curve based on funding rates derived from overnight interest in the cheapest eligible currency for the respective counterparty collateral agreement.

Uncollateralized and partially collateralized derivatives are discounted using the alternative reference rate (the ARR) (or equivalent) curve for the currency of the instrument. As described in Note 20d, the fair value of uncollateralized and partially collateralized derivatives is then adjusted by credit valuation adjustments (CVAs), debit valuation adjustments (DVAs) and funding valuation adjustments (FVAs), as applicable, to reflect an estimation of the effect of counterparty credit risk, UBS's own credit risk, and funding costs and benefits.

- **Refer to Note 10 for more information about derivative instruments**

<u>Derivative product</u>	<u>Valuation and classification in the fair value hierarchy</u>	
Interest rate contracts	Valuation	<ul style="list-style-type: none"> Interest rate swap contracts are valued by estimating future interest cash flows and discounting those cash flows using a rate that reflects the appropriate funding rate for the position being measured. The yield curves used to estimate future index levels and discount rates are generated using market-standard yield curve models using interest rates associated with current market activity. The key inputs to the models are interest rate swap rates, forward rate agreement rates, short-term interest rate futures prices, basis swap spreads and inflation swap rates. Interest rate option contracts are valued using various market-standard option models, using inputs that include interest rate yield curves, inflation curves, volatilities and correlations. When the maturity of an interest rate swap or option contract exceeds the term for which standard market quotes are observable for a significant input parameter, the contracts are valued by extrapolation from the last observable point using standard assumptions or by reference to another observable comparable input parameter to represent a suitable proxy for that portion of the term.
	Fair value hierarchy	<ul style="list-style-type: none"> The majority of interest rate swaps are classified as Level 2, as the standard market contracts that form the inputs for yield curve models are generally traded in active and observable markets. Options are generally treated as Level 2, as the calibration process enables the model output to be validated to active-market levels. Models calibrated in this way are then used to revalue the portfolio of both standard options and more exotic products. Interest rate swap or option contracts are classified as Level 3 when the terms exceed standard market-observable quotes. Exotic options for which appropriate volatility or correlation input levels cannot be implied from observable market data are classified as Level 3.

Credit derivative contracts Valuation

- Credit derivative contracts are valued using industry-standard models based primarily on market credit spreads, upfront pricing points and implied recovery rates. Where a derivative credit spread is not directly available, it may be derived from the price of the reference cash bond.
- Asset-backed credit derivatives are valued using a valuation technique similar to that of the underlying security with an adjustment to reflect the funding differences between cash and synthetic form.

Fair value hierarchy

- Single-entity and portfolio credit derivative contracts are classified as Level 2 when credit spreads and recovery rates are determined from actively traded observable market data. Where the underlying reference name(s) are not actively traded and the correlation cannot be directly mapped to actively traded tranche instruments, these contracts are classified as Level 3.
- Asset-backed credit derivatives follow the characteristics of the underlying security and are therefore distributed across Level 2 and Level 3.

Note 20 Fair value measurement (continued)

Derivative product	Valuation and classification in the fair value hierarchy	
Foreign exchange contracts	Valuation	<ul style="list-style-type: none">• Open spot foreign exchange (FX) contracts are valued using the FX spot rate observed in the market.• Forward FX contracts are valued using the FX spot rate adjusted for forward pricing points observed from standard market-based sources.• Over-the-counter (OTC) FX option contracts are valued using market-standard option valuation models. The models used for shorter-dated options (i.e., maturities of five years or less) tend to be different than those used for longer-dated options because the models needed for longer-dated OTC FX contracts require additional consideration of interest rate and FX rate interdependency.• The valuation for multi-dimensional FX options uses a multi-local volatility model, which is calibrated to the observed FX volatilities for all relevant FX pairs.
	Fair value hierarchy	<ul style="list-style-type: none">• The markets for FX spot and FX forward pricing points are both actively traded and observable and therefore such FX contracts are generally classified as Level 2.• A significant proportion of OTC FX option contracts are classified as Level 2 as inputs are derived mostly from standard market contracts traded in active and observable markets.• OTC FX option contracts classified as Level 3 include multi-dimensional FX options and long-dated FX exotic option contracts where there is no active market from which to derive volatility or correlation inputs.
Equity / index contracts	Valuation	<ul style="list-style-type: none">• Equity forward contracts have a single stock or index underlying and are valued using market-standard models. The key inputs to the models are stock prices, estimated dividend rates and equity funding rates (which are implied from prices of forward contracts observed in the market). Estimated cash flows are then discounted using market-standard discounted cash flow models using a rate that reflects the appropriate funding rate for that portion of the portfolio. When no market data is available for the instrument maturity, they are valued by extrapolation of available data, use of historical dividend data, or use of data for a related equity.• Equity option contracts are valued using market-standard models that estimate the equity forward level as described for equity forward contracts and incorporate inputs for stock volatility and for correlation between stocks within a basket. The probability-weighted expected option payoff generated is then discounted using market-standard discounted cash flow models applying a rate that reflects the appropriate funding rate for that portion of the portfolio. When volatility, forward or correlation inputs are not available, they are valued using extrapolation of available data, historical dividend, correlation or volatility data, or the equivalent data for a related equity.
	Fair value hierarchy	<ul style="list-style-type: none">• As inputs are derived mostly from standard market contracts traded in active and observable markets, a significant proportion of equity forward contracts are classified as Level 2.• Equity option positions for which inputs are derived from standard market contracts traded in active and observable markets are also classified as Level 2. Level 3 positions are those for which volatility, forward or correlation inputs are not observable.
Commodity contracts	Valuation	<ul style="list-style-type: none">• Commodity forward and swap contracts are measured using market-standard models that use market forward levels on standard instruments.• Commodity option contracts are measured using market-standard option models that estimate the commodity forward level as described for commodity forward and swap contracts, incorporating inputs for the volatility of the underlying index or commodity. For commodity options on baskets of commodities or bespoke commodity indices, the valuation technique also incorporates inputs for the correlation between different commodities or commodity indices.
	Fair value hierarchy	<ul style="list-style-type: none">• Individual commodity contracts are typically classified as Level 2, because active forward and volatility market data is available.

d) Valuation adjustments and other items

The output of a valuation technique is always an estimate of a fair value that cannot be measured with complete certainty. As a result, valuations are adjusted where appropriate and when such factors would be considered by market participants in estimating fair value, to reflect close-out costs, credit exposure, model-driven valuation uncertainty, funding costs and benefits, trading restrictions and other factors.

Deferred day-1 profit or loss reserves

For new transactions where the valuation technique used to measure fair value requires significant inputs that are not based on observable market data, the financial instrument is initially recognized at the transaction price. The transaction price may differ from the fair value obtained using a valuation technique, where any such difference is deferred and not initially recognized in the income statement.

Deferred day-1 profit or loss is generally released into *Other net income from financial instruments measured at fair value through profit or loss* when pricing of equivalent products or the underlying parameters becomes observable or when the transaction is closed out.

The table below summarizes the changes in deferred day-1 profit or loss reserves during the respective period.

Note 20 Fair value measurement (continued)

Deferred day-1 profit or loss reserves

<i>USD m</i>	2022	2021	2020
Reserve balance at the beginning of the year	418	269	146
Profit / (loss) deferred on new transactions	299	459	362
(Profit) / loss recognized in the income statement	(295)	(308)	(238)
Foreign currency translation	0	(2)	0
Reserve balance at the end of the year	422	418	269

Own credit

Own credit risk is reflected in the valuation of UBS's fair value option liabilities where this component is considered relevant for valuation purposes by UBS's counterparties and other market participants.

Changes in the fair value of financial liabilities designated at fair value through profit or loss related to own credit are recognized in *Other comprehensive income* directly within *Retained earnings, with no reclassification to the income statement in future periods*. This presentation does not create or increase an accounting mismatch in the income statement, as UBS does not hedge changes in own credit.

Own credit is estimated using own credit adjustment (OCA) curves, which incorporate observable market data, including market-observed secondary prices for UBS's debt and debt curves of peers. In the table below, the change in unrealized own credit consists of changes in fair value that are attributable to the change in UBS's credit spreads, as well as the effect of changes in fair values attributable to factors other than credit spreads, such as redemptions, effects from time decay and changes in interest and other market rates. Realized own credit is recognized when an instrument with an associated unrealized OCA is repurchased prior to the contractual maturity date. Life-to-date amounts reflect the cumulative > unrealized change since initial recognition.

- **Refer to Note 15 for more information about debt issued designated at fair value**

Own credit adjustments on financial liabilities designated at fair value

<i>USD m</i>	Included in Other comprehensive income		
	For the year ended		
	31.12.22	31.12.21	31.12.20
Recognized during the period:			
Realized gain / (loss)	1	(14)	2
Unrealized gain / (loss)	866	60	(295)
Total gain / (loss), before tax	867	46	(293)
<i>USD m</i>	31.12.22	31.12.21	31.12.20
Recognized on the balance sheet as of the end of the period:			
Unrealized life-to-date gain / (loss)	556	(315)	(381)
<i>of which: debt issued designated at fair value</i>	289	(144)	(233)
<i>of which: other financial liabilities designated at fair value</i>	266	(172)	(148)

Credit valuation adjustments

In order to measure the fair value of OTC derivative instruments, including funded derivative instruments that are classified as Financial assets at fair value not held for trading, CVAs are needed to reflect the credit risk of the counterparty inherent in these instruments. This amount represents the estimated fair value of protection required to hedge the counterparty credit risk of such instruments. A CVA is determined for each counterparty, considering all exposures with that counterparty, and is dependent on the expected future value of exposures, default probabilities and recovery rates, applicable collateral or netting arrangements, break clauses, funding spreads, and other contractual factors.

Funding valuation adjustments

FVAs reflect the costs and benefits of funding associated with uncollateralized and partially collateralized derivative receivables and payables and are calculated as the valuation effect from moving the discounting of the uncollateralized derivative cash flows from the ARR to OCA using the CVA framework, including the probability of counterparty default. An FVA is also applied to collateralized derivative assets in cases where the collateral cannot be sold or repledged.

Note 20 Fair value measurement (continued)

Debit valuation adjustments

A DVA is estimated to incorporate own credit in the valuation of derivatives where an FVA is not already recognized. The DVA calculation is effectively consistent with the CVA framework, being determined for each counterparty, considering all exposures with that counterparty and taking into account collateral netting agreements, expected future mark-to-market movements and UBS's credit default spreads.

Other valuation adjustments

Instruments that are measured as part of a portfolio of combined long and short positions are valued at mid-market levels to ensure consistent valuation of the long- and short-component risks. A liquidity valuation adjustment is then made to the overall net long or short exposure to move the fair value to bid or offer as appropriate, reflecting current levels of market liquidity. The bid-offer spreads used in the calculation of this valuation adjustment are obtained from market transactions and other relevant sources and are updated periodically.

Uncertainties associated with the use of model-based valuations are incorporated into the measurement of fair value through the use of model reserves. These reserves reflect the amounts that UBS estimates should be deducted from valuations produced directly by models to incorporate uncertainties in the relevant modeling assumptions, in the model and market inputs used, or in the calibration of the model output to adjust for known model deficiencies. In arriving at these estimates, UBS considers a range of market practices, including how it believes market participants would assess these uncertainties. Model reserves are reassessed periodically in light of data from market transactions, consensus pricing services and other relevant sources.

Balance sheet valuation adjustments on financial instruments

<i>USD m</i>	As of	
	31.12.22	31.12.21
Credit valuation adjustments¹	(33)	(44)
Funding valuation adjustments	(50)	(49)
Debit valuation adjustments	4	2
Other valuation adjustments	(839)	(913)
<i>of which: liquidity</i>	(311)	(341)
<i>of which: model uncertainty</i>	(529)	(571)

1 Amounts do not include reserves against defaulted counterparties.

Other items

In the first half of 2021, UBS AG incurred a loss of USD 861m as a result of closing out a significant portfolio of swaps with a US-based client of its prime brokerage business and the unwinding of related hedges, following the client's default. This loss is presented within *Other net income from financial instruments measured at fair value through profit or loss*.

Note 20 Fair value measurement (continued)

e) Level 3 instruments: valuation techniques and inputs

The table below presents material Level 3 assets and liabilities, together with the valuation techniques used to measure fair value, the inputs used in a given valuation technique that are considered significant as of 31 December 2022 and unobservable, and a range of values for those unobservable inputs.

The range of values represents the highest- and lowest-level inputs used in the valuation techniques. Therefore, the range does not reflect the level of uncertainty regarding a particular input or an assessment of the reasonableness of UBS's estimates and assumptions, but rather the different underlying characteristics of the relevant assets and liabilities held by UBS. The ranges will therefore vary from period to period and parameter to parameter based on characteristics of the instruments held at each balance sheet date. Furthermore, the ranges of unobservable inputs may differ across other financial institutions, reflecting the diversity of the products in each firm's inventory.

Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities

	Fair value				Valuation technique(s)	Significant unobservable input(s) ¹	Range of inputs						
	Assets		Liabilities				31.12.22			31.12.21			unit ¹
USD bn	31.12.22	31.12.21	31.12.22	31.12.21		low	high	weighted average ²	low	high	weighted average ²		
Financial assets and liabilities at fair value held for trading and Financial assets at fair value not held for trading													
<i>Corporate and municipal bonds</i>					Relative value to market comparable	Bond price equivalent	14	112	85	16	143	98	points
	0.8	0.9	0.0	0.0	Discounted expected cash flows	Discount margin	412	412		434	434		basis points
<i>Traded loans, loans measured at fair value, loan commitments and guarantees</i>					Relative value to market comparable	Loan price equivalent	30	100	97	0	101	99	points
	1.7	2.8	0.0	0.0	Discounted expected cash flows	Credit spread	200	200	200	175	800	436	basis points
					Market comparable and securitization model	Credit spread	145	1,350	322	28	1,544	241	basis points
<i>Auction rate securities</i>					Discounted expected cash flows	Credit spread	115	196	144	115	197	153	basis points
<i>Investment fund units³</i>					Relative value to market comparable	Net asset value							
<i>Equity instruments³</i>					Relative value to market comparable	Price							
Debt issued designated at fair value⁴			9.2	11.9									
Other financial liabilities designated at fair value			2.0	3.2	Discounted expected cash flows	Funding spread	23	175		24	175		basis points
Derivative financial instruments													
<i>Interest rate</i>					Option model	Volatility of interest rates	75	143		65	81		basis points
<i>Credit</i>					Discounted expected cash flows	Credit spreads	9	565		1	583		basis points
	0.3	0.2	0.3	0.3	Bond price equivalent		3	277		2	136		points
<i>Equity / index</i>					Equity dividend yields		0	20		0	11		%
	0.7	0.4	1.2	1.5	Option model	Volatility of equity stocks, equity and other indices	4	120		4	98		%
						Equity-to-FX correlation	(29)	84		(29)	76		%
						Equity-to-equity correlation	(25)	100		(25)	100		%

1 The ranges of significant unobservable inputs are represented in points, percentages and basis points. Points are a percentage of par (e.g., 100 points would be 100% of par).

2 Weighted averages are provided for most non-derivative financial instruments and were calculated by weighting inputs based on the fair values of the respective instruments. Weighted averages are not provided for inputs related to Other financial liabilities designated at fair value and Derivative financial instruments, as this would not be meaningful.

3 The range of inputs is not disclosed, as there is a dispersion of values given the diverse nature of the investments.

4 Debt issued designated at fair value primarily consists of UBS structured notes, which include variable maturity notes with various equity and foreign exchange underlying risks, rates-linked and credit-linked notes, all of which have embedded derivative parameters that are considered to be unobservable. The equivalent derivative instrument parameters are presented in the respective derivative financial instruments lines in this table.

Note 20 Fair value measurement (continued)

Significant unobservable inputs in Level 3 positions

This section discusses the significant unobservable inputs used in the valuation of Level 3 instruments and assesses the potential effect that a change in each unobservable input in isolation may have on a fair value measurement. Relationships between observable and unobservable inputs have not been included in the summary below.

<u>Input</u>	<u>Description</u>
Bond price equivalent	<ul style="list-style-type: none">• Where market prices are not available for a bond, fair value is measured by comparison with observable pricing data from similar instruments. Factors considered when selecting comparable instruments include credit quality, maturity and industry of the issuer. Fair value may be measured either by a direct price comparison or by conversion of an instrument price into a yield (either as an outright yield or as a spread to the relevant benchmark rate).• For corporate and municipal bonds, the range represents the range of prices from reference issuances used in determining fair value. Bonds priced at 0 are distressed to the point that no recovery is expected, while prices significantly in excess of 100 or par relate to inflation-linked or structured issuances that pay a coupon in excess of the market benchmark as of the measurement date.• For credit derivatives, the bond price range represents the range of prices used for reference instruments, which are typically converted to an equivalent yield or credit spread as part of the valuation process.
Loan price equivalent	<ul style="list-style-type: none">• Where market prices are not available for a traded loan, fair value is measured by comparison with observable pricing data for similar instruments. Factors considered when selecting comparable instruments include industry segment, collateral quality, maturity and issuer-specific covenants. Fair value may be measured either by a direct price comparison or by conversion of an instrument price into a yield. The range represents the range of prices derived from reference issuances of a similar credit quality used to measure fair value for loans classified as Level 3. Loans priced at 0 are distressed to the point that no recovery is expected, while a current price of 100 represents a loan that is expected to be repaid in full.
Credit spread	<ul style="list-style-type: none">• Valuation models for many credit derivatives require an input for the credit spread, which is a reflection of the credit quality of the associated referenced underlying. The credit spread of a particular security is quoted in relation to the yield on a benchmark security or reference rate, typically either US Treasury or ARR, and is generally expressed in terms of basis points. An increase / (decrease) in credit spread will increase / (decrease) the value of credit protection offered by credit default swaps and other credit derivative products. The income statement effect from such changes depends on the nature and direction of the positions held. Credit spreads may be negative where the asset is more creditworthy than the benchmark against which the spread is calculated. A wider credit spread represents decreasing creditworthiness. The range represents a diverse set of underlyings, with the lower end of the range representing credits of the highest quality and the upper end of the range representing greater levels of credit risk.
Discount margin	<ul style="list-style-type: none">• The discount margin (DM) spread represents the discount rates applied to present value cash flows of an asset to reflect the market return required for uncertainty in the estimated cash flows. DM spreads are a rate or rates applied on top of a floating index (e.g., Secured Overnight Financing Rate (SOFR)) to discount expected cash flows. Generally, a decrease / (increase) in the DM in isolation would result in a higher / (lower) fair value.• The high end of the range relates to securities that are priced low within the market relative to the expected cash flow schedule. This indicates that the market is pricing an increased risk of credit loss into the security that is greater than what is being captured by the expected cash flow generation process. The low ends of the ranges are typical of funding rates on better-quality instruments.
Funding spread	<ul style="list-style-type: none">• Structured financing transactions are valued using synthetic funding curves that best represent the assets that are pledged as collateral for the transactions. They are not representative of where UBS can fund itself on an unsecured basis, but provide an estimate of where UBS can source and deploy secured funding with counterparties for a given type of collateral. The funding spreads are expressed in terms of basis points, and if funding spreads widen, this increases the effect of discounting.• A small proportion of structured debt instruments and non-structured fixed-rate bonds within financial liabilities designated at fair value had an exposure to funding spreads that was longer in duration than the actively traded market.

Volatility

- Volatility measures the variability of future prices for a particular instrument and is generally expressed as a percentage, where a higher number reflects a more volatile instrument, for which future price movements are more likely to occur. Volatility is a key input into option models, where it is used to derive a probability-based distribution of future prices for the underlying instrument. The effect of volatility on individual positions within the portfolio is driven primarily by whether the option contract is a long or short position. In most cases, the fair value of an option increases as a result of an increase in volatility and is reduced by a decrease in volatility. Generally, volatility used in the measurement of fair value is derived from active-market option prices (referred to as implied volatility). A key feature of implied volatility is the volatility “smile” or “skew,” which represents the effect of pricing options of different option strikes at different implied volatility levels.
- Volatilities of low interest rates tend to be much higher than volatilities of high interest rates. In addition, different currencies may have significantly different implied volatilities.

Note 20 Fair value measurement (continued)

Input	Description
Correlation	<ul style="list-style-type: none"> Correlation measures the interrelationship between the movements of two variables. It is expressed as a percentage between <ul style="list-style-type: none"> 100% and +100%, where +100% represents perfectly correlated variables (meaning a movement of one variable is associated with a movement of the other variable in the same direction) and –100% implies that the variables are inversely correlated (meaning a movement of one variable is associated with a movement of the other variable in the opposite direction). The effect of correlation on the measurement of fair value depends on the specific terms of the instruments being valued, reflecting the range of different payoff features within such instruments. Equity-to-FX correlation is important for equity options based on a currency other than the currency of the underlying stock. Equity-to-equity correlation is particularly important for complex options that incorporate, in some manner, different equities in the projected payoff.
Equity dividend yields	<ul style="list-style-type: none"> The derivation of a forward price for an individual stock or index is important for measuring fair value for forward or swap contracts and for measuring fair value using option pricing models. The relationship between the current stock price and the forward price is based on a combination of expected future dividend levels and payment timings, and, to a lesser extent, the relevant funding rates applicable to the stock in question. Dividend yields are generally expressed as an annualized percentage of the share price, with the lowest limit of 0% representing a stock that is not expected to pay any dividend. The dividend yield and timing represent the most significant parameter in determining fair value for instruments that are sensitive to an equity forward price.

f) Level 3 instruments: sensitivity to changes in unobservable input assumptions

The table below summarizes those financial assets and liabilities classified as Level 3 for which a change in one or more of the unobservable inputs to reflect reasonably possible favorable and unfavorable alternative assumptions would change fair value significantly, and the estimated effect thereof. The table below does not represent the estimated effect of stress scenarios. Interdependencies between Level 1, 2 and 3 parameters have not been incorporated in the table. Furthermore, direct interrelationships between the Level 3 parameters discussed below are not a significant element of the valuation uncertainty.

Sensitivity data is estimated using a number of techniques, including the estimation of price dispersion among different market participants, variation in modeling approaches and reasonably possible changes to assumptions used within the fair value measurement process. The sensitivity ranges are not always symmetrical around the fair values, as the inputs used in valuations are not always precisely in the middle of the favorable and unfavorable range.

Sensitivity data is determined at a product or parameter level and then aggregated assuming no diversification benefit. Diversification would incorporate estimated correlations across different sensitivity results and, as such, would result in an overall sensitivity that would be less than the sum of the individual component sensitivities. However, UBS believes that the diversification benefit is not significant to this analysis.

Sensitivity of fair value measurements to changes in unobservable input assumptions¹

<i>USD m</i>	31.12.22		31.12.21	
	Favorable changes	Unfavorable changes	Favorable changes	Unfavorable changes
Traded loans, loans measured at fair value, loan commitments and guarantees	19	(12)	19	(13)
Securities financing transactions	33	(37)	41	(53)
Auction rate securities	46 ²	(46) ²	66	(66)
Asset-backed securities	27	(27)	20	(20)
Equity instruments	183	(161)	173	(146)
Interest rate derivatives, net	18 ²	(12) ²	29	(19)
Credit derivatives, net	3	(4)	5	(8)
Foreign exchange derivatives, net	10	(5)	19	(11)
Equity / index derivatives, net	361	(330)	368	(335)
Other	39 ²	(62) ²	50	(73)
Total	738	(696)	790	(744)

¹ Sensitivity of issued and over-the-counter debt instruments is reported with the equivalent derivative or securities financing instrument.

² Includes refinements applied in estimating valuation uncertainty across various parameters.

Note 20 Fair value measurement (continued)

g) Level 3 instruments: movements during the period

The table below presents additional information about material movements in Level 3 assets and liabilities measured at fair value on a recurring basis, excluding any related hedging activity.

Assets and liabilities transferred into or out of Level 3 are presented as if those assets or liabilities had been transferred at the beginning of the year.

Movements of Level 3 instruments

<i>USD bn</i>	Balance at the beginning of the period	Net gains / losses included in comprehensive income¹	<i>of which: related to instruments held at the end of the period</i>	Purchases	Sales	Issuances	Settlements	Transfers into Level 3	Transfers out of Level 3	Foreign currency translation	Balance at the end of the period
For the twelve months ended 31 December 2022²											
Financial assets at fair value held for trading											
	2.3	(0.3)	(0.3)	0.3	(1.8)	0.5	0.0	0.7	(0.3)	(0.0)	1.5
<i>of which:</i>											
<i>Investment fund units</i>	0.0	(0.0)	(0.0)	0.0	(0.0)	0.0	0.0	0.1	(0.0)	(0.0)	0.1
<i>of which:</i>											
<i>Corporate and municipal bonds</i>	0.6	(0.0)	(0.0)	0.3	(0.6)	0.0	0.0	0.4	(0.0)	(0.0)	0.5
<i>of which: Loans</i>	1.4	(0.1)	(0.1)	0.0	(1.1)	0.5	0.0	0.0	(0.2)	0.0	0.6
Derivative financial instruments – assets											
	1.1	0.6	0.3	0.0	0.0	0.4	(0.7)	0.1	(0.0)	(0.0)	1.5
<i>of which: Interest rate</i>											
	0.5	0.3	0.3	0.0	0.0	0.0	(0.2)	0.0	(0.1)	(0.0)	0.5
<i>of which: Equity / index</i>											
	0.4	0.2	0.1	0.0	0.0	0.4	(0.3)	0.1	(0.0)	(0.0)	0.7
<i>of which: Credit</i>											
	0.2	0.1	(0.1)	0.0	0.0	0.0	(0.2)	0.0	0.1	0.0	0.3
Financial assets at fair value not held for trading											
	4.2	0.1	0.1	0.7	(1.2)	0.1	(0.0)	0.2	(0.3)	(0.0)	3.7
<i>of which: Loans</i>											
	0.9	(0.0)	(0.0)	0.4	(0.4)	0.1	0.0	0.1	(0.3)	(0.0)	0.7
<i>of which: Auction rate securities</i>											
	1.6	0.1	0.0	0.0	(0.3)	0.0	0.0	0.0	0.0	0.0	1.3
<i>of which: Equity instruments</i>											
	0.7	0.0	0.0	0.1	(0.1)	0.0	0.0	0.1	0.0	(0.0)	0.8
Derivative financial instruments – liabilities											
	2.2	(0.8)	(0.4)	0.0	0.0	1.1	(0.9)	0.3	(0.2)	(0.1)	1.7
<i>of which: Interest rate</i>											
	0.3	(0.3)	(0.0)	0.0	0.0	0.1	(0.0)	0.0	(0.0)	(0.0)	0.1
<i>of which: Equity / index</i>											
	1.5	(0.4)	(0.3)	0.0	0.0	0.8	(0.7)	0.1	(0.2)	(0.0)	1.2
<i>of which: Credit</i>											
	0.3	(0.1)	(0.0)	0.0	0.0	0.1	(0.1)	0.1	(0.0)	(0.0)	0.3
Debt issued designated at fair value											
	11.9	(1.3)	(0.9)	0.0	0.0	4.7	(3.1)	0.7	(3.3)	(0.3)	9.2
Other financial liabilities designated at fair value³											
	3.2	(1.0)	(1.0)	0.0	0.0	0.0	(0.1)	0.1	(0.2)	(0.0)	2.0
For the twelve months ended 31 December 2021											

Financial assets at fair value held for trading	2.3	(0.0)	(0.1)	0.3	(1.6)	1.2	0.0	0.3	(0.3)	(0.0)	2.3
<i>of which:</i>											
<i>Investment fund units</i>	0.0	(0.0)	(0.0)	0.0	(0.0)	0.0	0.0	0.0	(0.0)	(0.0)	0.0
<i>of which:</i>											
<i>Corporate and municipal bonds</i>	0.8	0.0	(0.0)	0.2	(0.4)	0.0	0.0	0.0	(0.1)	(0.0)	0.6
<i>of which: Loans</i>	1.1	0.0	(0.0)	0.0	(0.8)	1.2	0.0	0.0	(0.2)	0.0	1.4
Derivative financial instruments – assets	1.8	(0.2)	(0.1)	0.0	0.0	0.5	(0.7)	0.1	(0.3)	(0.0)	1.1
<i>of which: Interest rate</i>	0.5	0.1	0.1	0.0	0.0	0.1	(0.2)	0.0	(0.1)	(0.0)	0.5
<i>of which: Equity / index</i>	0.9	(0.1)	(0.1)	0.0	0.0	0.3	(0.4)	0.0	(0.2)	(0.0)	0.4
<i>of which: Credit</i>	0.3	(0.1)	(0.1)	0.0	0.0	0.0	(0.1)	0.0	(0.0)	0.0	0.2
Financial assets at fair value not held for trading	3.9	0.1	0.1	1.0	(0.6)	0.0	0.0	0.1	(0.3)	(0.0)	4.2
<i>of which: Loans</i>	0.9	(0.0)	0.0	0.6	(0.3)	0.0	0.0	0.0	(0.3)	(0.0)	0.9
<i>of which: Auction rate securities</i>	1.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
<i>of which: Equity instruments</i>	0.5	0.1	0.1	0.1	(0.1)	0.0	0.0	0.0	(0.0)	(0.0)	0.7
Derivative financial instruments – liabilities	3.5	0.2	(0.0)	0.0	0.0	0.9	(1.8)	0.0	(0.5)	(0.0)	2.2
<i>of which: Interest rate</i>	0.5	(0.1)	(0.1)	0.0	0.0	0.0	(0.1)	0.0	(0.0)	(0.0)	0.3
<i>of which: Equity / index</i>	2.3	0.3	0.1	0.0	0.0	0.8	(1.5)	0.0	(0.4)	(0.0)	1.5
<i>of which: Credit</i>	0.5	(0.1)	(0.1)	0.0	0.0	0.0	(0.0)	0.0	(0.1)	(0.0)	0.3
Debt issued designated at fair value	9.6	0.7	0.6	0.0	0.0	7.1	(4.2)	0.1	(1.2)	(0.2)	11.9
Other financial liabilities designated at fair value	2.1	0.0	0.0	0.0	0.0	1.3	(0.2)	0.0	(0.0)	(0.0)	3.2

- 1 Net gains / losses included in comprehensive income are recognized in Net interest income and Other net income from financial instruments measured at fair value through profit or loss in the Income statement, and also in Gains / (losses) from own credit on financial liabilities designated at fair value, before tax in the Statement of comprehensive income.
- 2 Total Level 3 assets as of 31 December 2022 were USD 6.7bn (31 December 2021: USD 7.6bn). Total Level 3 liabilities as of 31 December 2022 were USD 13.0bn (31 December 2021: USD 17.4bn).
- 3 Of the USD 1.0bn in net gains / losses that is included in comprehensive income, USD 0.6bn is recognized in the Income statement and USD 0.4bn is recognized in the Statement of comprehensive income in Gains / (losses) from own credit on financial liabilities designated at fair value, before tax.

Note 20 Fair value measurement (continued)

i) Financial instruments not measured at fair value

The table below provides the estimated fair values of financial instruments not measured at fair value.

Financial instruments not measured at fair value

USD bn	31.12.22						31.12.21					
	Carrying amount	Fair value					Carrying amount	Fair value				
	Total	Carrying amount approximates fair value ¹	Level 1	Level 2	Level 3	Total	Total	Carrying amount approximates fair value ¹	Level 1	Level 2	Level 3	Total
Assets												
Cash and balances at central banks	169.4	169.4	0.1	0.0	0.0	169.4	192.8	192.7	0.1	0.0	0.0	192.8
Loans and advances to banks	14.7	13.9	0.0	0.7	0.0	14.6	15.4	14.6	0.0	0.7	0.0	15.3
Receivables from securities financing transactions measured at amortized cost	67.8	64.3	0.0	1.8	1.7	67.8	75.0	71.6	0.0	1.3	2.1	75.0
Cash collateral receivables on derivative instruments	35.0	35.0	0.0	0.0	0.0	35.0	30.5	30.5	0.0	0.0	0.0	30.5
Loans and advances to customers	390.0	136.9	0.0	45.9	195.0	377.7	398.7	163.7	0.0	43.8	190.4	397.9
Other financial assets measured at amortized cost ²	53.4	13.0	10.3	25.1	2.5	51.0	26.2	4.1	9.3	10.7	2.4	26.5
Liabilities												
Amounts due to banks	11.6	8.9	0.0	2.7	0.0	11.6	13.1	9.1	0.0	4.0	0.0	13.1
Payables from securities financing transactions measured at amortized cost	4.2	3.5	0.0	0.7	0.0	4.2	5.5	4.1	0.0	1.5	0.0	5.5
Cash collateral payables on derivative instruments	36.4	36.4	0.0	0.0	0.0	36.4	31.8	31.8	0.0	0.0	0.0	31.8
Customer deposits	527.2	493.0	0.0	33.9	0.0	526.9	544.8	537.6	0.0	7.3	0.0	544.8
Funding from UBS Group AG measured at amortized cost	56.1	2.0	0.0	53.7	0.0	55.7	57.3	2.8	0.0	56.0	0.0	58.8
Debt issued measured at amortized cost	59.5	13.4	0.0	45.5	0.0	58.9	82.4	13.0	0.0	69.8	0.0	82.8
Other financial liabilities measured at amortized cost ³	7.2	7.2	0.0	0.0	0.0	7.2	6.3	6.3	0.0	0.0	0.0	6.3

1 Includes certain financial instruments where the carrying amount is a reasonable approximation of the fair value due to the instruments' short-term nature (instruments that are receivable or payable on demand, or with a remaining maturity (excluding the effects of callable features) of three months or less).

2 Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. Refer to Note 1 for information.

3 Excludes lease liabilities.

The fair values included in the table above have been calculated for disclosure purposes only. The valuation techniques and assumptions described below relate only to the fair value of UBS's financial instruments not measured at fair value. Other institutions may use different methods and assumptions for their fair value estimations, and therefore such fair value disclosures cannot necessarily be compared from one financial institution to another. The following principles were applied when determining fair value estimates for financial instruments not measured at fair value:

- For financial instruments with remaining maturities greater than three months, the fair value was determined from quoted market prices, if available.

- Where quoted market prices were not available, the fair values were estimated by discounting contractual cash flows using current market interest rates or appropriate yield curves for instruments with similar credit risk and maturity.

These estimates generally include adjustments for counterparty credit risk or UBS's own credit.

- For short-term financial instruments with remaining maturities of three months or less, the carrying amount, which is net of credit loss allowances, is generally considered a reasonable estimate of fair value.

Note 21 Offsetting financial assets and financial liabilities

UBS AG enters into netting agreements with counterparties to manage the credit risks associated primarily with repurchase and reverse repurchase transactions, securities borrowing and lending, over-the-counter derivatives, and exchange-traded derivatives. These netting agreements and similar arrangements generally enable the counterparties to set off liabilities against available assets received in the ordinary course of business and / or in the event that the counterparties to the transaction are unable to fulfill their contractual obligations.

The tables below provide a summary of financial assets and financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements, as well as financial collateral received or pledged to mitigate credit exposures for these financial instruments.

UBS AG engages in a variety of counterparty credit risk mitigation strategies in addition to netting and collateral arrangements. Therefore, the net amounts presented in the tables below do not purport to represent their actual credit risk exposure.

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements

	Assets subject to netting arrangements						Assets not subject to netting arrangements ⁴	Total assets		
	Netting recognized on the balance sheet			Netting potential not recognized on the balance sheet ³				Assets recognized on the balance sheet	Total assets after consideration of netting potential	Total assets recognized on the balance sheet
	Gross assets before netting	Netting with gross liabilities ²	Net assets recognized on the balance sheet	Financial liabilities	Collateral received	Assets after consideration of netting potential				
<i>As of 31.12.22, USD bn</i>										
Receivables from securities financing transactions measured at amortized cost	60.8	(11.1)	49.6	(3.0)	(46.4)	0.3	18.2	18.5	67.8	
Derivative financial instruments	147.4	(2.5)	144.9	(110.9)	(28.5)	5.5	5.2	10.7	150.1	
Cash collateral receivables on derivative instruments ¹	33.5	0.0	33.5	(20.9)	(1.9)	10.6	1.5	12.1	35.0	
Financial assets at fair value not held for trading	85.6	(76.8)	8.7	(1.5)	(7.3)	0.0	50.7	50.7	59.4	
<i>of which: reverse repurchase agreements</i>	84.4	(76.8)	7.6	(1.5)	(6.1)	0.0	0.1	0.1	7.7	
Total assets	327.2	(90.4)	236.8	(136.3)	(84.1)	16.4	75.6	92.0	312.4	
<i>As of 31.12.21, USD bn</i>										
Receivables from securities financing transactions measured at amortized cost	67.7	(13.8)	53.9	(2.9)	(51.0)	0.0	21.1	21.1	75.0	
Derivative financial instruments	116.0	(3.6)	112.4	(88.9)	(18.5)	5.0	5.8	10.7	118.1	
Cash collateral receivables on derivative instruments ¹	29.4	0.0	29.4	(15.2)	(3.3)	11.0	1.1	12.1	30.5	
Financial assets at fair value not held for trading	93.1	(87.6)	5.5	(1.1)	(4.4)	0.0	54.1	54.1	59.6	
<i>of which: reverse repurchase agreements</i>	93.1	(87.6)	5.5	(1.1)	(4.4)	0.0	0.3	0.3	5.8	
Total assets	306.2	(105.0)	201.2	(108.1)	(77.2)	15.9	82.1	98.1	283.3	

1 The net amount of Cash collateral receivables on derivative instruments recognized on the balance sheet includes certain OTC derivatives that are net settled on a daily basis either legally or in substance under IAS 32 principles and exchange-traded derivatives that are economically settled on a daily basis.

2 The logic of the table results in amounts presented in the “Netting with gross liabilities” column corresponding directly to the amounts presented in the “Netting with gross assets” column in the liabilities table presented below. Netting in this column for reverse repurchase agreements presented within the lines “Receivables from securities financing transactions measured at amortized cost” and “Financial assets at fair value not held for trading” taken together corresponds to the amounts presented for repurchase agreements in the “Payables from securities financing transactions measured at amortized cost” and “Other financial liabilities designated at fair value” lines in the liabilities table presented below.

3 For the purpose of this disclosure, the amounts of financial instruments and cash collateral presented have been capped so as not to exceed the net amount of financial assets presented on the balance sheet; i.e., over-collateralization, where it exists, is not reflected in the table.

4 Includes assets not subject to enforceable netting arrangements and other out-of-scope items.

Note 21 Offsetting financial assets and financial liabilities (continued)

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements

	Liabilities subject to netting arrangements						Liabilities not subject to netting arrangements ⁴	Total liabilities	
	Netting recognized on the balance sheet			Netting potential not recognized on the balance sheet ³				Total liabilities after consideration of netting potential	Total liabilities recognized on the balance sheet
	Gross liabilities before netting	Netting with gross assets ²	Net liabilities recognized on the balance sheet	Financial assets	Collateral pledged	Liabilities after consideration of netting potential			
<i>As of 31.12.22, USD bn</i>									
Payables from securities financing transactions measured at amortized cost	14.1	(11.1)	3.0	(1.3)	(1.8)	0.0	1.2	1.2	4.2
Derivative financial instruments	150.3	(2.5)	147.8	(110.9)	(26.2)	10.7	7.1	17.8	154.9
Cash collateral payables on derivative instruments ¹	34.9	0.0	34.9	(20.0)	(1.9)	13.0	1.6	14.5	36.4
Other financial liabilities designated at fair value	92.5	(76.9)	15.6	(3.2)	(12.4)	0.0	16.4	16.4	32.0
<i>of which: repurchase agreements</i>	<i>92.1</i>	<i>(76.9)</i>	<i>15.3</i>	<i>(3.2)</i>	<i>(12.1)</i>	<i>0.0</i>	<i>0.1</i>	<i>0.1</i>	<i>15.3</i>
Total liabilities	291.7	(90.4)	201.3	(135.3)	(42.3)	23.7	26.3	49.9	227.6
<i>As of 31.12.21, USD bn</i>									
Payables from securities financing transactions measured at amortized cost	16.9	(12.8)	4.1	(1.8)	(2.3)	0.0	1.4	1.4	5.5
Derivative financial instruments	118.4	(3.6)	114.9	(88.9)	(18.1)	7.9	6.4	14.3	121.3
Cash collateral payables on derivative instruments ¹	30.4	0.0	30.4	(13.1)	(3.3)	14.0	1.4	15.4	31.8
Other financial liabilities designated at fair value	94.8	(88.6)	6.2	(2.2)	(3.8)	0.2	26.3	26.5	32.4
<i>of which: repurchase agreements</i>	<i>94.6</i>	<i>(88.6)</i>	<i>6.0</i>	<i>(2.2)</i>	<i>(3.8)</i>	<i>0.0</i>	<i>0.4</i>	<i>0.4</i>	<i>6.4</i>
Total liabilities	260.6	(105.0)	155.6	(106.0)	(27.5)	22.1	35.5	57.6	191.1

- 1 The net amount of Cash collateral payables on derivative instruments recognized on the balance sheet includes certain OTC derivatives that are net settled on a daily basis either legally or in substance under IAS 32 principles and exchange-traded derivatives that are economically settled on a daily basis.
- 2 The logic of the table results in amounts presented in the “Netting with gross assets” column corresponding to the amounts presented in the “Netting with gross liabilities” column in the assets table presented above. Netting in this column for repurchase agreements presented within the lines “Payables from securities financing transactions measured at amortized cost” and “Other financial liabilities designated at fair value” taken together corresponds to the amounts presented for reverse repurchase agreements in the “Receivables from securities financing transactions measured at amortized cost” and “Financial assets at fair value not held for trading” lines in the assets table presented above.
- 3 For the purpose of this disclosure, the amounts of financial instruments and cash collateral presented have been capped so as not to exceed the net amount of financial liabilities presented on the balance sheet; i.e., over-collateralization, where it exists, is not reflected in the table.
- 4 Includes liabilities not subject to enforceable netting arrangements and other out-of-scope items.

Note 22 Restricted and transferred financial assets

This Note provides information about restricted financial assets (Note 22a), transfers of financial assets (Note 22b and 22c) and financial assets that are received as collateral with the right to resell or repledge these assets (Note 22d).

a) Restricted financial assets

Restricted financial assets consist of assets pledged as collateral against an existing liability or contingent liability and other assets that are otherwise explicitly restricted such that they cannot be used to secure funding.

Financial assets are mainly pledged as collateral in securities lending transactions, in repurchase transactions, against loans from Swiss mortgage institutions and in connection with the issuance of covered bonds. UBS AG generally enters into repurchase and securities lending arrangements under standard market agreements. For securities lending, the cash received as collateral may be more or less than the fair value of the securities loaned, depending on the nature of the transaction. For repurchase agreements, the fair value of the collateral sold under an agreement to repurchase is generally in excess of the cash borrowed. Pledged mortgage loans serve as collateral for existing liabilities against Swiss central mortgage institutions and for existing covered bond issuances of USD 8,962m as of 31 December 2022 (31 December 2021: USD 10,843m).

Other restricted financial assets include assets protected under client asset segregation rules, assets held under unit-linked investment contracts to back related liabilities to the policy holders and assets held in certain jurisdictions to comply with explicit minimum local asset maintenance requirements. The carrying amount of the liabilities associated with these other restricted financial assets is generally equal to the carrying amount of the assets, with the exception of assets held to comply with local asset maintenance requirements, for which the associated liabilities are greater.

Restricted financial assets

<u>USD m</u>	31.12.22		31.12.21	
	Restricted financial assets	<i>of which: assets pledged as collateral that may be sold or repledged by counterparties</i>	Restricted financial assets	<i>of which: assets pledged as collateral that may be sold or repledged by counterparties</i>
Financial assets pledged as collateral				
Financial assets at fair value held for trading	57,435	36,742	63,834	43,397
Loans and advances to customers ¹	15,195		18,160	
Financial assets at fair value not held for trading	1,509	1,220	961	961
Debt securities classified as Other financial assets measured at amortized cost	3,432	2,685	2,234	1,870
Total financial assets pledged as collateral	77,571		85,188	
Other restricted financial assets				
Loans and advances to banks	3,689		3,408	
Financial assets at fair value held for trading	162		392	
Cash collateral receivables on derivative instruments	5,155		4,747	
Loans and advances to customers	1,127		1,237	
Financial assets at fair value not held for trading	14,090		22,328	
Financial assets measured at fair value through other comprehensive income	1,842		894	
Other	859		97	
Total other restricted financial assets	26,924		33,104	
Total financial assets pledged and other restricted financial assets²	104,495		118,292	

1 Mainly related to mortgage loans that serve as collateral for existing liabilities toward Swiss central mortgage institutions and for existing covered bond issuances. Of these pledged mortgage loans, approximately USD 3.1bn as of 31 December 2022 (31 December 2021: approximately USD 2.7bn) could be withdrawn or used for future liabilities or covered bond issuances without breaching existing collateral requirements.

2 Does not include assets placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes (31 December 2022: USD 5.9bn; 31 December 2021: USD 4.4bn).

Note 22 Restricted and transferred financial assets (continued)

In addition to restrictions on financial assets, UBS AG and its subsidiaries are, in certain cases, subject to regulatory requirements that affect the transfer of dividends and capital within UBS AG, as well as intercompany lending. Supervisory authorities also may require entities to measure capital and leverage ratios on a stressed basis, such as the Federal Reserve Board's Comprehensive Capital Analysis and Review (CCAR) process, which may limit the relevant subsidiaries' ability to make distributions of capital based on the results of those tests.

Supervisory authorities generally have discretion to impose higher requirements or to otherwise limit the activities of subsidiaries.

Non-regulated subsidiaries are generally not subject to such requirements and transfer restrictions. However, restrictions can also be the result of different legal, regulatory, contractual, entity- or country-specific arrangements and / or requirements.

- Refer to the “Financial and regulatory key figures for our significant regulated subsidiaries and sub-groups” section of this report for financial information about significant regulated subsidiaries of UBS AG

b) Transferred financial assets that are not derecognized in their entirety

The table below presents information for financial assets that have been transferred but are subject to continued recognition in full, as well as recognized liabilities associated with those transferred assets.

Transferred financial assets subject to continued recognition in full

<i>USD m</i>	31.12.22		31.12.21	
	Carrying amount of transferred assets	Carrying amount of associated liabilities recognized on balance sheet	Carrying amount of transferred assets	Carrying amount of associated liabilities recognized on balance sheet
Financial assets at fair value held for trading that may be sold or repledged by counterparties	36,742	16,470	43,397	17,687
<i>relating to securities lending and repurchase agreements in exchange for cash received</i>	16,756	16,470	17,970	17,687
<i>relating to securities lending agreements in exchange for securities received</i>	18,908		24,146	
<i>relating to other financial asset transfers</i>	1,078		1,281	
Financial assets at fair value not held for trading that may be sold or repledged by counterparties	1,220	1,050	961	898
Debt securities classified as Other financial assets measured at amortized cost that may be sold or repledged by counterparties	2,685	2,302	1,870	1,725
Total financial assets transferred	40,647	19,822	46,227	20,311

Transactions in which financial assets are transferred, but continue to be recognized in their entirety on UBS AG's balance sheet include securities lending and repurchase agreements, as well as other financial asset transfers. Repurchase and securities lending arrangements are, for the most part, conducted under standard market agreements and are undertaken with counterparties subject to UBS AG's normal credit risk control processes.

- Refer to Note 1a item 2e for more information about repurchase and securities lending agreements

As of 31 December 2022, approximately 45% of the transferred financial assets were assets held for trading transferred in exchange for cash, in which case the associated recognized liability represents the amount to be repaid to counterparties. For securities lending and repurchase agreements, a haircut of between 0% and 15% is generally applied to the transferred assets, which results in associated liabilities having a carrying amount below the carrying amount of the transferred assets. The counterparties to the associated liabilities presented in the table above have full recourse to UBS AG.

In securities lending arrangements entered into in exchange for the receipt of other securities as collateral, neither the securities received nor the obligation to return them are recognized on UBS AG's balance sheet, as the risks and rewards of ownership are not transferred to UBS AG. In cases where such financial assets received are subsequently sold or repledged in another transaction, this is not considered to be a transfer of financial assets.

Other financial asset transfers primarily include securities transferred to collateralize derivative transactions, for which the carrying amount of associated liabilities is not provided in the table above, because those replacement values are managed on a portfolio basis across counterparties and product types, and therefore there is no direct relationship between the specific collateral pledged and the associated liability.

Transferred financial assets that are not subject to derecognition in full but remain on the balance sheet to the extent of UBS AG's continuing involvement were not material as of 31 December 2022 and as of 31 December 2021.

Note 22 Restricted and transferred financial assets (continued)

c) Transferred financial assets that are derecognized in their entirety with continuing involvement

Continuing involvement in a transferred and fully derecognized financial asset may result from contractual provisions in the particular transfer agreement or from a separate agreement, with the counterparty or a third party, entered into in connection with the transfer.

The fair value and carrying amount of UBS AG's continuing involvement from transferred positions as of 31 December 2022 and 31 December 2021 was not material. Life-to-date losses reported in prior periods primarily relate to legacy positions in securitization vehicles that have been fully marked down, with no remaining exposure to loss.

d) Off-balance sheet assets received

The table below presents assets received from third parties that can be sold or repledged and that are not recognized on the balance sheet, but that are held as collateral, including amounts that have been sold or repledged.

Off-balance sheet assets received

<i>USD m</i>	31.12.22	31.12.21
Fair value of assets received that can be sold or repledged	434,023	497,828
<i>received as collateral under reverse repurchase, securities borrowing and lending arrangements, derivative and other transactions¹</i>	418,847	483,426
<i>received in unsecured borrowings</i>	15,175	14,402
Thereof sold or repledged ²	331,805	367,440
<i>in connection with financing activities</i>	288,752	319,176
<i>to satisfy commitments under short sale transactions</i>	29,515	31,688
<i>in connection with derivative and other transactions¹</i>	13,538	16,575

- 1 Includes securities received as initial margin from its clients that UBS AG is required to remit to central counterparties, brokers and deposit banks through its exchange-traded derivative clearing and execution services.
- 2 Does not include off-balance sheet securities (31 December 2022: USD 9.9bn; 31 December 2021: USD 12.7bn) placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes for which there are no associated liabilities or contingent liabilities.

Note 23 Maturity analysis of assets and liabilities

a) Maturity analysis of carrying amounts of assets and liabilities

The table below provides an analysis of carrying amounts of balance sheet assets and liabilities, as well as off-balance sheet exposures by residual contractual maturity as of the reporting date. The residual contractual maturity of assets includes the effect of callable features. The residual contractual maturity of liabilities and off-balance sheet exposures is based on the earliest date on which a third party could require UBS AG to pay.

Derivative financial instruments and financial assets and liabilities at fair value held for trading are presented in the *Due within 1 month* column; however, the respective contractual maturities may extend over significantly longer periods.

Assets held to hedge unit-linked investment contracts (presented within *Financial assets at fair value not held for trading*) are presented in the *Due within 1 month* column, consistent with the maturity assigned to the related amounts due under unit-linked investment contracts (presented within *Other financial liabilities designated at fair value*).

Other financial assets and liabilities with no contractual maturity, such as equity securities, are presented in the *Perpetual / Not applicable* column. Undated or perpetual instruments are classified based on the contractual notice period that the counterparty of the instrument is entitled to give. Where there is no contractual notice period, undated or perpetual contracts are presented in the *Perpetual / Not applicable* column.

Non-financial assets and liabilities with no contractual maturity are generally included in the *Perpetual / Not applicable* column.

Loan commitments are classified based on the earliest date they can be drawn down.

Note 23 Maturity analysis of assets and liabilities (continued)

<i>USD bn</i>	31.12.22							Perpetual / Not applicable	Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 2 years	Due between 2 and 5 years	Due over 5 years			
Assets									
Total financial assets measured at amortized cost ¹	425.2	28.7	34.5	78.8	70.5	92.8			730.4
<i>Loans and advances to customers</i>	141.9	16.3	28.3	74.9	55.6	73.0			390.0
Total financial assets measured at fair value through profit or loss	300.4	10.0	7.8	3.6	9.9	2.0	1.5		335.1
<i>Financial assets at fair value not held for trading</i>	24.6	10.0	7.8	3.6	9.9	2.0	1.5		59.4
Financial assets measured at fair value through other comprehensive income ¹	0.3	0.9	0.9	0.1	0.0	0.0			2.2
Total non-financial assets	7.1		0.2		2.0	0.4	28.0		37.7
Total assets	732.9	39.5	43.4	82.4	82.4	95.1	29.6		1,105.4
Liabilities									
Total financial liabilities measured at amortized cost	524.3	40.2	49.6	20.7	35.2	23.5	11.8		705.4
<i>Customer deposits</i>	464.5	28.5	23.8	7.7	2.3	0.3			527.2
<i>Funding from UBS Group AG</i>	2.0			4.8	21.2	16.3	11.8		56.1
<i>Debt issued measured at amortized cost</i>	4.6	8.8	23.3	7.2	10.0	5.7			59.5
<i>of which: non-subordinated fixed rate debt</i>	3.1	4.0	13.2	2.8	7.8	5.7			36.6
<i>of which: non-subordinated floating rate debt</i>	1.5	4.8	10.1	1.9	1.6				19.9
<i>of which: subordinated fixed-rate debt</i>				2.4	0.5				3.0
Total financial liabilities measured at fair value through profit or loss ²	265.9	13.8	16.3	19.6	7.3	10.5			333.4
<i>Debt issued designated at fair value</i>	9.3	12.3	15.9	19.3	6.9	8.2			71.8
<i>of which: non-subordinated fixed rate debt</i>	0.5	2.3	5.6	3.6	2.0	1.6			15.6
<i>of which: non-subordinated floating rate debt</i>	8.8	10.0	10.3	15.7	4.9	6.6			56.2
Total non-financial liabilities	6.7	2.6					0.5		9.7
Total liabilities	796.9	56.5	65.9	40.4	42.5	34.0	12.3		1,048.5
Guarantees, loan commitments and forward starting transactions³									
Loan commitments	39.3	0.3	0.4	0.0					40.0
Guarantees	22.4								22.4
Forward starting transactions, reverse repurchase and securities borrowing agreements	3.8								3.8
Total	65.4	0.3	0.4	0.0					66.2

<i>USD bn</i>	31.12.21							Perpetual / Not applicable	Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 2 years	Due between 2 and 5 years	Due over 5 years			
Assets									
Total financial assets measured at amortized cost	454.3	45.6	43.2	53.7	64.2	77.6			738.6
<i>Loans and advances to customers</i>	157.8	28.5	37.3	49.7	55.1	70.3			398.7
Total financial assets measured at fair value through profit or loss	300.7	5.8	8.1	5.2	7.1	2.5	1.4		330.7
<i>Financial assets at fair value not held for trading</i>	29.7	5.8	8.1	5.2	7.1	2.5	1.4		59.6
Financial assets measured at fair value through other comprehensive income	0.1	0.4	0.7	0.1	0.4	7.1			8.8
Total non-financial assets	7.3	0.5	0.1	0.2	1.4	0.3	28.2		38.0
Total assets	762.3	52.3	52.1	59.3	73.2	87.5	29.5		1,116.1

Liabilities								
Total financial liabilities measured at amortized cost	583.3	21.5	48.4	17.3	36.0	24.7	13.7	744.8
<i>Customer deposits</i>	531.0	6.5	3.2	1.9	1.8	0.3		544.8
<i>Funding from UBS Group AG</i>	0.0	2.8	1.4	6.3	17.0	16.1	13.7	57.3
<i>Debt issued measured at amortized cost</i>	3.7	9.3	38.4	8.7	15.5	6.9		82.4
<i>of which: non-subordinated fixed rate debt</i>	3.7	8.4	27.4	6.6	9.0	6.9		62.0
<i>of which: non-subordinated floating rate debt</i>	0.0	0.8	9.0	2.1	3.3			15.2
<i>of which: subordinated fixed-rate debt</i>			2.0		3.1			5.2
Total financial liabilities measured at fair value through profit or loss ²	238.1	12.0	14.7	18.8	5.6	11.8		300.9
<i>Debt issued designated at fair value</i>	12.5	11.6	14.1	18.6	5.4	9.2		71.5
<i>of which: non-subordinated fixed rate debt</i>	0.8	1.2	2.9	1.2	1.3	2.4		9.8
<i>of which: non-subordinated floating rate debt</i>	11.7	10.3	11.2	17.4	4.2	6.8		61.6
Total non-financial liabilities	8.7	2.6					0.7	12.0
Total liabilities	830.0	36.0	63.0	36.2	41.6	36.5	14.4	1,057.7
Guarantees, loan commitments and forward starting transactions³								
Loan commitments	38.3	0.5	0.7	0.0				39.5
Guarantees	21.2							21.2
Forward starting transactions, reverse repurchase and securities borrowing agreements	1.4							1.4
Total	60.9	0.5	0.7	0.0				62.1

- 1 Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. Refer to Note 1b for more information.
- 2 As of 31 December 2022 and 31 December 2021, the contractual redemption amount at maturity of debt issued designated at fair value through profit or loss and other financial liabilities measured at fair value through profit or loss was not materially different from the carrying amount.
- 3 The notional amounts associated with derivative loan commitments, as well as forward starting repurchase and reverse repurchase agreements, measured at fair value through profit or loss are presented together with notional amounts related to derivative instruments and have been excluded from the table above. Refer to Note 10 for more information.

Note 23 Maturity analysis of assets and liabilities (continued)

b) Maturity analysis of financial liabilities on an undiscounted basis

The table below provides an analysis of financial liabilities on an undiscounted basis, including all cash flows relating to principal and future interest payments. The residual contractual maturities for non-derivative and non-trading financial liabilities are based on the earliest date on which UBS could be contractually required to pay. Derivative positions and trading liabilities, predominantly made up of short sale transactions, are presented in the Due within 1 month column, as this provides a conservative reflection of the nature of these trading activities. The residual contractual maturities may extend over significantly longer periods.

USD bn	31.12.22							Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 2 years	Due between 2 and 5 years	Due over 5 years	Perpetual / Not applicable	
Financial liabilities recognized on balance sheet¹								
Amounts due to banks	6.3	2.6	1.9	0.3	0.6	0.0		11.7
Payables from securities financing transactions	3.3	0.3	0.4	0.3		0.0		4.4
Cash collateral payables on derivative instruments	36.4							36.4
Customer deposits	464.6	28.8	24.5	8.2	2.6	0.3		529.0
Funding from UBS Group AG ²	2.2	0.6	1.2	6.8	27.6	21.2	12.7	72.3
Debt issued measured at amortized cost	4.6	8.9	23.7	7.8	10.8	6.9		62.8
Other financial liabilities measured at amortized cost	5.6	0.1	0.4	0.5	1.2	1.3		9.2
<i>of which: lease liabilities</i>	<i>0.1</i>	<i>0.1</i>	<i>0.4</i>	<i>0.5</i>	<i>1.2</i>	<i>1.3</i>		<i>3.7</i>
Total financial liabilities measured at amortized cost^{3, 5}	523.1	41.2	52.2	24.0	42.8	29.8	12.7	725.8
Financial liabilities at fair value held for trading ^{3, 4}	29.5							29.5
Derivative financial instruments ^{3, 5}	154.9							154.9
Brokerage payables designated at fair value	45.1							45.1
Debt issued designated at fair value ⁶	9.4	12.4	16.0	19.7	7.1	12.3		76.8
Other financial liabilities designated at fair value	27.1	1.4	0.4	0.4	0.5	5.0		34.8
Total financial liabilities measured at fair value through profit or loss	266.0	13.8	16.4	20.0	7.5	17.3		341.1
Total	789.2	55.0	68.6	44.0	50.3	47.1	12.7	1,066.9
Guarantees, commitments and forward starting transactions								
Loan commitments ⁷	39.3	0.3	0.4	0.0				40.0
Guarantees	22.4							22.4
Forward starting transactions, reverse repurchase and securities borrowing agreements ⁷	3.8							3.8
Total	65.4	0.3	0.4	0.0				66.2

USD bn	31.12.21							Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 2 years	Due between 2 and 5 years	Due over 5 years	Perpetual / Not applicable	
Financial liabilities recognized on balance sheet¹								

Amounts due to banks	6.7	2.4	3.5	0.0	0.5			13.1
Payables from securities financing transactions	3.8	0.3	1.6	0.0				5.7
Cash collateral payables on derivative instruments	31.8							31.8
Customer deposits	531.0	6.6	3.3	2.0	1.9	0.4		545.1
Funding from UBS Group AG ²	0.2	3.3	2.3	7.8	21.1	16.9	13.7	65.3
Debt issued measured at amortized cost	3.8	9.4	38.8	9.0	16.1	7.6		84.7
Other financial liabilities measured at amortized cost	5.3	0.1	0.4	0.6	1.2	1.5		9.1
<i>of which: lease liabilities</i>	<i>0.1</i>	<i>0.1</i>	<i>0.4</i>	<i>0.6</i>	<i>1.2</i>	<i>1.5</i>		<i>3.9</i>
Total financial liabilities measured at amortized cost	582.6	22.1	49.9	19.4	40.8	26.4	13.7	754.8
Financial liabilities at fair value held for trading ^{3,4}	31.7							31.7
Derivative financial instruments ^{3,5}	121.3							121.3
Brokerage payables designated at fair value	44.0							44.0
Debt issued designated at fair value ⁶	13.8	11.5	13.5	18.8	5.6	12.5		75.9
Other financial liabilities designated at fair value	28.1	0.4	0.5	0.2	0.2	7.1		36.5
Total financial liabilities measured at fair value through profit or loss	239.0	11.9	14.0	19.0	5.8	19.6		309.4
Total	821.6	34.0	63.9	38.4	46.6	45.9	13.7	1,064.2
Guarantees, commitments and forward starting transactions								
Loan commitments ⁷	38.3	0.5	0.7	0.0				39.5
Guarantees	21.2							21.2
Forward starting transactions, reverse repurchase and securities borrowing agreements ⁷	1.4							1.4
Total	60.9	0.5	0.7	0.0				62.1

- 1 Except for financial liabilities at fair value held for trading and derivative financial instruments (see footnote 3), the amounts presented generally represent undiscounted cash flows of future interest and principal payments.
- 2 The time-bucket Perpetual / Not applicable includes perpetual loss-absorbing additional tier 1 capital instruments.
- 3 Carrying amount is fair value. Management believes that this best represents the cash flows that would have to be paid if these positions had to be settled or closed out.
- 4 Contractual maturities of financial liabilities at fair value held for trading are: USD 27.8bn due within 1 month (31 December 2021: USD 30.8bn), USD 1.7bn due between 1 month and 1 year (31 December 2021: USD 0.9bn) and USD 0bn due between 1 and 5 years (31 December 2021: USD 0bn).
- 5 Includes USD 46m (31 December 2021: USD 34m) related to fair values of derivative loan commitments and forward starting reverse repurchase agreements classified as derivatives, presented within "Due within 1 month." The full contractual committed amount of USD 34.4bn (31 December 2021: USD 36.0bn) is presented in Note 10 under notional amounts.
- 6 Future interest payments on variable-rate liabilities are determined by reference to the applicable interest rate prevailing as of the reporting date. Future principal payments that are variable are determined by reference to the conditions existing at the relevant reporting date.
- 7 Excludes derivative loan commitments and forward starting reverse repurchase agreements measured at fair value (see footnote 5).

Note 24 Interest rate benchmark reform

Background

A market-wide reform of major interest rate benchmarks is being undertaken globally. The publication of London Interbank Offered Rates (LIBORs) ceased immediately after 31 December 2021 for all non-US dollar LIBORs, as well as for one-week and two-month USD LIBOR. Publication of the remaining USD LIBOR tenors will cease immediately after 30 June 2023.

In December 2022, the FCA consulted on the continued publication of one-, three- and six-month USD LIBOR under a synthetic format until the end of September 2024 to ensure an orderly winding down of remaining contracts that are not governed by US law. In addition, in December 2022, the US Federal Reserve Board adopted the final rules that implement the Adjustable Interest Rate (LIBOR) Act, which is substantially based on, and supersedes, the New York State LIBOR legislation. The Adjustable Interest Rate (LIBOR) Act provides a legislative solution for USD LIBOR legacy products governed by any US state law should such products fail to transition prior to the USD LIBOR cessation date of 30 June 2023.

A framework has been established within UBS AG to address the transition of contracts that do not contain adequate fallback provisions and to cease entering into new LIBOR contracts, with the exception of specific circumstances that are allowed by regulatory provisions for USD LIBOR.

Governance over the transition to alternative benchmark rates

Throughout the transition process UBS AG has been maintaining a global cross-divisional, cross-functional governance structure and change program to address the scale and complexity of the transition. This global program is sponsored by the Group CFO and led by senior representatives from the business divisions and UBS AG's control and support functions. The program includes governance and execution structures within each business division, together with cross-divisional teams from each control and support function. During 2022, progress was overseen centrally via a monthly Group LIBOR Transition Forum with an increased US regional focus.

Risks

A core part of UBS AG's change program is the identification, management and monitoring of the risks associated with IBOR reform and transition. These risks include, but are not limited to, the following:

- economic risks to UBS AG and its clients, through the repricing of existing contracts, reduced transparency and / or liquidity of pricing information, market uncertainty or disruption;
- accounting risks, where the transition affects the accounting treatment, including hedge accounting and consequential income statement volatility;
- valuation risks arising from the variation between benchmarks that will cease and ARR, affecting the risk profile of financial instruments;
- operational risks arising from changes to UBS AG's front-to-back processes and systems to accommodate the transition (e.g., data sourcing and processing and bulk migration of contracts); and
- legal and conduct risks relating to UBS AG's engagement with clients and market counterparties around new benchmark products and amendments required for existing contracts referencing benchmarks that will cease.

Overall, the effort required to transition is affected by multiple factors, including whether negotiations need to take place with multiple stakeholders (as is the case for syndicated loans or certain listed securities), market readiness and a client's technical readiness to handle ARR market conventions. UBS AG remains confident that it has the transparency, oversight and operational preparedness to progress with the IBOR transition consistent with market timelines, given the significant progress made as of 31 December 2022. UBS AG did not have and does not expect changes to its risk management approach and strategy as a result of interest rate benchmark reform.

Transition progress

UBS AG's significant non-derivative exposures subject to IBOR reform primarily related to brokerage receivable and payable balances, corporate and private loans, and mortgages, linked to CHF and USD LIBORs. During 2020, UBS AG transitioned most of its CHF LIBOR-linked deposits to the Swiss Average Overnight Rate (SARON). In that same year, UBS AG launched SARON-based mortgages and corporate loans based on all major ARRs in the Swiss market, as well as Secure Overnight Financing Rate (SOFR)-based mortgages in the US market.

Throughout 2021, UBS AG transitioned substantially all of its private and corporate loans linked to non-USD IBORs, with the remaining CHF LIBOR-linked contracts transitioning on their first roll date in 2022. In addition, as of 31 December 2021 UBS AG had completed the transition of IBOR-linked non-derivative financial assets and liabilities related to brokerage accounts, except for balances originated in the US, which transitioned to SOFR in January 2022.

Note 24 Interest rate benchmark reform (continued)

In 2022, UBS AG focused its efforts on the transition of USD LIBOR and the remaining non-USD LIBOR contracts, by leveraging industry solutions (e.g., the use of fallback provisions), through third-party actions (those by clearing houses, agents, etc.) and bi-lateral contract negotiations. As of 31 December 2022, the transition of non-USD IBORs is substantially complete.

In addition, in 2022, substantially all US securities-based lending has been transitioned to SOFR and UBS AG continues to make good progress on the transition of the remaining USD LIBOR non-derivative assets and liabilities, with the US mortgage portfolio of USD 9bn (31 December 2021: USD 11bn) the largest remaining exposure left to transition.

In August 2022, to facilitate the transition of derivatives linked to the USD LIBOR Swap Rate, UBS AG adhered to the June 2022 Benchmark Module of the ISDA 2021 Fallbacks Protocol on the USD LIBOR Swap Rate. UBS AG will begin gradually transitioning USD LIBOR derivatives not transacted with clearing houses or exchanges from the first quarter of 2023. The transition of USD LIBOR-cleared derivatives is planned to commence in the second quarter of 2023.

As of 31 December 2022, UBS AG had approximately USD 3bn equivalent of yen- and US dollar-denominated funding from UBS Group AG that, per current contractual terms, if not called on their respective call dates, would reset based directly on JPY LIBOR and USD LIBOR. In addition, certain US dollar-denominated contracts providing funding from UBS Group AG reference rates indirectly derived from IBORs, if they are not called on their respective call dates. These contracts have robust IBOR fallback language and the confirmation of interest rate calculation mechanics will be communicated as market standards formalize and in advance of any rate resets. These debt instruments have not been included in the table below, given their current fixed-rate coupon.

Financial instruments yet to transition to alternative benchmarks

The amounts included in the table below relate to financial instrument contracts across UBS AG's business divisions where UBS AG has material exposures subject to IBOR reform that have not yet transitioned to ARR, and that:

- contractually reference an interest rate benchmark that will transition to an alternative benchmark; and
- have a contractual maturity date (including open-ended contracts) after the agreed cessation dates.

Contracts where penalty terms reference IBORs, or where exposure to an IBOR is not the primary purpose of the contract, have not been included, as these contracts do not have a material impact on the transition process.

In line with information provided to management and external parties monitoring UBS AG's transition progress, the table below includes the following financial metrics for instruments external to UBS AG that are subject to interest rate benchmark reform:

- gross carrying value / exposure for non-derivative financial instruments; and
- total trade count for derivative financial instruments.

The exposures included in the table below reflect the maximum IBOR exposure, without regard for early termination rights, with the actual exposure being dependent upon client preferences and investment decisions.

As of 31 December 2022, UBS AG had made significant progress in transitioning LIBOR exposures to ARR. The remaining USD LIBOR-linked exposures included in the table below primarily relate to derivatives and US mortgages, with the transition planned to be completed by 30 June 2023.

	Measure	LIBOR benchmark rates					
		31.12.22 ¹	31.12.21				
		USD	USD	CHF	GBP	EUR ²	JPY
Carrying value of non-derivative financial instruments							
Total non-derivative financial assets	USD m	14,269 ³	65,234 ³	21,616 ⁴	45 ⁵	1	0
Total non-derivative financial liabilities	USD m	1,138 ⁵	1,985 ⁵	27 ⁵	3 ⁵	5 ⁶	0
Trade count of derivative financial instruments							
Total derivative financial instruments	Trade count	32,006 ⁷	40,500 ^{7,8}	829 ⁹	183 ⁹	3,744 ⁹	184 ⁹
Off-balance sheet exposures							
Total irrevocable loan commitments	USD m	4,606 ¹⁰	11,863 ¹¹	0	0	0	0

1 As of 31 December 2022, non-USD balances and trade counts are minimal.

2 Relates primarily to EUR LIBOR positions.

3 Includes USD 1bn (31 December 2021: USD 1bn) of loans related to revolving multi-currency credit lines, where IBOR transition efforts are complete, except for USD LIBOR. Balances as of 31 December 2021 also include USD 37bn USD LIBOR securities-based lending and USD 5bn brokerage accounts, which for the most part transitioned to SOFR in January 2022. The remaining balances as of 31 December 2022 and 31 December 2021 primarily relate to US mortgages and corporate lending.

- 4 Relates primarily to CHF LIBOR mortgages, which have automatically transitioned to SARON on their first roll date in 2022.
- 5 Relates to floating-rate notes that per their contractual terms can reset to rates linked to LIBOR, with transition dependent upon the actions of respective issuers.
- 6 Relates to contracts that transitioned in January 2022.
- 7 Includes approximately 2,000 (31 December 2021: 1,000) contracts having a contractual maturity after 30 June 2023, with the last USD LIBOR fixing occurring before 30 June 2023. No further contractual fixing is required for these contracts.
- 8 Includes approximately 5,000 cross-currency derivatives, of which approximately 500 have both a non-USD LIBOR leg and a USD LIBOR leg, where the non-USD leg transitioned in January 2022 before the next fixing date. The remainder represents cross-currency swaps with an ARR leg and a USD IBOR leg.
- 9 Includes predominantly bilateral derivatives, which transitioned in January 2022, and an insignificant amount of cleared derivatives, where the respective clearing houses' organized transition happened in January 2022.
- 10 Includes approximately USD 3bn of loan commitments that can be drawn in different currencies, however only USD LIBOR transition efforts remain open, with completion scheduled for 2023.
- 11 Includes loan commitments that can be drawn in different currencies at the client's discretion, of which approximately USD 3bn have only USD LIBOR exposure remaining and approximately USD 2bn retain a non-USD LIBOR interest rate, with transition dependent upon the actions of other parties. The remainder represents loan commitments that can be drawn in US dollars only and will transition on or before 30 June 2023.

Note 25 Hedge accounting

Derivatives designated in hedge accounting relationships

UBS AG applies hedge accounting to interest rate risk and foreign exchange risk, including structural foreign exchange risk related to net investments in foreign operations.

- **Refer to “Market risk” in the “Risk management and control” section of this report for more information about how risks arise and how they are managed by UBS AG**

Hedging instruments and hedged risk

Interest rate swaps are designated in fair value hedges or cash flow hedges of interest rate risk arising solely from changes in benchmark interest rates. Fair value changes arising from such risk are usually the largest component of the overall change in the fair value of the hedged position in transaction currency.

Cross-currency swaps are designated as fair value hedges of foreign exchange risk. Foreign exchange forwards and foreign exchange swaps are mainly designated as hedges of structural foreign exchange risk related to net investments in foreign operations. In both cases the hedged risk arises solely from changes in the spot foreign exchange rate.

The notional of the designated hedging instruments matches the notional of the hedged items, except when the interest rate swaps are re-designated in cash flow hedges, in which case the hedge ratio designated is determined based on the swap sensitivity.

Hedged items and hedge designation

Fair value hedges of interest rate risk related to debt instruments and loan assets

Fair value hedges of interest rate risk related to debt instruments and loan assets involve swapping fixed cash flows associated with the debt issued, funding from UBS Group AG, debt securities held and long-term fixed-rate mortgage loans in Swiss francs to floating cash flows by entering into interest rate swaps that either receive fixed and pay floating cash flows or that pay fixed and receive floating cash flows.

Designations have been made in US dollars, euro, Swiss francs, Australian dollars, yen, pounds sterling and Singapore dollars. For new hedging instruments and hedged risk designations entered into starting from 2021 in these currencies (with the exception of euro), the benchmark rate was the relevant alternative reference rate (ARR). Following the interbank offered rate (IBOR) transition for swaps with LCH (formerly the London Clearing House) in December 2021, the benchmark hedge rate for Swiss franc, yen and pound sterling designations was changed from an IBOR rate to the relevant ARR with the hedge relationship continuing in accordance with *Interest Rate Benchmark Reform – Phase 2 (Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16)*.

Cash flow hedges of forecast transactions

UBS AG hedges forecast cash flows on non-trading financial assets and liabilities that bear interest at variable rates or are expected to be refinanced or reinvested in the future, due to movements in future market rates. The amounts and timing of future cash flows, representing both principal and interest flows, are projected on the basis of contractual terms and other relevant factors, including estimates of prepayments and defaults. The aggregate principal balances and interest cash flows across all portfolios over time form the basis for identifying the non-trading interest rate risk of UBS AG, which is hedged with interest rate swaps, the maximum maturity of which is 15 years. Cash flow forecasts and risk exposures are monitored and adjusted on an ongoing basis, and consequently additional hedging instruments are traded and designated, or are terminated resulting in a hedge discontinuance. Hedge designations have been made in the following currencies: US dollars, euro, Swiss francs, pounds sterling and Hong Kong dollars. The cash flow hedges in Swiss francs, pounds sterling and certain cash flow hedges in US dollars were discontinued and replaced with new ARR designations in December 2021. In addition, the transition of floating rate hedged items in USD to ARR rates in January 2022 resulted in the update of the hedged risk to ARR in the affected hedge relationships without discontinuation of hedge accounting in accordance with *Interest Rate Benchmark Reform – Phase 2 (Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16)*.

Fair value hedges of foreign exchange risk related to issued debt instruments

Debt instruments denominated in currencies other than the US dollar are designated in fair value hedges of spot foreign exchange risk, in addition to and separate from the fair value hedges of interest rate risk. Cross-currency swaps economically convert debt denominated in currencies other than the US dollar to US dollars.

Hedges of net investments in foreign operations

UBS AG applies hedge accounting for certain net investments in foreign operations, which include subsidiaries, branches and associates. Upon maturity of hedging instruments, typically two months, the hedge relationship is terminated and new designations are made to reflect any changes in the net investments in foreign operations.

Note 25 Hedge accounting (continued)

Fair value hedges: designated hedged items

<i>USD m</i>	31.12.22		31.12.21	
	Interest rate risk	FX risk	Interest rate risk	FX risk
Debt issued measured at amortized cost				
Carrying amount of designated debt issued	11,279	5,737	21,653	11,392
<i>of which: accumulated amount of fair value hedge adjustment</i>	(1,002)		261	
Funding from UBS Group AG				
Carrying amount of designated debt instruments	57,250	14,828	53,047	16,483
<i>of which: accumulated amount of fair value hedge adjustment</i>	(5,055)		218	
Other financial assets measured at amortized cost – debt securities				
Carrying amount of designated debt securities	4,577		2,677	
<i>of which: accumulated amount of fair value hedge adjustment</i>	(180)		(7)	
Loans and advances to customers				
Carrying amount of designated loans	14,270		13,835	
<i>of which: accumulated amount of fair value hedge adjustment</i>	(1,249)		(109)	
<i>of which: accumulated amount of fair value hedge adjustment subject to amortization attributable to the portion of the portfolio that ceased to be part of hedge accounting</i>	(51)		3	

Fair value hedges: profile of the timing of the nominal amount of the hedging instrument

<i>USD bn</i>	31.12.22					Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 5 years	Due after 5 years	
Interest rate swaps	0	4	10	53	26	92
Cross-currency swaps	0	1	2	12	5	21

<i>USD bn</i>	31.12.21					Total
	Due within 1 month	Due between 1 and 3 months	Due between 3 and 12 months	Due between 1 and 5 years	Due after 5 years	
Interest rate swaps	0	8	10	49	22	90
Cross-currency swaps	1	1	6	13	6	28

Cash flow hedge reserve on a pre-tax basis

<i>USD m</i>	31.12.22	31.12.21
Amounts related to hedge relationships for which hedge accounting continues to be applied	(4,692)	26
Amounts related to hedge relationships for which hedge accounting is no longer applied	(540)	743
Total other comprehensive income recognized directly in equity related to cash flow hedges, on a pre-tax basis	(5,232)	769

Foreign currency translation reserve on a pre-tax basis

<i>USD m</i>	31.12.22	31.12.21
Amounts related to hedge relationships for which hedge accounting continues to be applied	250	(61)
Amounts related to hedge relationships for which hedge accounting is no longer applied	266	262
Total other comprehensive income recognized directly in equity related to hedging instruments designated as net investment hedges, on a pre-tax basis	515	201

Interest rate benchmark reform

UBS AG continues to apply the relief provided by *Interest Rate Benchmark Reform (amendments to IFRS 9, IAS 39 and IFRS 7)*, published by the IASB in September 2019, mainly to its hedges in USD. The cessation date for USD LIBOR is 30 June 2023.

The following table provides details on the notional amount and carrying amount of the hedging instruments in the hedge relationships where the designated risk is LIBOR and maturing after the cessation date of the applicable interest rate benchmarks.

Hedges of net investments in foreign operations are not affected by the amendments.

- **Refer to Note 1a item 2j for more information about the relief provided by the amendments to IFRS 9 and IFRS 7 related to interest rate benchmark reform**
- **Refer to Note 24 for more information about the transition progress**
- **Refer to earlier parts of this Note for the information about the transition progress of fair value and cash flow hedges**

Note 25 Hedge accounting (continued)

Hedging instruments referencing LIBOR

<i>USD m</i>	31.12.22			31.12.21		
	Notional amount	Carrying amount		Notional amount	Carrying amount	
Derivative financial assets		Derivative financial liabilities	Derivative financial assets		Derivative financial liabilities	
Interest rate risk						
Fair value hedges	20,383	0	0	23,367	0	0
Cash flow hedges	2,179	0	0	10,803	0	0

Note 26 Post-employment benefit plans

a) Defined benefit plans

UBS AG has established defined benefit plans for its employees in various jurisdictions in accordance with local regulations and practices. The major plans are located in Switzerland, the UK, the US and Germany. The level of benefits depends on the specific plan rules.

Swiss pension plan

The Swiss pension plan covers employees of UBS Group AG in Switzerland and employees of companies in Switzerland having close economic or financial ties with UBS Group AG, and exceeds the minimum benefit requirements under Swiss pension law. In 2017, a significant number of employees were transferred from UBS AG to UBS Business Solutions AG, which is a directly held subsidiary of UBS Group AG. There continues to be one pooled pension plan in Switzerland covering the employees of UBS AG and those transferred to UBS Business Solutions AG. UBS AG and UBS Business Solutions AG both are legal sponsors of UBS's Swiss pension plan. Since the date of the employee transfer, UBS AG and UBS Business Solutions AG apply proportionate defined benefit accounting, i.e., the net pension cost and the net pension asset / liability of the Swiss pension plan are allocated proportionally between UBS AG and UBS Business Solutions AG based on the aggregated net pension cost and defined benefit obligations related to their employees. The Swiss plan offers retirement, disability and survivor benefits and is governed by a Pension Foundation Board. The responsibilities of this board are defined by Swiss pension law and the plan rules.

Savings contributions to the Swiss plan are paid by both employer and employee. Depending on the age of the employee, UBS AG pays a savings contribution that ranges between 6.5% and 27.5% of contributory base salary and between 2.8% and 9% of contributory variable compensation. UBS AG also pays risk contributions that are used to fund disability and survivor benefits. Employees can choose the level of savings contributions paid by them, which vary between 2.5% and 13.5% of contributory base salary and between 0% and 9% of contributory variable compensation, depending on age and choice of savings contribution category.

The plan offers to members at the normal retirement age of 65 a choice between a lifetime pension and a partial or full lump sum payment. Participants can choose to draw early retirement benefits starting from the age of 58, but can also continue employment and remain active members of the plan until the age of 70. Employees have the opportunity to make additional purchases of benefits to fund early retirement benefits.

The pension amount payable to a participant is calculated by applying a conversion rate to the accumulated balance of the participant's retirement savings account at the retirement date. The balance is based on credited vested benefits transferred from previous employers, purchases of benefits, and the employee and employer contributions that have been made to the participant's retirement savings account, as well as the interest accrued. The annual interest rate credited to participants is determined by the Pension Foundation Board at the end of each year.

Although the Swiss plan is based on a defined contribution promise under Swiss pension law, it is accounted for as a defined benefit plan under International Financial Reporting Standards (IFRS), primarily because of the obligation to accrue interest on the participants' retirement savings accounts and the payment of lifetime pension benefits.

An actuarial valuation in accordance with Swiss pension law is performed regularly. Should an underfunded situation on this basis occur, the Pension Foundation Board is required to take the necessary measures to ensure that full funding can be expected to be restored within a maximum period of 10 years. If a Swiss plan were to become significantly underfunded on a Swiss pension law basis, additional employer and employee contributions could be required. In this situation, the risk is shared between employer and employees, and the employer is not legally obliged to cover more than 50% of the additional contributions required. As of 31 December 2022, the Swiss plan had a technical funding ratio in accordance with Swiss pension law of 119.0% (31 December 2021: 134.8%).

Note 26 Post-employment benefit plans (continued)

The investment strategy of the Swiss plan complies with Swiss pension law, including the rules and regulations relating to diversification of plan assets, and is derived from the risk budget defined by the Pension Foundation Board on the basis of regularly performed asset and liability management analyses. The Pension Foundation Board strives for a medium- and long-term balance between assets and liabilities.

As of 31 December 2022, the Swiss plan was in a surplus situation on an IFRS measurement basis, as the fair value of the plan's assets exceeded the defined benefit obligation (DBO) by USD 4,418m (31 December 2021: USD 3,716m). However, a surplus is only recognized on the balance sheet to the extent that it does not exceed the estimated future economic benefit, which equals the difference between the present value of the estimated future net service cost and the present value of the estimated future employer contributions. As of both 31 December 2022 and 31 December 2021, the estimated future economic benefit was zero and hence no net defined benefit asset was recognized on the balance sheet.

Changes to the Swiss pension plan in 2019

The Pension Foundation Board and UBS AG agreed to implement measures that took effect from the start of 2019 to support the long-term financial stability of the Swiss pension fund. The measures, among other things, lowered the conversion rate and increased the normal retirement age from 64 to 65. Pensions already in payment on 1 January 2019 were not affected.

To mitigate the effects for active participants, UBS AG committed to pay an extraordinary contribution and contributed CHF 390m (USD 421m) in three installments in 2020, 2021 and 2022. The installments of USD 143m, USD 152m and USD 126m paid in 2020, 2021 and 2022 reduced other comprehensive income with no effect on the income statement.

The regular employer contributions to be made to the Swiss plan in 2023 are estimated at USD 275m.

UK pension plan

The UK plan is a career-average revalued earnings scheme, and benefits increase automatically based on UK price inflation, subject to defined caps. The normal retirement age for participants in the UK plan is 60. The plan provides guaranteed lifetime pension benefits to participants upon retirement. The UK plan has been closed to new entrants for more than 20 years and, since 2013, participants are no longer accruing benefits for current or future service. Instead, employees participate in the UK defined contribution plan.

The governance responsibility for the UK plan lies jointly with the Pension Trustee Board and UBS AG. The employer contributions to the pension fund reflect agreed-upon deficit funding contributions, which are determined on the basis of the most recent actuarial valuation using assumptions agreed by the Pension Trustee Board and UBS AG. In the event of underfunding, UBS AG and the Pension Trustee Board must agree on a deficit recovery plan within statutory deadlines. In 2022, UBS AG made deficit funding contributions of USD 5m to the UK plan. In 2021, UBS AG made no deficit funding contributions.

The plan assets are invested in a diversified portfolio of financial assets, which include longevity swaps with an external insurance company. These swaps enable the UK pension plan to hedge the risk between expected and actual longevity, which should mitigate volatility in the net defined benefit asset / liability. As of 31 December 2022, the longevity swaps had a negative value of USD 1m (31 December 2021: negative USD 3m).

In 2019, UBS AG and the Pension Trustee Board entered into an arrangement whereby a collateral pool was established to provide security for the pension fund. The value of the collateral pool as of 31 December 2022 was USD 292m (31 December 2021: USD 337m) and includes corporate bonds, government-related debt instruments and other financial assets. The arrangement provides the Pension Trustee Board dedicated access to a pool of assets in the event of UBS AG's insolvency or not paying a required deficit funding contribution.

The employer contributions to be made to the UK defined benefit plan in 2023 are estimated at USD 18m, subject to regular funding reviews during the year.

Note 26 Post-employment benefit plans (continued)

US pension plans

There are two distinct major defined benefit plans in the US, with a normal retirement age of 65. Both plans were closed to new entrants more than 20 years ago. Since they closed, new employees have participated in a defined contribution plan.

One of the defined benefit plans is a contribution-based plan in which each participant accrues a percentage of salary in a retirement savings account. The retirement savings account is credited annually with interest based on a rate that is linked to the average yield on one-year US government bonds. For the other defined benefit plan, retirement benefits accrue based on the career-average earnings of each individual plan participant. Former employees with vested benefits have the option of taking a lump sum payment or a lifetime annuity.

As required under applicable pension laws, both plans have fiduciaries who, together with UBS AG, are responsible for the governance of the plans.

The plan assets of both plans are invested in diversified portfolios of financial assets. Each plan's fiduciaries are responsible for the investment decisions with respect to the plan assets.

The employer contributions to be made to the US defined benefit plans in 2023 are estimated at USD 11m.

German pension plans

There are two unfunded defined benefit plans in Germany. The normal retirement age is 65 and benefits are paid directly by UBS AG. In the larger of the two plans each participant accrues a percentage of salary in a retirement savings account. The accumulated account balance of the participant is credited on an annual basis with guaranteed interest at a rate of 5%. The plan has been closed to new entrants, and all participants younger than the age of 55 as of June 2021 no longer accrue benefits. In the other plan, amounts are accrued annually based on employee elections related to variable compensation. For this plan, the accumulated account balance is credited on an annual basis with a guaranteed interest rate of 6% for amounts accrued before 2010, of 4% for amounts accrued from 2010 to 2017 and of 0.9% for amounts accrued after 2017. Both plans are subject to German pension law, whereby the responsibility to pay pension benefits when they are due resides entirely with UBS AG. A portion of the pension payments is directly increased in line with price inflation.

In June 2021, UBS AG implemented a new funded pension plan with interest credited to participants equal to actual investment returns with a guaranteed minimum of 0%. The plan was implemented retrospectively for new hires since June 2018 and for all eligible active participants younger than 55 from July 2021. Each participant accrues a percentage of salary in a retirement savings account.

The employer contributions to be made to the German defined benefit plans in 2023 are estimated at USD 12m.

Financial information by plan

The tables below provide an analysis of the movement in the net asset / liability recognized on the balance sheet for defined benefit plans, as well as an analysis of amounts recognized in net profit and in *Other comprehensive income*.

Note 26 Post-employment benefit plans (continued)

Defined benefit plans

USD m	Swiss pension plan		UK pension plan		US and German pension plans		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Defined benefit obligation at the beginning of the year	15,480	15,619	4,105	4,162	1,740	1,905	21,324	21,686
Current service cost	240	285	0	0	5	6	244	291
Interest expense	195	33	67	58	35	30	297	122
Plan participant contributions	154	161	0	0	0	0	154	161
Remeasurements	(2,424)	490	(1,474)	71	(267)	(62)	(4,165)	498
<i>of which: actuarial (gains) / losses due to changes in demographic assumptions</i>	2	26	(6)	14	1	4	(3)	45
<i>of which: actuarial (gains) / losses due to changes in financial assumptions</i>	(2,653)	(385)	(1,575)	(3)	(279)	(78)	(4,506)	(466)
<i>of which: experience (gains) / losses¹</i>	226	848	107	59	11	12	344	919
Past service cost related to plan amendments	0	0	0	0	0	4	0	4
Curtailments	(13)	(49)	0	0	0	0	(13)	(49)
Benefit payments	(796)	(602)	(123)	(148)	(111)	(112)	(1,030)	(862)
Other movements	(5)	0	0	0	0	1	(5)	1
Foreign currency translation	(291)	(456)	(408)	(38)	(28)	(33)	(727)	(527)
Defined benefit obligation at the end of the year	12,539	15,480	2,166	4,105	1,375	1,740	16,080	21,324
<i>of which: amounts owed to active members</i>	7,103	8,604	65	150	169	222	7,336	8,976
<i>of which: amounts owed to deferred members</i>	0	0	656	1,593	528	669	1,184	2,262
<i>of which: amounts owed to retirees</i>	5,436	6,876	1,445	2,362	678	849	7,560	10,086
<i>of which: funded plans</i>	12,539	15,480	2,166	4,105	1,011	1,222	15,717	20,806
<i>of which: unfunded plans</i>	0	0	0	0	363	518	363	518
Fair value of plan assets at the beginning of the year	19,196	18,358	4,297	4,149	1,329	1,360	24,821	23,867
Return on plan assets excluding interest income	(1,942)	1,319	(1,312)	277	(223)	40	(3,476)	1,637
Interest income	274	42	70	58	31	26	376	127
Employer contributions	401	450	5	0	16	16	422	466
Plan participant contributions	154	161	0	0	0	0	154	161
Benefit payments	(796)	(602)	(123)	(148)	(111)	(112)	(1,030)	(862)
Administration expenses, taxes and premiums paid	(7)	(8)	0	0	(3)	(4)	(11)	(11)
Other movements	(1)	0	0	0	0	1	(1)	1
Foreign currency translation	(322)	(524)	(450)	(39)	0	0	(772)	(563)
Fair value of plan assets at the end of the year	16,957	19,196	2,488	4,297	1,039	1,329	20,484	24,821
Surplus / (deficit)	4,418	3,716	321	192	(335)	(411)	4,404	3,497
Asset ceiling effect at the beginning of the year	3,716	2,739	0	0	0	0	3,716	2,739
Interest expense on asset ceiling effect	77	8	0	0	0	0	77	8
Asset ceiling effect excluding interest expense and foreign currency translation on asset ceiling effect	656	1,037	0	0	0	0	656	1,037
Foreign currency translation	(31)	(68)	0	0	0	0	(31)	(68)
Asset ceiling effect at the end of the year	4,418	3,716	0	0	0	0	4,418	3,716
Net defined benefit asset / (liability) of major plans	0	0	321	192	(335)	(411)	(14)	(219)
Net defined benefit asset / (liability) of remaining plans							(80)	(96)
Total net defined benefit asset / (liability)							(94)	(315)
<i>of which: Net defined benefit asset</i>							355	302
<i>of which: Net defined benefit liability²</i>							(449)	(617)

1 Experience (gains) / losses are a component of actuarial remeasurements of the defined benefit obligation and reflect the effects of differences between the previous actuarial assumptions and what has actually occurred.

2 Refer to Note 18c.

Note 26 Post-employment benefit plans (continued)

Income statement – expenses related to defined benefit plans¹

<i>USD m</i> For the year ended	Swiss pension plan		UK pension plan		US and German pension plans		Total	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Current service cost	240	285	0	0	5	6	244	291
Interest expense related to defined benefit obligation	195	33	67	58	35	30	297	122
Interest income related to plan assets	(274)	(42)	(70)	(58)	(31)	(26)	(376)	(127)
Interest expense on asset ceiling effect	77	8	0	0	0	0	77	8
Administration expenses, taxes and premiums paid	7	8	0	0	3	4	11	11
Past service cost related to plan amendments	0	0	0	0	0	4	0	4
Curtailments	(13)	(49)	0	0	0	0	(13)	(49)
Net periodic expenses recognized in net profit for major plans	230	243	(3)	0	12	18	239	261
Net periodic expenses recognized in net profit for remaining plans²							17	19
Total net periodic expenses recognized in net profit							256	280

1 Refer to Note 6.

2 Includes differences between actual and estimated performance award accruals.

Other comprehensive income – gains / (losses) on defined benefit plans

<i>USD m</i> For the year ended	Swiss pension plan		UK pension plan		US and German pension plans		Total	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Remeasurement of defined benefit obligation	2,424	(490)	1,474	(71)	267	62	4,165	(498)
<i>of which: change in discount rate assumption</i>	3,078	494	1,451	319	317	77	4,846	890
<i>of which: change in rate of pension increase assumption</i>	0	0	123	(316)	(5)	(1)	118	(318)
<i>of which: change in rate of interest credit on retirement savings assumption</i>	(408)	(110)	0	0	(82)	(1)	(490)	(110)
<i>of which: change in life expectancy</i>	0	0	5	9	(1)	(3)	4	5
<i>of which: change in other actuarial assumptions</i>	(19)	(26)	1	(23)	48	2	30	(47)
<i>of which: experience gains / (losses)¹</i>	(226)	(848)	(107)	(59)	(11)	(12)	(344)	(919)
Return on plan assets excluding interest income	(1,942)	1,319	(1,312)	277	(223)	40	(3,476)	1,637
Asset ceiling effect excluding interest expense and foreign currency translation	(656)	(1,037)	0	0	0	0	(656)	(1,037)
Total gains / (losses) recognized in other comprehensive income for major plans	(173)	(207)	162	207	43	102	32	102
Total gains / (losses) recognized in other comprehensive income for remaining plans							8	31
Total gains / (losses) recognized in other comprehensive income²							40	133

1 Experience (gains) / losses are a component of actuarial remeasurements of the defined benefit obligation and reflect the effects of differences between the previous actuarial assumptions and what has actually occurred.

2 Refer to the “Statement of comprehensive income.”

The table below provides information about the duration of the DBO and the timing for expected benefit payments.

	Swiss pension plan		UK pension plan		US and German pension plans ¹	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Duration of the defined benefit obligation (in years)	13.4	15.5	13.7	18.8	7.9	9.5
Maturity analysis of benefits expected to be paid						
<i>USD m</i>						
Benefits expected to be paid within 12 months	702	719	107	110	123	123
Benefits expected to be paid between 1 and 3 years	1,445	1,440	234	248	232	237
Benefits expected to be paid between 3 and 6 years	2,183	2,097	384	418	335	338
Benefits expected to be paid between 6 and 11 years	3,751	3,467	667	743	502	495

Benefits expected to be paid between 11 and 16 years	3,519	3,156	667	751	388	392
Benefits expected to be paid in more than 16 years	13,243	10,733	2,570	3,028	516	519

1 The duration of the defined benefit obligation represents a weighted average across US and German plans.

Note 26 Post-employment benefit plans (continued)

Actuarial assumptions

The actuarial assumptions used for the defined benefit plans are based on the economic conditions prevailing in the jurisdiction in which they are offered. Changes in the defined benefit obligation are most sensitive to changes in the discount rate. The discount rate is based on the yield of high-quality corporate bonds quoted in an active market in the currency of the respective plan. A decrease in the discount curve increases the DBO. UBS AG regularly reviews the actuarial assumptions used in calculating the DBO to determine their continuing relevance.

- Refer to Note 1a item 5 for a description of the accounting policy for defined benefit plans

The tables below show the significant actuarial assumptions used in calculating the DBO at the end of the year.

Significant actuarial assumptions

In %	Swiss pension plan		UK pension plan		US pension plans		German pension plans	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Discount rate	2.34	0.34	5.02	1.82	4.92 ¹	2.47 ¹	3.81	0.99
Rate of pension increase	0.00	0.00	3.08	3.32	0.00	0.00	2.20	1.80
Rate of interest credit on retirement savings	3.39	1.04	0.00	0.00	5.73 ²	1.18 ²	0.00	0.00

1 Represents weighted average across US pension plans.

2 Only applicable to one of the US pension plans

Mortality tables and life expectancies for major plans

Country	Mortality table	Life expectancy at age 65 for a male member currently			
		aged 65		aged 45	
		31.12.22	31.12.21	31.12.22	31.12.21
Switzerland	BVG 2020 G with CMI 2021 projections ¹	21.7	21.7	23.4	23.3
UK	S3PA with CMI 2021 projections ²	23.5	23.4	24.6	24.5
USA	Pri-2012 with MP-2021 projection scale	22.0	21.9	23.3	23.3
Germany	Dr. K. Heubeck 2018 G	20.6	20.5	23.4	23.2

Country	Mortality table	Life expectancy at age 65 for a female member currently			
		aged 65		aged 45	
		31.12.22	31.12.21	31.12.22	31.12.21
Switzerland	BVG 2020 G with CMI 2021 projections ¹	23.5	23.4	25.1	25.0
UK	S3PA with CMI 2021 projections ²	25.0	24.9	26.4	26.3
USA	Pri-2012 with MP-2021 projection scale	23.4	23.3	24.8	24.7
Germany	Dr. K. Heubeck 2018 G	24.0	23.9	26.3	26.1

1 In 2021, BVG 2020 G with CMI 2019 projections was used.

2 In 2021, S3PA with CMI 2020 projections was used.

Sensitivity analysis of significant actuarial assumptions

The table below presents a sensitivity analysis for each significant actuarial assumption, showing how the DBO would have been affected by changes in the relevant actuarial assumption that were reasonably possible at the balance sheet date. Unforeseen circumstances may arise, which could result in variations that are outside the range of alternatives deemed reasonably possible. Caution should be used in extrapolating the sensitivities below on the DBO, as the sensitivities may not be linear.

Sensitivity analysis of significant actuarial assumptions¹

Increase / (decrease) in defined benefit obligation USD m	Swiss pension plan		UK pension plan		US and German pension plans	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Discount rate						
Increase by 50 basis points	(641)	(975)	(141)	(361)	(51)	(78)
Decrease by 50 basis points	723	1,116	157	411	55	84
Rate of pension increase						
Increase by 50 basis points	487	749	127	334	4	6

Decrease by 50 basis points	— ²	— ²	(118)	(306)	(3)	(6)
Rate of interest credit on retirement savings						
Increase by 50 basis points	106	134	— ³	— ³	9	8
Decrease by 50 basis points	(106)	(134)	— ³	— ³	(8)	(7)
Life expectancy						
Increase in longevity by one additional year	<u>304</u>	<u>475</u>	<u>65</u>	<u>184</u>	<u>39</u>	<u>56</u>

- 1 The sensitivity analyses are based on a change in one assumption while holding all other assumptions constant, so that interdependencies between the assumptions are excluded.
- 2 As the assumed rate of pension increase was 0% as of 31 December 2022 and as of 31 December 2021, a downward change in assumption is not applicable.
- 3 As the UK plan does not provide interest credits on retirement savings, a change in assumption is not applicable.

Note 26 Post-employment benefit plans (continued)

Fair value of plan assets

The tables below provide information about the composition and fair value of plan assets of the major pension plans.

Composition and fair value of plan assets

Swiss pension plan

<i>USD m</i>	31.12.22				31.12.21			
	Fair value			Plan asset allocation %	Fair value			Plan asset allocation %
	Quoted in an active market	Other	Total		Quoted in an active market	Other	Total	
Cash and cash equivalents	183	0	183	1	106	0	106	1
Real estate / property								
Domestic	0	2,130	2,130	13	0	1,994	1,994	10
Foreign	0	517	517	3	0	328	328	2
Investment funds								
Equity								
Domestic	418	0	418	2	476	0	476	2
Foreign	2,794	1,222	4,017	24	3,510	1,498	5,009	26
Bonds ¹								
Domestic, AAA to BBB–	2,117	0	2,117	12	2,512	0	2,512	13
Foreign, AAA to BBB–	3,395	0	3,395	20	2,877	0	2,877	15
Foreign, below BBB–	598	0	598	4	742	0	742	4
Other	867	1,997	2,864	17	2,379	2,010	4,389	23
Other investments	351	367	718	4	377	385	762	4
Total fair value of plan assets	10,724	6,233	16,957	100	12,980	6,216	19,196	100
Total fair value of plan assets			16,957				19,196	
<i>of which:²</i>								
Bank accounts at UBS AG			189				109	
UBS AG debt instruments			28				16	
UBS Group AG shares			15				14	
Securities lent to UBS AG ³			489				608	
Property occupied by UBS			51				52	
Derivative financial instruments, counterparty UBS AG ³			43				72	

- The bond credit ratings are primarily based on S&P's credit ratings. Ratings AAA to BBB– and below BBB– represent investment grade and non-investment grade ratings, respectively. In cases where credit ratings from other rating agencies were used, these were converted to the equivalent rating in S&P's rating classification.
- Bank accounts at UBS AG encompass accounts in the name of the Swiss pension fund. The other positions disclosed in the table encompass both direct investments in UBS AG instruments and UBS Group AG shares and indirect investments, i.e., those made through funds that the pension fund invests in.
- Securities lent to UBS AG and derivative financial instruments are presented gross of any collateral. Securities lent to UBS AG were fully covered by collateral as of 31 December 2022 and 31 December 2021. Net of collateral, derivative financial instruments amounted to negative USD 5m as of 31 December 2022 (31 December 2021: positive USD 24m).

Domestic	0	11	11	1	0	9	9	1
Other	54	0	54	5	99	0	99	7
Other investments	<u>5</u>	<u>1</u>	<u>6</u>	<u>1</u>	<u>5</u>	<u>1</u>	<u>6</u>	<u>0</u>
Total fair value of plan assets	<u><u>1,027</u></u>	<u><u>12</u></u>	<u><u>1,039</u></u>	<u><u>100</u></u>	<u><u>1,319</u></u>	<u><u>10</u></u>	<u><u>1,329</u></u>	<u><u>100</u></u>

1 The bond credit ratings are primarily based on S&P's credit ratings. Ratings AAA to BBB– and below BBB– represent investment grade and non-investment grade ratings, respectively. In cases where credit ratings from other rating agencies were used, these were converted to the equivalent rating in S&P's rating classification.

Note 26 Post-employment benefit plans (continued)

b) Defined contribution plans

UBS AG sponsors a number of defined contribution plans, with the most significant plans in the US and the UK. UBS AG's obligation is limited to its contributions made in accordance with each plan, which may include direct contributions and matching contributions. Employer contributions to defined contribution plans are recognized as an expense and were USD 299m in 2022, USD 303m in 2021 and USD 291m in 2020.

- **Refer to Note 6 for more information**

c) Related-party disclosure

UBS AG is the principal provider of banking services for the pension fund of UBS AG in Switzerland. In this capacity, UBS AG is engaged to execute most of the pension fund's banking activities. These activities can include, but are not limited to, trading, securities lending and borrowing and derivative transactions. The non-Swiss UBS AG pension funds do not have a similar banking relationship with UBS AG. During 2022, UBS AG received USD 20m in fees for banking services from the major post-employment benefit plans (2021: USD 22m). As of 31 December 2022, the major post-employment benefit plans held USD 253m in UBS Group AG shares (31 December 2021: USD 241m).

- **Refer to the "Composition and fair value of plan assets" table in Note 26a for more information about fair value of investments in UBS AG and UBS Group AG instruments held by the Swiss pension fund**

Note 27 Employee benefits: variable compensation

a) Plans offered

UBS has several share-based and other deferred compensation plans that align the interests of Group Executive Board (GEB) members and other employees with the interests of investors.

Share-based awards are granted in the form of notional shares and, where permitted, carry a dividend equivalent that may be paid in notional shares or cash. Awards are settled by delivering UBS shares at vesting, except in jurisdictions where this is not permitted for legal or tax reasons.

Deferred compensation awards are generally forfeitable upon, among other circumstances, voluntary termination of employment with UBS. These compensation plans are also designed to meet regulatory requirements and include special provisions for regulated employees. For the majority of variable compensation awards granted under such plans to employees of UBS AG, the grantor entity is UBS Group AG. Expenses associated with these awards are charged by UBS Group AG to UBS AG. For the purpose of this Note, references to shares refer to UBS Group AG shares.

The most significant deferred compensation plans are described below.

- **Refer to Note 1a item 4 for a description of the accounting policy related to share-based and other deferred compensation plans**

Mandatory deferred compensation plans

Long-Term Incentive Plan

The Long-Term Incentive Plan (LTIP) is a mandatory deferred share-based compensation plan for GEB members for the performance year 2022. For prior performance years, LTIP was granted to senior leaders of the Group (i.e., GEB members and selected senior management).

The number of notional shares delivered at vesting depends on two equally weighted performance metrics over a three-year performance period: return on common equity tier 1 (CET1) capital and relative total shareholder return, which compares the total shareholder return (TSR) of UBS with the TSR of an index consisting of listed Global Systemically Important Banks as determined by the Financial Stability Board (excluding UBS). The final number of shares vest over three years following the performance period for GEB members, and cliff-vest in the year following the performance period for selected senior management.

Equity Ownership Plan / Fund Ownership Plan

The Equity Ownership Plan (EOP) is the deferred share-based compensation plan for employees outside of the GEB that are subject to deferral requirements. EOP awards generally vest over three years.

Certain Asset Management employees receive some or all of their EOP in the form of notional funds (Fund Ownership Plan or FOP, previously named AM EOP). This plan is generally delivered in cash and vests over three years. The amount delivered depends on the value of the underlying investment funds at the time of vesting.

Note 27 Employee benefits: variable compensation (continued)

Deferred Contingent Capital Plan

The Deferred Contingent Capital Plan (DCCP) is a deferred compensation plan for all employees who are subject to deferral requirements. Such employees are awarded notional additional tier 1 (AT1) capital instruments, which, at the discretion of UBS, can be settled in cash or a perpetual, marketable AT1 capital instrument. DCCP awards generally bear notional interest paid annually (except for certain regulated employees) and vest in full after five years. Awards are forfeited if a viability event occurs (i.e., if FINMA notifies the firm that the DCCP awards must be written down to mitigate the risk of insolvency, bankruptcy or failure of UBS) or if the firm receives a commitment of extraordinary support from the public sector that is necessary to prevent such an event. DCCP awards are also written down if the Group's CET1 capital ratio falls below a defined threshold. In addition, GEB members forfeit 20% of DCCP awards for each loss-making year during the vesting period.

Financial advisor variable compensation

In line with market practice for US wealth management businesses, the compensation for US financial advisors in Global Wealth Management consists of cash compensation and deferred compensation awards, determined using a formulaic approach based on production.

Cash compensation reflects a percentage of the compensable production that each financial advisor generates. Compensable production is generally based on transaction revenue and investment advisory fees and may reflect further adjustments. The percentage rate generally varies based on the level of the production and firm tenure.

Financial advisors may also be granted annual deferred compensation. These amounts generally vest over a six-year period. The annual deferred compensation amount reflects the overall percentage rate and production.

Cash compensation and deferred compensation awards may be reduced for, among other things, errors, negligence or carelessness, or failure to comply with the firm's rules, standards, practices and / or policies, and / or applicable laws and regulations.

Financial advisors may also participate in additional programs to support promoting and developing their business or supporting the transition of client relationships where appropriate. Financial advisor compensation also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.

Note 27 Employee benefits: variable compensation (continued)

b) Effect on the income statement

Effect on the income statement for the financial year and future periods

The table below provides information about compensation expenses related to total variable compensation that were recognized in the financial year ended 31 December 2022, as well as expenses that were deferred and will be recognized in the income statement for 2023 and later. The majority of expenses deferred to 2023 and later that are related to the 2022 performance year pertain to awards granted in February 2023. The total unamortized compensation expense for unvested share-based awards granted up to 31 December 2022 will be recognized in future periods over a weighted average period of 2.5 years.

Variable compensation

USD m	Expenses recognized in 2022			Expenses deferred to 2023 and later ¹		
	Related to the 2022 performance year	Related to prior performance years	Total	Related to the 2022 performance year	Related to prior performance years	Total
Non-deferred cash	2,012	(9)	2,003	0	0	0
Deferred compensation awards	346	561	907	582	730	1,312
<i>of which: Equity Ownership Plan</i>	191	225	416	294	240	534
<i>of which: Deferred Contingent Capital Plan</i>	123	211	334	238	395	634
<i>of which: Long-Term Incentive Plan</i>	11	30	41	30	40	70
<i>of which: Fund Ownership Plan</i>	21	95	116	20	54	74
Variable compensation – performance awards	2,358	552	2,910	582	730	1,312
Variable compensation – financial advisors²	3,799	709	4,508	1,290	2,652	3,942
<i>of which: non-deferred cash</i>	3,481	0	3,481	0	0	0
<i>of which: deferred share-based awards</i>	104	62	166	122	180	302
<i>of which: deferred cash-based awards</i>	185	215	400	588	636	1,224
<i>of which: compensation commitments with recruited financial advisors</i>	29	432	461	580	1,836	2,416
Variable compensation – other³	146	72	217	230	189	419
Total variable compensation	6,304	1,332	7,636⁴	2,101	3,571	5,672

- 1 Estimate as of 31 December 2022. Actual amounts to be expensed in future periods may vary; e.g., due to forfeiture of awards.
- 2 Financial advisor compensation consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.
- 3 Consists of replacement payments, forfeiture credits, severance payments, retention plan payments and interest expense related to the Deferred Contingent Capital Plan.
- 4 Includes USD 680m in expenses related to share-based compensation (performance awards: USD 457m; other variable compensation: USD 56m; financial advisor compensation: USD 166m). A further USD 80m in expenses related to share-based compensation was recognized within other expense categories included in Note 6 (salaries: USD 4m, related to role-based allowances; social security: USD 57m; other personnel expenses: USD 19m related to the Equity Plus Plan).

Note 27 Employee benefits: variable compensation (continued)

Variable compensation (continued)

USD m	Expenses recognized in 2021			Expenses deferred to 2022 and later ¹		
	Related to the 2021 performance year	Related to prior performance years	Total	Related to the 2021 performance year	Related to prior performance years	Total
Non-deferred cash	2,136	(8)	2,128	0	0	0
Deferred compensation awards	389	399	788	767	606	1,373
<i>of which: Equity Ownership Plan</i>	175	174	350	374	180	553
<i>of which: Deferred Contingent Capital Plan</i>	134	151	285	290	318	608
<i>of which: Long-Term Incentive Plan</i>	51	17	69	48	32	79
<i>of which: Fund Ownership Plan</i>	29	55	84	56	77	133
Variable compensation – performance awards	2,525	391	2,916	767	606	1,373
Variable compensation – financial advisors²	4,175	685	4,860	1,097	2,323	3,419
<i>of which: non-deferred cash</i>	3,858	(6)	3,853	0	0	0
<i>of which: deferred share-based awards</i>	106	51	157	123	146	269
<i>of which: deferred cash-based awards</i>	170	202	372	311	495	806
<i>of which: compensation commitments with recruited financial advisors</i>	41	438	479	662	1,682	2,344
Variable compensation – other³	163	33	196	210	178	388
Total variable compensation	6,863	1,109	7,973⁴	2,074	3,107	5,181

- 1 Estimate as of 31 December 2021. Actual amounts expensed may vary; e.g., due to forfeiture of awards.
- 2 Financial advisor compensation consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.
- 3 Consists of replacement payments, forfeiture credits, severance payments, retention plan payments and interest expense related to the Deferred Contingent Capital Plan.
- 4 Includes USD 631m in expenses related to share-based compensation (performance awards: USD 419m; other variable compensation: USD 56m; financial advisor compensation: USD 157m). A further USD 77m in expenses related to share-based compensation was recognized within other expense categories included in Note 6 (salaries: USD 5m related to role-based allowances; social security: USD 59m; other personnel expenses: USD 13m related to the Equity Plus Plan).

Variable compensation (continued)

USD m	Expenses recognized in 2020			Expenses deferred to 2021 and later ¹		
	Related to the 2020 performance year	Related to prior performance years	Total	Related to the 2020 performance year	Related to prior performance years	Total
Non-deferred cash	1,948	(29)	1,920	0	0	0
Deferred compensation awards	329	704	1,034	734	277	1,011
<i>of which: Equity Ownership Plan</i>	131	315	446	298	67	365
<i>of which: Deferred Contingent Capital Plan</i>	108	339	448	271	189	459
<i>of which: Long-Term Incentive Plan</i>	41	11	52	46	9	55
<i>of which: Fund Ownership Plan</i>	49	39	88	120	12	132
Variable compensation – performance awards	2,278	675	2,953	734	277	1,011
Variable compensation – financial advisors²	3,378	713	4,091	822	2,284	3,106
<i>of which: non-deferred cash</i>	3,154	0	3,154	0	0	0
<i>of which: deferred share-based awards</i>	69	50	119	79	135	214
<i>of which: deferred cash-based awards</i>	133	183	316	271	467	738
<i>of which: compensation commitments with recruited financial advisors</i>	22	480	502	473	1,682	2,155
Variable compensation – other³	109	92	201	176	189	364
Total variable compensation	5,765	1,481	7,246⁴	1,732	2,749	4,481

- 1 Estimate as of 31 December 2020. Actual amounts expensed may vary; e.g., due to forfeiture of awards.

- 2 Financial advisor compensation consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.
- 3 Consists of replacement payments, forfeiture credits, severance payments, retention plan payments and interest expense related to the Deferred Contingent Capital Plan.
- 4 Includes USD 666m in expenses related to share-based compensation (performance awards: USD 498m; other variable compensation: USD 49m; financial advisor compensation: USD 119m). A further USD 88m in expenses related to share-based compensation was recognized within other expense categories included in Note 6 (salaries: USD 4m related to role-based allowances; social security: USD 51m; other personnel expenses: USD 34m related to the Equity Plus Plan).

Note 27 Employee benefits: variable compensation (continued)

c) Outstanding share-based compensation awards

Share and performance share awards

Movements in outstanding share-based awards granted by UBS AG and its subsidiaries to employees during 2022 and 2021 are provided in the table below.

Movements in outstanding share-based compensation awards

	Number of shares 2022	Weighted average grant date fair value (USD)	Number of shares 2021	Weighted average grant date fair value (USD)
Outstanding, at the beginning of the year	295,921	15	54,557	13
Awarded during the year	358,424	19	278,756	15
Distributed during the year	(37,994)	14	(24,176)	13
Forfeited during the year	(1,923)	15	(13,215)	15
Outstanding, at the end of the year	614,428	17	295,921	15
<i>of which: shares vested for accounting purposes</i>	174,329		116,775	

The total carrying amount of the liability related to cash-settled share-based awards as of 31 December 2022 and 31 December 2021 was USD 7m and USD 3m, respectively.

d) Valuation

UBS share awards

UBS measures compensation expense based on the average market price of UBS shares on the grant date as quoted on the SIX Swiss Exchange, taking into consideration post-vesting sale and hedge restrictions, non-vesting conditions and market conditions, where applicable. The fair value of the share awards subject to post-vesting sale and hedge restrictions is discounted on the basis of the duration of the post-vesting restriction and is referenced to the cost of purchasing an at-the-money European put option for the term of the transfer restriction. The grant date fair value of notional shares without dividend entitlements also includes a deduction for the present value of future expected dividends to be paid between the grant date and distribution.

Note 28 Interests in subsidiaries and other entities

a) Interests in subsidiaries

UBS AG defines its significant subsidiaries as those entities that, either individually or in aggregate, contribute significantly to UBS AG's financial position or results of operations, based on a number of criteria, including the subsidiaries' equity and contribution to UBS AG's total assets and profit or loss before tax, in accordance with the requirements set by IFRS 12, Swiss regulations and the rules of the US Securities and Exchange Commission (the SEC).

Individually significant subsidiaries

The table below lists UBS AG's individually significant subsidiaries as of 31 December 2022. Unless otherwise stated, the subsidiaries listed below have share capital consisting solely of ordinary shares held entirely by UBS AG and the proportion of ownership interest held is equal to the voting rights held by UBS AG.

The country where the respective registered office is located is also the principal place of business. UBS AG operates through a global branch network and a significant proportion of its business activity is conducted outside Switzerland, including in the UK, the US, Singapore, the Hong Kong SAR and other countries. UBS Europe SE has branches and offices in a number of EU Member States, including Germany, Italy, Luxembourg and Spain. Share capital is provided in the currency of the legally registered office.

Note 28 Interests in subsidiaries and other entities (continued)**Individually significant subsidiaries of UBS AG as of 31 December 2022¹**

Company	Registered office	Primary business	Share capital in million	Equity interest accumulated in %
UBS Americas Holding LLC	Wilmington, Delaware, USA	Group Functions	USD 5,150.0 ²	100.0
UBS Americas Inc.	Wilmington, Delaware, USA	Group Functions	USD 0.0	100.0
UBS Asset Management AG	Zurich, Switzerland	Asset Management	CHF 43.2	100.0
UBS Bank USA	Salt Lake City, Utah, USA	Global Wealth Management	USD 0.0	100.0
UBS Europe SE	Frankfurt, Germany	Global Wealth Management	EUR 446.0	100.0
UBS Financial Services Inc.	Wilmington, Delaware, USA	Global Wealth Management	USD 0.0	100.0
UBS Securities LLC	Wilmington, Delaware, USA	Investment Bank	USD 1,283.1 ³	100.0
UBS Switzerland AG	Zurich, Switzerland	Personal & Corporate Banking	CHF 10.0	100.0

1 Includes direct and indirect subsidiaries of UBS AG.

2 Consists of common share capital of USD 1,000 and non-voting preferred share capital of USD 5,150,000,000.

3 Consists of common share capital of USD 100,000 and non-voting preferred share capital of USD 1,283,000,000.

Other subsidiaries

The table below lists other direct and indirect subsidiaries of UBS AG that are not individually significant but contribute to UBS AG's total assets and aggregated profit before tax thresholds and are thus disclosed in accordance with requirements set by the SEC.

Other subsidiaries of UBS AG as of 31 December 2022

Company	Registered office	Primary business	Share capital in million	Equity interest accumulated in %
UBS Asset Management (Americas) Inc.	Wilmington, Delaware, USA	Asset Management	USD 0.0	100.0
UBS Asset Management (Hong Kong) Limited	Hong Kong SAR, China	Asset Management	HKD 153.8	100.0
UBS Asset Management Life Ltd	London, United Kingdom	Asset Management	GBP 15.0	100.0
UBS Asset Management Switzerland AG	Zurich, Switzerland	Asset Management	CHF 0.5	100.0
UBS Business Solutions US LLC	Wilmington, Delaware, USA	Group Functions	USD 0.0	100.0
UBS Credit Corp.	Wilmington, Delaware, USA	Global Wealth Management	USD 0.0	100.0
UBS (France) S.A.	Paris, France	Global Wealth Management	EUR 197.0	100.0
UBS Fund Management (Luxembourg) S.A.	Luxembourg, Luxembourg	Asset Management	EUR 13.0	100.0
UBS Fund Management (Switzerland) AG	Basel, Switzerland	Asset Management	CHF 1.0	100.0
UBS (Monaco) S.A.	Monte Carlo, Monaco	Global Wealth Management	EUR 49.2	100.0
UBS O'Connor LLC	Wilmington, Delaware, USA	Asset Management	USD 1.0	100.0
UBS Realty Investors LLC	Boston, Massachusetts, USA	Asset Management	USD 9.0	100.0
UBS Securities Australia Ltd	Sydney, Australia	Investment Bank	AUD 0.3 ¹	100.0
UBS Securities Hong Kong Limited	Hong Kong SAR, China	Investment Bank	HKD 3,354.2	100.0
UBS Securities Japan Co., Ltd.	Tokyo, Japan	Investment Bank	JPY 34,708.7	100.0
UBS SuMi TRUST Wealth Management Co., Ltd.	Tokyo, Japan	Global Wealth Management	JPY 5,165.0	51.0

1 Includes a nominal amount relating to redeemable preference shares.

Consolidated structured entities

Consolidated structured entities (SEs) include certain investment funds, securitization vehicles and client investment vehicles. UBS AG has no individually significant subsidiaries that are SEs.

In 2022 and 2021, UBS AG did not enter into any contractual obligation that could require UBS AG to provide financial support to consolidated SEs. In addition, UBS AG did not provide support, financial or otherwise, to a consolidated SE when UBS AG was not contractually obligated to do so, nor does UBS AG have any intention to do so in the future. Furthermore, UBS AG did not provide support, financial or otherwise, to a previously unconsolidated SE that resulted in UBS AG controlling the SE during the reporting period.

Note 28 Interests in subsidiaries and other entities (continued)

b) Interests in associates and joint ventures

As of 31 December 2022 and 2021, no associate or joint venture was individually material to UBS AG. Also, there were no significant restrictions on the ability of associates or joint ventures to transfer funds to UBS AG or its subsidiaries as cash dividends or to repay loans or advances made. There were no quoted market prices for any associates or joint ventures of UBS AG.

In 2022, UBS AG reclassified its minority investment (49%) in its Japanese real estate joint venture, Mitsubishi Corp.-UBS Realty Inc., of USD 44m to *Properties and other non-current assets held for sale* and sold the shareholding. The sale resulted in a pre-tax gain of USD 848m in 2022, which was recognized in *Other income*. UBS AG's asset management, wealth management and investment banking businesses operating in Japan were not affected by the sale.

Investments in associates and joint ventures

<i>USD m</i>	2022	2021
Carrying amount at the beginning of the year	1,243	1,557
Additions	3	1
Reclassifications ¹	(44)	(386)
Share of comprehensive income	(41)	150
<i>of which: share of net profit²</i>	32	105
<i>of which: share of other comprehensive income³</i>	(73)	45
Share of changes in retained earnings	0	1
Dividends received	(31)	(39)
Foreign currency translation	(30)	(39)
Carrying amount at the end of the year	1,101	1,243
<i>of which: associates</i>	1,098	1,200
<i>of which: SIX Group AG, Zurich⁴</i>	954	1,043
<i>of which: other associates</i>	144	157
<i>of which: joint ventures</i>	3	43
<i>of which: Mitsubishi Corp.-UBS Realty Inc., Tokyo¹</i>		40
<i>of which: other joint ventures</i>	3	3

- 1 In 2022, UBS AG reclassified its minority investment (49%) in Mitsubishi Corp.-UBS Realty Inc. of USD 44m to Properties and other non-current assets held for sale and sold the investment in the same year. In 2021, UBS AG reclassified its minority investment (48.8%) in Clearstream Fund Centre AG of USD 386m to Properties and other non-current assets held for sale and sold the investment in the same year.
- 2 For 2022, consists of USD 27m from associates and USD 5m from joint ventures (for 2021, consists of USD 79m from associates and USD 26m from joint ventures).
- 3 For 2022, consists of negative USD 73m from associates (for 2021, consists of USD 44m from associates and USD 1m from joint ventures).
- 4 In 2022, UBS AG's equity interest amounted to 17.31%. UBS AG is represented on the Board of Directors.

c) Unconsolidated structured entities

UBS AG is considered to sponsor another entity if, in addition to ongoing involvement with that entity, it had a key role in establishing that entity or in bringing together relevant counterparties for a transaction facilitated by that entity. During 2022, UBS AG sponsored the creation of various SEs and interacted with a number of non-sponsored SEs, including securitization vehicles, client vehicles and certain investment funds, that UBS AG did not consolidate as of 31 December 2022 because it did not control them.

Interests in unconsolidated structured entities

The table below presents UBS AG's interests in and maximum exposure to loss from unconsolidated SEs, as well as the total assets held by the SEs in which UBS had an interest as of year-end, except for investment funds sponsored by third parties, for which the carrying amount of UBS's interest as of year-end has been disclosed.

Sponsored unconsolidated structured entities in which UBS did not have an interest at year-end

During 2022 and 2021, UBS AG did not earn material income from sponsored unconsolidated SEs in which UBS did not have an interest at year-end.

During 2022 and 2021, UBS AG and third parties did not transfer any assets into sponsored securitization vehicles created in the year. UBS AG and third parties transferred assets, alongside deposits and debt issuances (which are assets from the perspective of the vehicle), of USD 1bn and USD 3bn, respectively, into sponsored client vehicles created in 2022 (2021: USD 1bn and USD 2bn, respectively). For sponsored investment funds, transfers arose during the period as investors invested and redeemed positions, thereby changing the overall size of the funds, which, when combined with market movements, resulted in a total closing net asset value of USD 38bn (31 December 2021: USD 46bn).

Note 28 Interests in subsidiaries and other entities (continued)

Interests in unconsolidated structured entities

<i>USD m, except where indicated</i>	31.12.22				Maximum exposure to loss ¹
	Securitization vehicles	Client vehicles	Investment funds	Total	
Financial assets at fair value held for trading	278	81	5,884	6,243	6,243
Derivative financial instruments	3	160	115	278	278
Loans and advances to customers			119	119	119
Financial assets at fair value not held for trading			108	108	108
Financial assets measured at fair value through other comprehensive income ²					
Other financial assets measured at amortized cost ²	837	4,977 ³	2	5,817	6,066
Total assets	1,118⁴	5,219	6,228	12,565	
Derivative financial instruments	1	35	763	798	2
Total liabilities	1	35	763	798	
Assets held by the unconsolidated structured entities in which UBS AG had an interest (USD bn)	50⁵	107⁶	95⁷		

<i>USD m, except where indicated</i>	31.12.21				Maximum exposure to loss ¹
	Securitization vehicles	Client vehicles	Investment funds	Total	
Financial assets at fair value held for trading	246	162	6,743	7,151	7,151
Derivative financial instruments	5	45	155	205	205
Loans and advances to customers			125	125	125
Financial assets at fair value not held for trading	35		100	135	135
Financial assets measured at fair value through other comprehensive income	324	4,525		4,849	4,849
Other financial assets measured at amortized cost		0 ³	0	1	250
Total assets	610⁴	4,732	7,124	12,466	
Derivative financial instruments	2	11	281	294	
Total liabilities	2	11	281	294	
Assets held by the unconsolidated structured entities in which UBS AG had an interest (USD bn)	30⁵	81⁶	103⁷		

- 1 For the purpose of this disclosure, maximum exposure to loss amounts do not consider the risk-reducing effects of collateral or other credit enhancements.
- 2 Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. Refer to Note 1b for more information.
- 3 Includes the carrying amount of loan commitments. The maximum exposure to loss for these instruments is equal to the notional amount.
- 4 As of 31 December 2022, USD 0.1bn of the USD 1.1bn (31 December 2021: USD 0.1bn of the USD 0.6bn) was held in Group Functions – Non-core and Legacy Portfolio.
- 5 Represents the principal amount outstanding.
- 6 Represents the market value of total assets.
- 7 Represents the net asset value of the investment funds sponsored by UBS AG and the carrying amount of UBS AG's interests in the investment funds not sponsored by UBS AG.

UBS AG retains or purchases interests in unconsolidated SEs in the form of direct investments, financing, guarantees, letters of credit and derivatives, as well as through management contracts. UBS AG's maximum exposure to loss is generally equal to the carrying amount of UBS AG's interest in the given SE, with this subject to change over time with market movements. Guarantees, letters of credit and credit derivatives are an exception, with the given contract's notional amount, adjusted for losses already incurred, representing the maximum loss that UBS AG is exposed to. The maximum exposure to loss disclosed in the table above does not reflect UBS AG's risk management activities, including effects from financial instruments that may be used to economically hedge risks inherent in the given unconsolidated SE or risk-reducing effects of collateral or other credit enhancements.

In 2022 and 2021, UBS AG did not provide support, financial or otherwise, to any unconsolidated SE when not contractually obligated to do so, nor does UBS AG have any intention to do so in the future.

In 2022 and 2021, income and expenses from interests in unconsolidated SEs primarily resulted from mark-to-market movements recognized in Other net income from financial instruments measured at fair value through profit or loss, which were generally hedged with other financial instruments, as well as fee and commission income received from UBS-sponsored funds.

Interests in securitization vehicles

As of 31 December 2022 and 31 December 2021, UBS AG held interests, both retained and acquired, in various securitization vehicles that relate to financing, underwriting, secondary market and derivative trading activities.

The numbers outlined in the table above may differ from the securitization positions presented in the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for the following reasons: (i) exclusion of synthetic securitizations transacted with entities that are not SEs and transactions in which UBS AG did not have an interest because it did not absorb any risk; (ii) a different measurement basis in certain cases (e.g., IFRS carrying amount within the previous table compared with net exposure amount at default for Pillar 3 disclosures); and (iii) different classification of vehicles viewed as sponsored by UBS AG versus sponsored by third parties.

- **Refer to the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more information**

Note 28 Interests in subsidiaries and other entities (continued)

Interests in client vehicles

Client vehicles are established predominantly for clients to gain exposure to specific assets or risk exposures. Such vehicles may enter into derivative agreements, with UBS or a third party, to align the cash flows of the entity with the investor's intended investment objective, or to introduce other desired risk exposures.

As of 31 December 2022 and 31 December 2021, UBS AG retained interests in client vehicles sponsored by UBS and third parties that relate to financing, secondary market and derivative trading activities, and to hedge structured product offerings.

Interests in investment funds

Investment funds have a collective investment objective, and are either passively managed, so that any decision-making does not have a substantive effect on variability, or are actively managed and investors or their governing bodies do not have substantive voting or similar rights.

UBS AG holds interests in a number of investment funds, primarily resulting from seed investments or in order to hedge structured product offerings. In addition to the interests disclosed in the table above, UBS AG manages the assets of various pooled investment funds and receives fees based, in whole or in part, on the net asset value of the fund and / or the performance of the fund. The specific fee structure is determined based on various market factors and considers the fund's nature and the jurisdiction of incorporation, as well as fee schedules negotiated with clients. These fee contracts represent an interest in the fund, as they align UBS AG's exposure with investors, providing a variable return based on the performance of the entity. Depending on the structure of the fund, these fees may be collected directly from the fund's assets and / or from the investors. Any amounts due are collected on a regular basis and are generally backed by the fund's assets. Therefore, interest in such funds is not represented by the on-balance sheet fee receivable but rather by the future exposure to variable fees. The total assets of such funds were USD 336bn and USD 425bn as of 31 December 2022 and 31 December 2021, respectively, and have been excluded from the table above. UBS AG did not have any material exposure to loss from these interests as of 31 December 2022 or as of 31 December 2021.

Note 29 Changes in organization and acquisitions and disposals of subsidiaries and businesses

Disposals of subsidiaries and businesses

Sale of UBS Swiss Financial Advisers AG

In the third quarter of 2022, UBS AG completed the sale of its wholly owned subsidiary UBS Swiss Financial Advisers AG (SFA) to Vontobel. UBS AG continues to refer US clients that want to have discretionary portfolio management or investment advisory services booked in Switzerland to Vontobel SFA. Upon completion of the sale, UBS AG recorded a pre-tax gain of USD 86m in 2022, which was recognized in *Other income*.

Prior to completion of the sale, the assets and liabilities that were subject to the transaction were presented as a disposal group held for sale within *Other non-financial assets* and *Other non-financial liabilities* (31 December 2021: USD 446m and USD 475m, respectively).

Sale of wealth management business in Spain

UBS AG completed the sale of its domestic wealth management business in Spain to Singular Bank in the third quarter of 2022. The sale included the transition of employees, client relationships, products and services of the wealth management business of UBS AG in Spain and resulted in a pre-tax gain of USD 133m in 2022, which was recognized in *Other income*.

Prior to completion of the sale, the assets and liabilities that were subject to the transaction were presented as a disposal group held for sale within *Other non-financial assets* and *Other non-financial liabilities* (31 December 2021: USD 647m and USD 823m, respectively).

Sale of US alternative investments administration business

In the fourth quarter of 2022, UBS AG sold its US alternative investments administration business and recorded a pre-tax gain of USD 41m gain in *Other income*.

Sale of investments in associates and joint ventures

UBS AG sold its minority investment (49%) in its Japanese real estate joint venture, Mitsubishi Corp.-UBS Realty Inc., in 2022.

- **Refer to Note 28b for more information**

Acquisitions of subsidiaries and businesses

Wealthfront

In August 2022, UBS AG and Wealthfront mutually agreed to terminate their merger agreement, under which Wealthfront was to be acquired by UBS

Americas Inc. In the third quarter of 2022, UBS AG purchased a USD 69.7m note convertible into Wealthfront shares.

Note 30 Related parties

UBS AG defines related parties as associates (entities that are significantly influenced by UBS), joint ventures (entities in which UBS shares control with another party), post-employment benefit plans for UBS AG employees, key management personnel, close family members of key management personnel and entities that are, directly or indirectly, controlled or jointly controlled by key management personnel or their close family members. Key management personnel is defined as members of the Board of Directors (the BoD) and Executive Board (the EB).

a) Remuneration of key management personnel

The Vice Chairman of the BoD has a specific management employment contract and receives pension benefits upon retirement. Total remuneration of the Chairman and the Vice Chairman of the BoD and all EB members is included in the table below.

Remuneration of key management personnel			
<i>USD m, except where indicated</i>	31.12.22	31.12.21	31.12.20
Base salaries and other cash payments ¹	26	30	31
Incentive awards – cash ²	16	17	17
Annual incentive award under DCCP	23	26	26
Employer's contributions to retirement benefit plans	2	2	2
Benefits in kind, fringe benefits (at market value)	1	1	1
Share-based compensation ³	42	45	45
Total	110	122	122
Total (CHF m)⁴	106	112	115

1 May include role-based allowances in line with market practice and regulatory requirements.

2 The cash portion may also include blocked shares in line with regulatory requirements.

3 Compensation expense is based on the share price on grant date taking into account performance conditions. Refer to Note 27 for more information. For EB members, share-based compensation for 2022, 2021 and 2020 was entirely composed of LTIP awards. For the Chairman of the BoD, the share-based compensation for 2022, 2021 and 2020 was entirely composed of UBS shares.

4 Swiss franc amounts disclosed represent the respective US dollar amounts translated at the applicable performance award currency exchange rates (2022: USD / CHF 0.96; 2021: USD / CHF 0.92; 2020: USD / CHF 0.94).

The independent members of the BoD, including the Chairman, do not have employment or service contracts with UBS AG, and thus are not entitled to benefits upon termination of their service on the BoD. Payments to these individuals for their services as independent members of the BoD amounted to USD 11.1m (CHF 10.7m) in 2022, USD 7.5m (CHF 6.9m) in 2021 and USD 7.0m (CHF 6.6m) in 2020.

b) Equity holdings of key management personnel

Equity holdings of key management personnel¹		
	31.12.22	31.12.21
Number of UBS Group AG shares held by members of the BoD, EB and parties closely linked to them ²	2,443,580	4,175,515

1 No options were held in 2022 and 2021 by non-independent members of the BoD and any EB member or any of its related parties.

2 Excludes shares granted under variable compensation plans with forfeiture provisions.

Of the share totals above, no shares were held by close family members of key management personnel on 31 December 2022 and 31 December 2021. No shares were held by entities that are directly or indirectly controlled or jointly controlled by key management personnel or their close family members on 31 December 2022 and 31 December 2021. As of 31 December 2022, no member of the BoD or EB was the beneficial owner of more than 1% of the shares in UBS Group AG.

c) Loans, advances and mortgages to key management personnel

The non-independent members of the BoD and EB members are granted loans, fixed advances and mortgages in the ordinary course of business on substantially the same terms and conditions that are available to other employees, including interest rates and collateral, and neither involve more than the normal risk of collectability nor contain any other unfavorable features for the firm. Independent BoD members are granted loans and mortgages in the ordinary course of business at general market conditions.

Movements in the loan, advances and mortgage balances are as follows.

Note 30 Related parties (continued)**Loans, advances and mortgages to key management personnel¹**

<i>USD m, except where indicated</i>	2022	2021
Balance at the beginning of the year	28	31
Additions	8	11
Reductions	(7)	(15)
Balance at the end of the year ²	28	28
Balance at the end of the year (CHF m) ^{2, 3}	26	25

1 All loans are secured loans.

2 There were no unused uncommitted credit facilities as of 31 December 2022 and 31 December 2021.

3 Swiss franc amounts disclosed represent the respective US dollar amounts translated at the relevant year-end closing exchange rate.

d) Other related-party transactions with entities controlled by key management personnel

In 2022 and 2021, UBS AG did not enter into transactions with entities that are directly or indirectly controlled or jointly controlled by UBS AG's key management personnel or their close family members and as of 31 December 2022, 31 December 2021 and 31 December 2020, there were no outstanding balances related to such transactions. Furthermore, in 2022 and 2021, entities controlled by key management personnel did not sell any goods or provide any services to UBS AG, and therefore did not receive any fees from UBS AG. UBS AG also did not provide services to such entities in 2022 and 2021, and therefore also received no fees.

e) Transactions with associates and joint ventures**Loans to and outstanding receivables from associates and joint ventures**

<i>USD m</i>	2022	2021
Carrying amount at the beginning of the year	251	630
Additions	402	133
Reductions	(438)	(497)
Foreign currency translation	1	(14)
Carrying amount at the end of the year	217	251
<i>of which: unsecured loans and receivables</i>	209	243

Other transactions with associates and joint ventures

<i>USD m</i>	As of or for the year ended	
	31.12.22	31.12.21
Payments to associates and joint ventures for goods and services received	138	157
Fees received for services provided to associates and joint ventures	4	104
Liabilities to associates and joint ventures	90	127
Commitments and contingent liabilities to associates and joint ventures	7	7

- Refer to Note 28 for an overview of investments in associates and joint ventures

f) Receivables and payables from / to UBS Group AG and other subsidiaries of UBS Group AG

<i>USD m</i>	31.12.22	31.12.21
Receivables		
Loans and advances to customers	2,807	1,049
Financial assets at fair value held for trading	146	187
Other financial assets measured at amortized cost	147	45
Payables		
Customer deposits	2,119	2,828
Funding from UBS Group AG	56,147	57,295
Other financial liabilities measured at amortized cost	1,985	1,887
Other financial liabilities designated at fair value ¹	1,796	2,340

1 Represents funding recognized from UBS Group AG that is designated at fair value. Refer to Note 18b for more information.

Note 31 Invested assets and net new money

The following disclosures provide a breakdown of UBS AG's invested assets and a presentation of their development, including net new money, as required by the Swiss Financial Market Supervisory Authority (FINMA).

Invested assets

Invested assets consist of all client assets managed by or deposited with UBS AG for investment purposes. Invested assets include managed fund assets, managed institutional assets, discretionary and advisory wealth management portfolios, fiduciary deposits, time deposits, savings accounts, and wealth management securities or brokerage accounts. All assets held for purely transactional purposes and custody-only assets, including corporate client assets held for cash management and transactional purposes, are excluded from invested assets, as UBS AG only administers the assets and does not offer advice on how they should be invested. Also excluded are non-bankable assets (e.g., art collections) and deposits from third-party banks for funding or trading purposes.

Discretionary assets are defined as client assets that UBS AG decides how to invest. Other invested assets are those where the client ultimately decides how the assets are invested. When a single product is created in one business division and sold in another, it is counted in both the business division managing the investment and the one distributing it. This results in double counting within UBS AG's total invested assets and net new money, as both business divisions are independently providing a service to their respective clients, and both add value and generate revenue.

Net new money

Net new money in a reporting period is the amount of invested assets entrusted to UBS AG by new and existing clients, less those withdrawn by existing clients and clients who terminated relationships with UBS AG.

Net new money is calculated using the direct method, under which inflows and outflows to / from invested assets are determined at the client level, based on transactions. Interest and dividend income from invested assets are not counted as net new money inflows. Market and currency movements, as well as fees, commissions and interest on loans charged, are excluded from net new money, as are effects resulting from any acquisition or divestment of a UBS subsidiary or business. Reclassifications between invested assets and custody-only assets as a result of a change in service level delivered are generally treated as net new money flows. However, where the change in service level directly results from an externally imposed regulation or a strategic decision by UBS AG to exit a market or specific service offering, the one-time net effect is reported as *Other effects*.

The Investment Bank does not track invested assets and net new money. However, when a client is transferred from the Investment Bank to another business division, this may produce net new money even though the client's assets were already with UBS AG.

Invested assets and net new money

USD bn	As of or for the year ended	
	31.12.22	31.12.21
Fund assets managed by UBS	390	419
Discretionary assets	1,440	1,705
Other invested assets	2,127	2,472
Total invested assets¹	3,957	4,596
<i>of which: double counts</i>	<i>340</i>	<i>356</i>
Net new money¹	68	159

1 Includes double counts.

Development of invested assets

USD bn	2022	2021
Total invested assets at the beginning of the year ¹	4,596	4,187
Net new money	68	159
Market movements ²	(595)	339
Foreign currency translation	(72)	(65)
Other effects	(40)	(24)
<i>of which: acquisitions / (divestments)</i>	<i>(19)</i>	<i>(5)</i>
Total invested assets at the end of the year¹	3,957	4,596

1 Includes double counts.

2 Includes interest and dividend income.

Note 32 Currency translation rates

The following table shows the rates of the main currencies used to translate the financial information of UBS AG's operations with a functional currency other than the US dollar into US dollars.

	Closing exchange rate		Average rate ¹		
	As of		For the year ended		
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.20
1 CHF	1.08	1.10	1.05	1.09	1.07
1 EUR	1.07	1.14	1.05	1.18	1.15
1 GBP	1.21	1.35	1.23	1.37	1.29
100 JPY	0.76	0.87	0.76	0.91	0.94

1 Monthly income statement items of operations with a functional currency other than the US dollar are translated into US dollars using month-end rates. Disclosed average rates for a year represent an average of twelve month-end rates, weighted according to the income and expense volumes of all operations of UBS AG with the same functional currency for each month. Weighted average rates for individual business divisions may deviate from the weighted average rates for UBS AG.

Note 33 Main differences between IFRS and Swiss GAAP

The consolidated financial statements of UBS AG are prepared in accordance with International Financial Reporting Standards (IFRS). The Swiss Financial Market Supervisory Authority (FINMA) requires financial groups presenting financial statements under IFRS to provide a narrative explanation of the main differences between IFRS and Swiss generally accepted accounting principles (GAAP) (the FINMA Accounting Ordinance, FINMA Circular 2020/1 "Accounting – banks" and the Banking Ordinance (the BO)). Included in this Note are the significant differences in the recognition and measurement between IFRS and the provisions of the BO and the guidelines of FINMA governing true and fair view financial statement reporting pursuant to Art. 25 to Art. 42 of the BO.

1. Consolidation

Under IFRS, all entities that are controlled by the holding entity are consolidated. Under Swiss GAAP controlled entities deemed immaterial to a group or those held only temporarily are exempt from consolidation, but instead are recorded as participations accounted for under the equity method of accounting or as financial investments measured at the lower of cost or market value.

2. Classification and measurement of financial assets

Under IFRS, debt instruments are measured at amortized cost, fair value through other comprehensive income (FVOCI) or fair value through profit or loss (FVTPL), depending on the nature of the business model within which the particular asset is held and the characteristics of the contractual cash flows of the asset. Equity instruments are accounted for at FVTPL by UBS. Under Swiss GAAP, trading assets and derivatives are measured at FVTPL, in line with IFRS. However, non-trading debt instruments are generally measured at amortized cost, even when the assets are managed on a fair value basis. In addition, the measurement of financial assets in the form of securities depends on the nature of the asset: debt instruments not held to maturity, i.e., instruments available for sale, and equity instruments with no permanent holding intent, are classified as *Financial investments* and measured at the lower of (amortized) cost or market value. Market value adjustments up to the original cost amount and realized gains or losses upon disposal of the investment are recorded in the income statement as *Other income from ordinary activities*. Equity instruments with a permanent holding intent are classified as participations in *Non-consolidated investments in subsidiaries and other participations* and are measured at cost less impairment. Impairment losses are recorded in the income statement as *Impairment of investments in non-consolidated subsidiaries and other participations*. Reversals of impairments up to the original cost amount and realized gains or losses upon disposal of the investment are recorded as *Extraordinary income / Extraordinary expenses*.

3. Fair value option applied to financial liabilities

Under IFRS, UBS applies the fair value option to certain financial liabilities not held for trading. Instruments for which the fair value option is applied are accounted for at FVTPL. The amount of change in the fair value attributable to changes in UBS's own credit is presented in *Other comprehensive income* directly within *Retained earnings*. The fair value option is applied primarily to issued structured debt instruments, certain non-structured debt instruments, certain payables under repurchase agreements and cash collateral on securities lending agreements, amounts due under unit-linked investment contracts, and brokerage payables.

Under Swiss GAAP, the fair value option can only be applied to structured debt instruments consisting of a debt host contract and one or more embedded derivatives that do not relate to own equity. Furthermore, unrealized changes in fair value attributable to changes in UBS's own credit are not recognized, whereas realized own credit is recognized in *Net trading income*.

Note 33 Main differences between IFRS and Swiss GAAP (continued)

4. Allowances and provisions for credit losses

Swiss GAAP permit use of IFRS for accounting for allowances and provisions for credit losses based on an expected credit loss (ECL) model. UBS has chosen to apply the IFRS 9 ECL approach to those exposures that are in the ECL scope of both frameworks, IFRS and Swiss GAAP.

For the small residual exposures within the scope of Swiss GAAP ECL requirements, which are not subject to ECL under IFRS due to classification differences, UBS applies alternative approaches.

- For exposures for which Pillar 1 internal ratings-based models are applied to measure credit risk, ECL is determined by the regulatory expected loss (EL), with an add-on for scaling up to the residual maturity of exposures maturing beyond the next 12 months, as appropriate. For detailed information on regulatory EL, refer to the “Risk management and control” section of this report.
- For exposures for which the Pillar 1 standardized approach is used to measure credit risk, ECL is determined using a portfolio approach that derives a conservative probability of default (PD) and a conservative loss given default (LGD) for the entire portfolio.

5. Hedge accounting

Under IFRS, when cash flow hedge accounting is applied, the fair value gain or loss on the effective portion of a derivative designated as a cash flow hedge is recognized initially in equity and reclassified to the income statement when certain conditions are met. When fair value hedge accounting is applied, the fair value change of the hedged item attributable to the hedged risk is reflected in the measurement of the hedged item and is recognized in the income statement along with the change in the fair value of the hedging derivative. Under Swiss GAAP, the effective portion of the fair value change of a derivative instrument designated as a cash flow or as a fair value hedge is deferred on the balance sheet as *Other assets* or *Other liabilities*. The carrying amount of the hedged item designated in fair value hedges is not adjusted for fair value changes attributable to the hedged risk.

6. Goodwill and intangible assets

Under IFRS, goodwill acquired in a business combination is not amortized but tested annually for impairment. Intangible assets with an indefinite useful life are also not amortized but tested annually for impairment. Under Swiss GAAP, goodwill and intangible assets with indefinite useful lives are amortized over a period not exceeding five years, unless a longer useful life, which may not exceed 10 years, can be justified. In addition, these assets are tested annually for impairment.

7. Post-employment benefit plans

Swiss GAAP permit the use of IFRS or Swiss accounting standards for post-employment benefit plans, with the election made on a plan-by-plan basis.

UBS has elected to apply IFRS (IAS 19) for the non-Swiss defined benefit plans in the UBS AG standalone financial statements and Swiss GAAP (FER 16) for the Swiss pension plan in the UBS AG and the UBS Switzerland AG standalone financial statements. The requirements of Swiss GAAP are better aligned with the specific nature of Swiss pension plans, which are hybrid in that they combine elements of defined contribution and defined benefit plans, but are treated as defined benefit plans under IFRS. Key differences between Swiss GAAP and IFRS include the treatment of dynamic elements, such as future salary increases and future interest credits on retirement savings, which are not considered under the static method used in accordance with Swiss GAAP. Also, the discount rate used to determine the defined benefit obligation in accordance with IFRS is based on the yield of high-quality corporate bonds of the market in the respective pension plan country. The discount rate used in accordance with Swiss GAAP (i.e., the technical interest rate) is determined by the Pension Foundation Board based on the expected returns of the Board’s investment strategy.

For defined benefit plans, IFRS require the full defined benefit obligation net of the plan assets to be recorded on the balance sheet subject to the asset ceiling rules, with changes resulting from remeasurements recognized directly in equity. However, for non-Swiss defined benefit plans for which IFRS accounting is elected, changes due to remeasurements are recognized in the income statement of UBS AG standalone under Swiss GAAP.

Swiss GAAP require employer contributions to the pension fund to be recognized as personnel expenses in the income statement. Swiss GAAP also require an assessment of whether, based on the pension fund’s financial statements prepared in accordance with Swiss accounting standards (FER 26), an economic benefit to, or obligation of, the employer arises from the pension fund that is recognized in the balance sheet when conditions are met. Conditions for recording a pension asset or liability would be met if, for example, an employer contribution reserve is available or the employer is required to contribute to the reduction of a pension deficit (on an FER 26 basis).

8. Leasing

Under IFRS, a single lease accounting model applies that requires UBS to record a right-of-use (RoU) asset and a corresponding lease liability on the balance sheet when UBS is a lessee in a lease arrangement. The RoU asset and the lease liability are recognized when UBS acquires control of the physical use of the asset. The lease liability is measured based on the present value of the lease payments over the lease term, discounted using UBS's unsecured borrowing rate. The RoU asset is recorded at an amount equal to the lease liability but is adjusted for rent prepayments, initial direct costs, any costs to refurbish the leased asset and / or lease incentives received. The RoU asset is depreciated over the shorter of the lease term or the useful life of the underlying asset.

Under Swiss GAAP, leases that transfer substantially all the risks and rewards, but not necessarily legal title in the underlying assets, are classified as finance leases. All other leases are classified as operating leases. Whereas finance leases are recognized on the balance sheet and measured in line with IFRS, operating leases are not recognized on the balance sheet, with payments recognized as *General and administrative expenses* on a straight-line basis over the lease term, which commences with control of the physical use of the asset. Lease incentives are treated as a reduction of rental expense and recognized on a consistent basis over the lease term.

9. Netting of derivative assets and liabilities

Under IFRS, derivative assets, derivative liabilities and related cash collateral not settled to market are reported on a gross basis unless the restrictive IFRS netting requirements are met: (i) existence of master netting agreements and related collateral arrangements that are unconditional and legally enforceable, in both the normal course of business and the event of default, bankruptcy or insolvency of UBS and its counterparties; and (ii) UBS's intention to either settle on a net basis or to realize the asset and settle the liability simultaneously. Under Swiss GAAP, derivative assets, derivative liabilities and related cash collateral not settled to market are generally reported on a net basis, provided the master netting and the related collateral agreements are legally enforceable in the event of default, bankruptcy or insolvency of UBS's counterparties.

10. Negative interest

Under IFRS, negative interest income arising on a financial asset does not meet the definition of interest income and, therefore, negative interest on financial assets and negative interest on financial liabilities are presented within interest expense and interest income, respectively. Under Swiss GAAP, negative interest on financial assets is presented within interest income and negative interest on financial liabilities is presented within interest expense.

11. Extraordinary income and expense

Certain non-recurring and non-operating income and expense items, such as realized gains or losses from the disposal of participations, fixed and intangible assets, and reversals of impairments of participations and fixed assets, are classified as extraordinary items under Swiss GAAP. This distinction is not available under IFRS. ▲

Note 34 Supplemental guarantor information required under SEC regulations

Joint liability of UBS Switzerland AG

In 2015, the Personal & Corporate Banking and Wealth Management businesses booked in Switzerland were transferred from UBS AG to UBS Switzerland AG through an asset transfer in accordance with the Swiss Merger Act. Under the terms of the asset transfer agreement, UBS Switzerland AG assumed joint liability for contractual obligations of UBS AG existing on the asset transfer date, including the full and unconditional guarantee of certain registered debt securities issued by UBS AG. To reflect this joint liability, UBS Switzerland AG is presented in a separate column as a subsidiary co-guarantor.

The joint liability of UBS Switzerland AG for contractual obligations of UBS AG decreased in 2022 by USD 1.4bn to USD 4.3bn as of 31 December 2022. The decrease substantially relates to a combination of contractual maturities, early extinguishments, fair value movements and foreign currency effects.

Supplemental guarantor consolidated income statement

<i>USD m</i>	UBS AG (standalone) ¹	UBS Switzerland AG (standalone) ¹	Other subsidiaries ²	Elimination entries	UBS AG (consolidated)
For the year ended 31 December 2022					
Interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	4,824	3,894	4,661	(1,575)	11,803
Interest expense from financial instruments measured at amortized cost	(5,449)	(736)	(2,604)	2,093	(6,696)
Net interest income from financial instruments measured at fair value through profit or loss and other	881	546	431	(449)	1,410
Net interest income	257	3,704	2,488	68	6,517
Other net income from financial instruments measured at fair value through profit or loss	5,541	900	940	112	7,493
Fee and commission income	2,875	4,865	13,766	(660)	20,846
Fee and commission expense	(684)	(464)	(1,327)	652	(1,823)
Net fee and commission income	2,191	4,401	12,439	(8)	19,023
Other income	6,732	203	3,329	(8,382)	1,882
Total revenues	14,721	9,208	19,197	(8,210)	34,915
Credit loss expense / (release)	(17)	50	(3)	(1)	29
Personnel expenses	3,251	1,995	9,835	0	15,080
General and administrative expenses	3,374	3,258	5,029	(2,660)	9,001
Depreciation, amortization and impairment of non-financial assets	871	340	744	(109)	1,845
Operating expenses	7,496	5,592	15,607	(2,769)	25,927
Operating profit / (loss) before tax	7,242	3,566	3,592	(5,440)	8,960
Tax expense / (benefit)	(28)	638	1,083	151	1,844
Net profit / (loss)	7,270	2,928	2,509	(5,592)	7,116
Net profit / (loss) attributable to non-controlling interests	0	0	32	0	32
Net profit / (loss) attributable to shareholders	7,270	2,928	2,477	(5,592)	7,084

1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under “Complementary financial information” at ubs.com/investors for information prepared in accordance with Swiss GAAP.

2 The “Other subsidiaries” column includes consolidated information for the UBS Americas Holding LLC, UBS Europe SE and UBS Asset Management AG significant sub-groups, as well as standalone information for other subsidiaries.

Note 34 Supplemental guarantor information required under SEC regulations (continued)

Supplemental guarantor consolidated statement of comprehensive income

<i>USD m</i>	UBS AG (standalone) ¹	UBS Switzerland AG (standalone) ¹	Other subsidiaries ²	Elimination entries	UBS AG (consolidated)
For the year ended 31 December 2022					
Comprehensive income attributable to shareholders					
Net profit / (loss)	7,270	2,928	2,477	(5,592)	7,084
Other comprehensive income					
Other comprehensive income that may be reclassified to the income statement					
Foreign currency translation, net of tax	(114)	(197)	(506)	298	(519)
Financial assets measured at fair value through other comprehensive income, net of tax ³	(3)	0	9	0	6
Cash flow hedges, net of tax	(2,791)	(1,359)	(631)	(12)	(4,793)
Cost of hedging, net of tax	45				45
Total other comprehensive income that may be reclassified to the income statement, net of tax	(2,863)	(1,555)	(1,128)	286	(5,260)
Other comprehensive income that will not be reclassified to the income statement					
Defined benefit plans, net of tax	170	(112)	23	0	81
Own credit on financial liabilities designated at fair value, net of tax	796				796
Total other comprehensive income that will not be reclassified to the income statement, net of tax	966	(112)	23	0	877
Total other comprehensive income	(1,897)	(1,667)	(1,104)	286	(4,383)
Total comprehensive income attributable to shareholders	5,373	1,261	1,373	(5,306)	2,701
Total comprehensive income attributable to non-controlling interests			18		18
Total comprehensive income	5,373	1,261	1,391	(5,306)	2,719

- 1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under "Complementary financial information" at ubs.com/investors for information prepared in accordance with Swiss GAAP.
- 2 The "Other subsidiaries" column includes consolidated information for the UBS Americas Holding LLC, UBS Europe SE and UBS Asset Management AG significant sub-groups, as well as standalone information for other subsidiaries.
- 3 Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. Refer to Note 1b for more information.

Note 34 Supplemental guarantor information required under SEC regulations (continued)

Supplemental guarantor consolidated balance sheet

USD m

As of 31 December 2022

	UBS AG (standalone) ¹	UBS Switzerland AG (standalone) ¹	Other subsidiaries ²	Elimination entries	UBS AG (consolidated)
Assets					
Cash and balances at central banks	48,689	84,465	36,291	0	169,445
Loans and advances to banks	39,691	6,357	19,063	(50,441)	14,671
Receivables from securities financing transactions measured at amortized cost	51,493	903	34,110	(18,691)	67,814
Cash collateral receivables on derivative instruments	35,594	1,221	10,074	(11,856)	35,033
Loans and advances to customers	90,168	229,861	101,231	(31,233)	390,027
Other financial assets measured at amortized cost	24,005	9,532	21,880	(2,029)	53,389
Total financial assets measured at amortized cost	289,641	332,339	222,649	(114,250)	730,379
Financial assets at fair value held for trading	95,810	173	13,899	(1,848)	108,034
<i>of which: assets pledged as collateral that may be sold or repledged by counterparties</i>	<i>41,056</i>	<i>0</i>	<i>5,578</i>	<i>(9,892)</i>	<i>36,742</i>
Derivative financial instruments	149,447	5,925	35,106	(40,368)	150,109
Brokerage receivables	9,763	0	7,814	0	17,576
Financial assets at fair value not held for trading	45,302	4,354	26,843	(17,091)	59,408
Total financial assets measured at fair value through profit or loss	300,321	10,453	83,661	(59,308)	335,127
Financial assets measured at fair value through other comprehensive income	1,953	0	286	0	2,239
Investments in subsidiaries and associates	54,323	33	0	(53,255)	1,101
Property, equipment and software	5,852	1,654	4,077	(267)	11,316
Goodwill and intangible assets	213	0	6,050	5	6,267
Deferred tax assets	1,624	276	7,470	(16)	9,354
Other non-financial assets	6,930	1,768	951	4	9,652
Total assets	660,856	346,522	325,144	(227,087)	1,105,436
Liabilities					
Amounts due to banks	41,395	37,123	51,555	(118,477)	11,596
Payables from securities financing transactions measured at amortized cost	9,425	247	13,303	(18,774)	4,202
Cash collateral payables on derivative instruments	35,528	1,518	11,191	(11,800)	36,436
Customer deposits	98,628	273,316	132,619	22,608	527,171
Funding from UBS Group AG	56,147	0	0	0	56,147
Debt issued measured at amortized cost	50,706	8,965	1	(173)	59,499
Other financial liabilities measured at amortized cost	4,903	2,221	5,554	(2,287)	10,391
Total financial liabilities measured at amortized cost	296,733	323,391	214,222	(128,903)	705,442
Financial liabilities at fair value held for trading	25,059	183	5,843	(1,570)	29,515
Derivative financial instruments	153,778	6,177	35,314	(40,363)	154,906
Brokerage payables designated at fair value	32,346	0	12,746	(7)	45,085
Debt issued designated at fair value	71,444	0	508	(110)	71,842
Other financial liabilities designated at fair value	17,888	0	17,074	(2,928)	32,033
Total financial liabilities measured at fair value through profit or loss	300,514	6,360	71,484	(44,977)	333,382
Provisions	1,904	239	1,041	(2)	3,183
Other non-financial liabilities	1,630	1,019	3,742	98	6,489
Total liabilities	600,782	331,009	290,490	(173,785)	1,048,496
Equity attributable to shareholders	60,075	15,513	34,313	(53,303)	56,598
Equity attributable to non-controlling interests			342	0	342
Total equity	60,075	15,513	34,655	(53,303)	56,940
Total liabilities and equity	660,856	346,522	325,144	(227,087)	1,105,436

1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements, available under “Complementary financial information” at ubs.com/investors, for information prepared in accordance with Swiss GAAP.

2 The “Other subsidiaries” column includes consolidated information for the UBS Americas Holding LLC, UBS Europe SE and UBS Asset Management AG significant sub-groups, as well as standalone information for other subsidiaries.

Note 34 Supplemental guarantor information required under SEC regulations (continued)

Supplemental guarantor consolidated statement of cash flows

USD m

For the year ended 31 December 2022

	UBS AG ¹	UBS Switzerland AG ¹	Other subsidiaries ¹	UBS AG (consolidated)
Net cash flow from / (used in) operating activities	17,286	(1,165)	(5,491)	10,630
Cash flow from / (used in) investing activities				
Purchase of subsidiaries, associates and intangible assets	0	(3)	0	(3)
Disposal of subsidiaries, associates and intangible assets ²	157	453	1,120	1,729
Purchase of property, equipment and software	(562)	(292)	(624)	(1,478)
Disposal of property, equipment and software	161	0	0	161
Purchase of financial assets measured at fair value through other comprehensive income	(4,131)	0	(652)	(4,783)
Disposal and redemption of financial assets measured at fair value through other comprehensive income	3,188	0	896	4,084
Net (purchase) / redemption of debt securities measured at amortized cost	(8,159)	(1,820)	(2,013)	(11,993)
Net cash flow from / (used in) investing activities	(9,346)	(1,663)	(1,274)	(12,283)
Cash flow from / (used in) financing activities				
Net short-term debt issued / (repaid)	(12,215)	(3)	(31)	(12,249)
Distributions paid on UBS AG shares	(4,200)	0	0	(4,200)
Issuance of debt designated at fair value and long-term debt measured at amortized cost ³	78,866	550	41	79,457
Repayment of debt designated at fair value and long-term debt measured at amortized cost ³	(66,526)	(860)	(284)	(67,670)
Net cash flows from other financing activities	(258)	0	(337)	(595)
Net activity related to group internal capital transactions and dividends	5,217	(2,088)	(3,128)	0
Net cash flow from / (used in) financing activities	884	(2,401)	(3,740)	(5,257)
Total cash flow				
Cash and cash equivalents at the beginning of the year	57,895	92,799	57,061	207,755
Net cash flow from / (used in) operating, investing and financing activities	8,824	(5,229)	(10,505)	(6,911)
Effects of exchange rate differences on cash and cash equivalents	(3,111)	(1,338)	(1,196)	(5,645)
Cash and cash equivalents at the end of the year⁴	63,608	86,232	45,359	195,200
<i>of which: cash and balances at central banks</i>	<i>48,607</i>	<i>84,465</i>	<i>36,291</i>	<i>169,363</i>
<i>of which: loans and advances to banks</i>	<i>2,957</i>	<i>1,550</i>	<i>8,821</i>	<i>13,329</i>
<i>of which: money market paper⁵</i>	<i>12,044</i>	<i>216</i>	<i>248</i>	<i>12,508</i>

- Cash flows generally represent a third-party view from a UBS AG consolidated perspective, except for Net activity related to group internal capital transactions and dividends.
- Includes cash proceeds from the sales of: UBS AG's shareholding in Mitsubishi Corp.-UBS Realty Inc.; UBS AG's wholly owned subsidiary UBS Swiss Financial Advisers AG (including a loan portfolio in UBS Switzerland AG); UBS AG's US alternative investments administration business; and UBS AG's domestic wealth management business in Spain. Also includes dividends received from associates.
- Includes funding from UBS Group AG to UBS AG.
- Balances with an original maturity of three months or less. USD 4,253m of cash and cash equivalents were restricted.
- Money market paper is included in the balance sheet under Financial assets at fair value held for trading, Financial assets measured at fair value through other comprehensive income, Financial assets at fair value not held for trading and Other financial assets measured at amortized cost.

Note 34 Supplemental guarantor information required under SEC regulations (continued)

Supplemental guarantor consolidated income statement

<i>USD m</i>	UBS				
For the year ended 31 December 2021	UBS AG (standalone) ¹	Switzerland AG (standalone) ¹	Other subsidiaries ²	Elimination entries	UBS AG (consolidated)
Interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	3,130	3,652	2,456	(703)	8,534
Interest expense from financial instruments measured at amortized cost	(2,847)	(520)	(1,024)	1,025	(3,366)
Net interest income from financial instruments measured at fair value through profit or loss and other	1,229	254	228	(274)	1,437
Net interest income	1,512	3,386	1,660	48	6,605
Other net income from financial instruments measured at fair value through profit or loss	3,751	807	1,369	(83)	5,844
Fee and commission income	3,837	5,204	16,151	(770)	24,422
Fee and commission expense	(810)	(481)	(1,450)	755	(1,985)
Net fee and commission income	3,027	4,723	14,702	(14)	22,438
Other income	7,555	221	1,560	(8,396)	941
Total revenues	15,845	9,137	19,291	(8,445)	35,828
Credit loss expense / (release)	(65)	(98)	(10)	24	(148)
Personnel expenses	3,401	2,098	10,161	1	15,661
General and administrative expenses	4,255	3,442	4,474	(2,696)	9,476
Depreciation, amortization and impairment of non-financial assets	949	285	755	(114)	1,875
Operating expenses	8,605	5,825	15,390	(2,809)	27,012
Operating profit / (loss) before tax	7,305	3,409	3,910	(5,660)	8,964
Tax expense / (benefit)	203	622	1,090	(11)	1,903
Net profit / (loss)	7,102	2,788	2,820	(5,649)	7,061
Net profit / (loss) attributable to non-controlling interests	0	0	29	0	29
Net profit / (loss) attributable to shareholders	7,102	2,788	2,792	(5,649)	7,032

- Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under "Complementary financial information" at ubs.com/investors for information prepared in accordance with Swiss GAAP.
- The "Other subsidiaries" column includes consolidated information for the UBS Americas Holding LLC, UBS Europe SE and UBS Asset Management AG significant sub-groups, as well as standalone information for other subsidiaries.

Supplemental guarantor consolidated statement of comprehensive income

<i>USD m</i>	UBS				
For the year ended 31 December 2021	UBS AG (standalone) ¹	Switzerland AG (standalone) ¹	Other subsidiaries ²	Elimination entries	UBS AG (consolidated)
Comprehensive income attributable to shareholders					
Net profit / (loss)	7,102	2,788	2,792	(5,649)	7,032
Other comprehensive income					
Other comprehensive income that may be reclassified to the income statement					
Foreign currency translation, net of tax	(1)	(419)	(607)	517	(510)
Financial assets measured at fair value through other comprehensive income, net of tax	0		(157)	0	(157)
Cash flow hedges, net of tax	(1,129)	(279)	(250)	(17)	(1,675)
Cost of hedging, net of tax	(26)				(26)
Total other comprehensive income that may be reclassified to the income statement, net of tax	(1,155)	(699)	(1,014)	500	(2,368)
Other comprehensive income that will not be reclassified to the income statement					
Defined benefit plans, net of tax	170	(135)	67	0	102
Own credit on financial liabilities designated at fair value, net of tax	46				46

Total other comprehensive income that will not be reclassified to the income statement, net of tax	217	(135)	67	0	148
Total other comprehensive income	(939)	(834)	(947)	500	(2,220)
Total comprehensive income attributable to shareholders	6,163	1,954	1,845	(5,149)	4,813
Total comprehensive income attributable to non-controlling interests			13		13
Total comprehensive income	6,163	1,954	1,858	(5,149)	4,826

- 1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under “Complementary financial information” at ubs.com/investors for information prepared in accordance with Swiss GAAP.
- 2 The “Other subsidiaries” column includes consolidated information for the UBS Americas Holding LLC, UBS Europe SE and UBS Asset Management AG significant sub-groups, as well as standalone information for other subsidiaries.

Note 34 Supplemental guarantor information required under SEC regulations (continued)

Supplemental guarantor consolidated balance sheet

USD m

As of 31 December 2021

	UBS AG (standalone) ¹	UBS Switzerland AG (standalone) ¹	Other subsidiaries ²	Elimination entries	UBS AG (consolidated)
Assets					
Cash and balances at central banks	53,839	91,031	47,946		192,817
Loans and advances to banks	39,681	7,066	19,858	(51,245)	15,360
Receivables from securities financing transactions measured at amortized cost	50,566	5,438	40,585	(21,577)	75,012
Cash collateral receivables on derivative instruments	29,939	779	10,314	(10,518)	30,514
Loans and advances to customers	101,458	230,170	93,252	(26,188)	398,693
Other financial assets measured at amortized cost	8,902	6,828	12,377	(1,870)	26,236
Total financial assets measured at amortized cost	284,385	341,312	224,332	(111,397)	738,632
Financial assets at fair value held for trading	116,370	79	16,740	(2,156)	131,033
<i>of which: assets pledged as collateral that may be sold or repledged by counterparties</i>	47,891	0	6,073	(10,568)	43,397
Derivative financial instruments	113,426	4,199	35,567	(35,047)	118,145
Brokerage receivables	14,563		7,283	(7)	21,839
Financial assets at fair value not held for trading	37,532	5,413	33,940	(17,243)	59,642
Total financial assets measured at fair value through profit or loss	281,891	9,691	93,531	(54,454)	330,659
Financial assets measured at fair value through other comprehensive income					
Investments in subsidiaries and associates	54,204	37	40	(53,038)	1,243
Property, equipment and software	6,501	1,456	4,048	(293)	11,712
Goodwill and intangible assets	213		6,138	28	6,378
Deferred tax assets	936		7,903		8,839
Other non-financial assets	5,757	2,424	1,656	(1)	9,836
Total assets	634,894	354,921	345,484	(219,154)	1,116,145
Liabilities					
Amounts due to banks	34,691	33,453	50,405	(105,448)	13,101
Payables from securities financing transactions measured at amortized cost	16,711	526	9,910	(21,615)	5,533
Cash collateral payables on derivative instruments	30,260	153	11,845	(10,458)	31,801
Customer deposits	101,093	286,488	142,967	14,287	544,834
Funding from UBS Group AG	57,295				57,295
Debt issued measured at amortized cost	73,045	9,460		(73)	82,432
Other financial liabilities measured at amortized cost	4,477	2,477	5,057	(2,245)	9,765
Total financial liabilities measured at amortized cost	317,572	332,556	220,184	(125,551)	744,762
Financial liabilities at fair value held for trading	25,711	372	7,652	(2,046)	31,688
Derivative financial instruments	116,588	4,053	35,731	(35,063)	121,309
Brokerage payables designated at fair value	30,497		13,548	(1)	44,045
Debt issued designated at fair value	70,660		785	14	71,460
Other financial liabilities designated at fair value	11,127		24,454	(3,167)	32,414
Total financial liabilities measured at fair value through profit or loss	254,584	4,425	82,171	(40,263)	300,916
Provisions	2,023	297	1,153	(21)	3,452
Other non-financial liabilities	1,799	1,278	5,528	(33)	8,572
Total liabilities	575,978	338,556	309,036	(165,868)	1,057,702
Equity attributable to shareholders					
Equity attributable to non-controlling interests	58,916	16,365	36,108	(53,287)	58,102
Total equity	58,916	16,365	36,448	(53,287)	58,442
Total liabilities and equity	634,894	354,921	345,484	(219,154)	1,116,145

1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements, available under “Complementary financial information” at ubs.com/investors, for information prepared in accordance with Swiss GAAP.

2 The “Other subsidiaries” column includes consolidated information for the UBS Americas Holding LLC, UBS Europe SE and UBS Asset Management AG significant sub-groups, as well as standalone information for other subsidiaries.

Note 34 Supplemental guarantor information required under SEC regulations (continued)

Supplemental guarantor consolidated statement of cash flows

<i>USD m</i>	UBS AG ¹	UBS Switzerland AG ¹	Other subsidiaries ¹	UBS AG (consolidated)
For the year ended 31 December 2021				
Net cash flow from / (used in) operating activities	<u>5,714</u>	<u>2,131</u>	<u>22,718</u>	<u>30,563</u>
Cash flow from / (used in) investing activities				
Purchase of subsidiaries, associates and intangible assets	0	(1)	0	(1)
Disposal of subsidiaries, associates and intangible assets ²	16	0	577	593
Purchase of property, equipment and software	(656)	(276)	(650)	(1,581)
Disposal of property, equipment and software	294	0	1	295
Purchase of financial assets measured at fair value through other comprehensive income	(1,006)	0	(4,795)	(5,802)
Disposal and redemption of financial assets measured at fair value through other comprehensive income	189	0	4,863	5,052
Net (purchase) / redemption of debt securities measured at amortized cost	(807)	772	(380)	(415)
Net cash flow from / (used in) investing activities	<u>(1,970)</u>	<u>495</u>	<u>(385)</u>	<u>(1,860)</u>
Cash flow from / (used in) financing activities				
Net short-term debt issued / (repaid)	(3,073)	(21)	0	(3,093)
Distributions paid on UBS AG shares	(4,539)	0	0	(4,539)
Issuance of debt designated at fair value and long-term debt measured at amortized cost ³	97,250	1,177	193	98,619
Repayment of debt designated at fair value and long-term debt measured at amortized cost ³	(78,385)	(1,093)	(320)	(79,799)
Net cash flows from other financing activities	(280)	0	20	(261)
Net activity related to group internal capital transactions and dividends	5,240	(537)	(4,702)	0
Net cash flow from / (used in) financing activities	<u>16,212</u>	<u>(475)</u>	<u>(4,811)</u>	<u>10,927</u>
Total cash flow				
Cash and cash equivalents at the beginning of the year	39,400	93,342	40,689	173,430
Net cash flow from / (used in) operating, investing and financing activities	19,957	2,151	17,523	39,630
Effects of exchange rate differences on cash and cash equivalents	(1,462)	(2,693)	(1,151)	(5,306)
Cash and cash equivalents at the end of the year⁴	<u>57,895</u>	<u>92,799</u>	<u>57,061</u>	<u>207,755</u>
<i>of which: cash and balances at central banks</i>	<i>53,729</i>	<i>91,031</i>	<i>47,946</i>	<i>192,706</i>
<i>of which: loans and advances to banks</i>	<i>3,258</i>	<i>1,588</i>	<i>8,975</i>	<i>13,822</i>
<i>of which: money market paper⁵</i>	<i>908</i>	<i>179</i>	<i>139</i>	<i>1,227</i>

- 1 Cash flows generally represent a third-party view from a UBS AG consolidated perspective, except for Net activity related to group internal capital transactions and dividends.
- 2 Includes cash proceeds from the sale of the minority stake in Clearstream Fund Centre AG and dividends received from associates.
- 3 Includes funding from UBS Group AG to UBS AG.
- 4 Balances with an original maturity of three months or less. USD 3,408m of cash and cash equivalents were restricted.
- 5 Money market paper is included in the balance sheet under Financial assets at fair value held for trading, Financial assets measured at fair value through other comprehensive income, Financial assets at fair value not held for trading and Other financial assets measured at amortized cost.

Note 34 Supplemental guarantor information required under SEC regulations (continued)

Supplemental guarantor consolidated income statement

<i>USD m</i> For the year ended 31 December 2020	UBS AG (standalone) ¹	UBS Switzerland AG (standalone) ¹	Other subsidiaries ²	Elimination entries	UBS AG (consolidated)
Interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	3,386	3,636	2,612	(818)	8,816
Interest expense from financial instruments measured at amortized cost	(3,694)	(513)	(1,261)	1,134	(4,333)
Net interest income from financial instruments measured at fair value through profit or loss and other	1,103	164	311	(273)	1,305
Net interest income	794	3,288	1,662	43	5,788
Other net income from financial instruments measured at fair value through profit or loss	4,857	911	1,044	118	6,930
Fee and commission income	3,731	4,585	13,651	(984)	20,982
Fee and commission expense	(644)	(829)	(1,263)	961	(1,775)
Net fee and commission income	3,087	3,756	12,388	(23)	19,207
Other income	4,671	233	2,585	(5,941)	1,549
Total revenues	13,410	8,188	17,679	(5,803)	33,474
Credit loss expense / (release)	352	286	56	0	695
Personnel expenses	3,458	2,017	9,211	0	14,686
General and administrative expenses	3,507	3,313	4,147	(2,481)	8,486
Depreciation, amortization and impairment of non-financial assets	1,013	261	750	(115)	1,909
Operating expenses	7,978	5,591	14,108	(2,596)	25,081
Operating profit / (loss) before tax	5,079	2,311	3,515	(3,207)	7,699
Tax expense / (benefit)	238	444	912	(107)	1,488
Net profit / (loss)	4,840	1,868	2,603	(3,100)	6,211
Net profit / (loss) attributable to non-controlling interests	0	0	15	0	15
Net profit / (loss) attributable to shareholders	4,840	1,868	2,588	(3,100)	6,196

- Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under “Complementary financial information” at ubs.com/investors for information prepared in accordance with Swiss GAAP.
- The “Other subsidiaries” column includes consolidated information for the UBS Americas Holding LLC, UBS Europe SE and UBS Asset Management AG significant sub-groups, as well as standalone information for other subsidiaries.

Supplemental guarantor consolidated statement of comprehensive income

<i>USD m</i> For the year ended 31 December 2020	UBS AG (standalone) ¹	UBS Switzerland AG (standalone) ¹	Other subsidiaries ²	Elimination entries	UBS AG (consolidated)
Comprehensive income attributable to shareholders					
Net profit / (loss)	4,840	1,868	2,588	(3,100)	6,196
Other comprehensive income					
Other comprehensive income that may be reclassified to the income statement					
Foreign currency translation, net of tax	81	1,228	690	(969)	1,030
Financial assets measured at fair value through other comprehensive income, net of tax	0	0	137	0	136
Cash flow hedges, net of tax	902	26	101	(18)	1,011
Cost of hedging, net of tax	(13)				(13)
Total other comprehensive income that may be reclassified to the income statement, net of tax	971	1,254	928	(988)	2,165
Other comprehensive income that will not be reclassified to the income statement					
Defined benefit plans, net of tax	(67)	(107)	40	0	(134)
Own credit on financial liabilities designated at fair value, net of tax	(293)				(293)
Total other comprehensive income that will not be reclassified to the income statement, net of tax	(360)	(107)	40	0	(427)

Total other comprehensive income	611	1,147	968	(988)	1,738
Total comprehensive income attributable to shareholders	5,451	3,015	3,556	(4,088)	7,934
Total comprehensive income attributable to non-controlling interests			36		36
Total comprehensive income	5,451	3,015	3,592	(4,088)	7,970

- 1 Amounts presented for UBS AG standalone and UBS Switzerland AG standalone represent IFRS standalone information. Refer to the UBS AG standalone and UBS Switzerland AG standalone financial statements under “Complementary financial information” at ubs.com/investors for information prepared in accordance with Swiss GAAP
- 2 The “Other subsidiaries” column includes consolidated information for the UBS Americas Holding LLC, UBS Europe SE and UBS Asset Management AG significant sub-groups, as well as standalone information for other subsidiaries.

Note 34 Supplemental guarantor information required under SEC regulations (continued)

Supplemental guarantor consolidated statement of cash flows

<i>USD m</i> For the year ended 31 December 2020	UBS AG ¹	UBS Switzerland AG ¹	Other subsidiaries ¹	UBS AG (consolidated)
Net cash flow from / (used in) operating activities	<u>(14,883)</u>	<u>24,661</u>	<u>26,804</u>	<u>36,581</u>
Cash flow from / (used in) investing activities				
Purchase of subsidiaries, associates and intangible assets	0	(3)	(43)	(46)
Disposal of subsidiaries, associates and intangible assets ²	14	0	660	674
Purchase of property, equipment and software	(714)	(162)	(697)	(1,573)
Disposal of property, equipment and software	361	0	3	364
Purchase of financial assets measured at fair value through other comprehensive income	(77)	0	(6,213)	(6,290)
Disposal and redemption of financial assets measured at fair value through other comprehensive income	79	0	4,451	4,530
Net (purchase) / redemption of debt securities measured at amortized cost	(3,021)	132	(1,277)	(4,166)
Net cash flow from / (used in) investing activities	<u>(3,357)</u>	<u>(33)</u>	<u>(3,117)</u>	<u>(6,506)</u>
Cash flow from / (used in) financing activities				
Net short-term debt issued / (repaid)	23,828	17	0	23,845
Distributions paid on UBS AG shares	(3,848)	0	0	(3,848)
Issuance of debt designated at fair value and long-term debt measured at amortized cost ³	78,867	1,057	229	80,153
Repayment of debt designated at fair value and long-term debt measured at amortized cost ³	(86,204)	(776)	(118)	(87,099)
Net cash flows from other financing activities	(290)	0	(263)	(553)
Net activity related to group internal capital transactions and dividends	2,984	(1,307)	(1,677)	0
Net cash flow from / (used in) financing activities	<u>15,336</u>	<u>(1,009)</u>	<u>(1,829)</u>	<u>12,498</u>
Total cash flow				
Cash and cash equivalents at the beginning of the year	39,598	62,551	17,655	119,804
Net cash flow from / (used in) operating, investing and financing activities	(2,905)	23,619	21,859	42,573
Effects of exchange rate differences on cash and cash equivalents	2,706	7,171	1,175	11,053
Cash and cash equivalents at the end of the year⁴	<u>39,400</u>	<u>93,342</u>	<u>40,689</u>	<u>173,430</u>
<i>of which: cash and balances at central banks</i>	34,283	91,638	32,167	158,088
<i>of which: loans and advances to banks</i>	4,085	1,695	8,148	13,928
<i>of which: money market paper⁵</i>	1,032	9	374	1,415

- 1 Cash flows generally represent a third-party view from a UBS AG consolidated perspective, except for Net activity related to group internal capital transactions and dividends.
- 2 Includes cash proceeds from the sale of the majority stake in Fondcenter AG and dividends received from associates.
- 3 Includes funding from UBS Group AG to UBS AG.
- 4 Balances with an original maturity of three months or less. USD 3,828m of cash and cash equivalents were restricted.
- 5 Money market paper is included in the balance sheet under Financial assets at fair value held for trading, Financial assets measured at fair value through other comprehensive income, Financial assets at fair value not held for trading and Other financial assets measured at amortized cost. ▲

Significant regulated subsidiary and sub-group information

Financial and regulatory key figures for our significant regulated subsidiaries and sub-groups

	UBS AG (standalone)		UBS Switzerland AG (standalone)		UBS Europe SE (consolidated)		UBS Americas Holding LLC (consolidated)	
	USD		CHF		EUR		USD	
Financial and regulatory requirements As of or for the year ended	Swiss GAAP Swiss SRB rules		Swiss GAAP Swiss SRB rules		IFRS EU regulatory rules		US GAAP US Basel III rules	
	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21	31.12.22	31.12.21
Financial information¹								
Income statement								
Total operating income ²	15,759	16,293	8,760	8,490	1,158	1,123	13,575	14,490
Total operating expenses	8,505	9,712	5,458	5,472	794	800	12,351	11,925
Operating profit / (loss) before tax	7,253	6,581	3,302	3,018	364	323	1,224	2,565
Net profit / (loss)	7,157	6,548	2,707	2,452	262	227	511	1,812
Balance sheet								
Total assets	504,767	509,851	315,657	320,656	47,978	46,411	201,777	209,718
Total liabilities	447,406	455,446	300,164	305,919	44,360	42,664	176,309	182,633
Total equity	57,361	54,405	15,493	14,736	3,617	3,747	25,468	27,085
Capital³								
Common equity tier 1 capital	53,995	52,818	12,586	12,609	2,441	2,764	11,367	13,002
Additional tier 1 capital	11,841	13,840	5,393	5,387	600	290	5,082	4,049
Total going concern capital / Tier 1 capital	65,836	66,658	17,978	17,996	3,041	3,054	16,449	17,051
Tier 2 capital	2,949	3,129					131	125
Total capital					3,041	3,054	16,580	17,176
Total gone concern loss-absorbing capacity	46,982	44,250	11,267	10,853	2,130 ⁴	2,414 ⁴	7,400 ⁵	7,000 ⁵
Total loss-absorbing capacity	112,818	110,908	29,245	28,849	5,171	5,468	23,849	24,051
Risk-weighted assets and leverage ratio denominator³								
Risk-weighted assets	332,864	317,913	107,208	106,399	10,726	12,328	70,739	72,979
Leverage ratio denominator	575,461	593,868	332,280	339,788	41,818	46,660	194,003	188,130 ⁶
Supplementary leverage ratio denominator							214,709	212,167
Capital and leverage ratios (%)³								
Common equity tier 1 capital ratio	16.2	16.6	11.7	11.9	22.8	22.4	16.1	17.8
Going concern capital ratio / Tier 1 capital ratio	19.8	21.0	16.8	16.9	28.3	24.8	23.3	23.4
Total capital ratio					28.3	24.8	23.4	23.5
Total loss-absorbing capacity ratio			27.3	27.1	48.2	44.4	33.7	33.0
Tier 1 leverage ratio					7.3	6.5	8.5	9.1
Supplementary tier 1 leverage ratio							7.7	8.0
Going concern leverage ratio	11.4	11.2	5.4	5.3				
Total loss-absorbing capacity leverage ratio			8.8	8.5	12.4	11.7	12.3	12.8
Gone concern capital coverage ratio	117.1	112.0						
Liquidity coverage ratio³								
High-quality liquid assets (bn)	101.6	89.5	88.9	91.3	20.6	17.1	26.3	32.4
Net cash outflows (bn)	53.6	52.2	62.4	64.1	13.1	10.1	18.3	22.0
Liquidity coverage ratio (%)	191.2 ⁷	173.2	142.4 ⁸	142.6	158.7	170.3	143.5	147.2
Net stable funding ratio^{3,9}								
Total available stable funding (bn)	254.4	258.0	221.7	225.2	13.9	15.4		
Total required stable funding (bn)	280.2	289.2	162.3	158.1	7.9	9.0		
Net stable funding ratio (%)	90.8 ¹⁰	89.2	136.6 ¹⁰	142.5	174.6	171.3		
Other								
Joint and several liability between UBS AG and UBS Switzerland AG (bn) ¹¹			4	5				

1 The financial information disclosed does not represent financial statements under the respective GAAP / IFRS.

2 The total operating income includes credit loss expense / (release).

3 Refer to the 31 December 2022 Pillar 3 Report, available under "Pillar 3 disclosures" at ubs.com/investors, for more information.

4 Consists of positions that meet the conditions laid down in Art. 72a–b of the Capital Requirements Regulation (CRR) II with regard to contractual, structural or legal subordination.

5 Consists of eligible long-term debt that meets the conditions specified in 12 CFR 252.162 of the final TLAC rules. Total loss-absorbing capacity is the sum of tier 1 capital (excluding minority interest) and eligible long-term debt.

- 6 The leverage ratio denominator as of 31 December 2021 has been aligned with UBS Americas Holding LLC's reported figure in the FR-Y9C report, which was filed with the Board of Governors of the Federal Reserve.
- 7 In the fourth quarter of 2022, the liquidity coverage ratio (the LCR) of UBS AG was 191.2%, remaining above the prudential requirements communicated by FINMA.
- 8 In the fourth quarter of 2022, the LCR of UBS Switzerland AG, which is a Swiss SRB, was 142.4%, remaining above the prudential requirement communicated by FINMA in connection with the Swiss Emergency Plan.
- 9 For UBS Americas Holding LLC consolidated, the NSFR requirement became effective as of 1 July 2021 and related disclosures will come into effect in the second quarter of 2023.
- 10 In accordance with Art. 17h para. 3 and 4 of the Liquidity Ordinance, UBS AG standalone is required to maintain a minimum NSFR of at least 80% without taking into account excess funding of UBS Switzerland AG and 100% after taking into account such excess funding.
- 11 Refer to the "Capital, liquidity and funding, and balance sheet" section of this report for more information about the joint and several liability. Under certain circumstances, the Swiss Banking Act and FINMA's Banking Insolvency Ordinance authorize FINMA to modify, extinguish or convert to common equity liabilities of a bank in connection with a resolution or insolvency of such bank.

UBS Group AG is a holding company and conducts substantially all of its operations through UBS AG and subsidiaries thereof. UBS Group AG and UBS AG have contributed a significant portion of their respective capital to, and provide substantial liquidity to, such subsidiaries. Many of these subsidiaries are subject to regulations requiring compliance with minimum capital, liquidity and similar requirements. The table in this section summarizes the regulatory capital components and capital ratios of our significant regulated subsidiaries and sub-groups determined under the regulatory framework of each subsidiary's or sub-group's home jurisdiction.

- **Refer to “Capital and capital ratios of our significant regulated subsidiaries” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information**
- **Refer to “Note 22 Restricted and transferred financial assets” in the “Consolidated financial statements” section of this report for more information**

Supervisory authorities generally have discretion to impose higher requirements or to otherwise limit the activities of subsidiaries. Supervisory authorities also may require entities to measure capital and leverage ratios on a stressed basis and may limit the ability of an entity to engage in new activities or take capital actions based on the results of those tests.

Following the completion of the annual Dodd–Frank Act Stress Test (DFAST) and the Comprehensive Capital Analysis and Review (CCAR), UBS Americas Holding LLC was assigned a stress capital buffer (an SCB) of 4.8% (previously 7.1%) under the SCB rule as of 1 October 2022, resulting in a total common equity tier 1 capital requirement of 9.3%.

Standalone regulatory information for UBS AG and UBS Switzerland AG, as well as consolidated regulatory information for UBS Europe SE and UBS Americas Holding LLC, is provided in the 31 December 2022 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors.

Standalone financial statements for UBS Group AG, as well as standalone financial statements and regulatory information for UBS AG and UBS Switzerland AG, are available under “Holding company and significant regulated subsidiaries and sub-groups” at ubs.com/investors.

Additional regulatory information

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UBS Group AG consolidated supplemental disclosures required under SEC regulations

A – Introduction

The following pages contain supplemental UBS Group AG disclosures that are required under SEC regulations. UBS Group AG’s consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (the IASB) and are denominated in US dollars (USD), which is also the functional currency of: UBS Group AG; UBS AG’s Head Office; UBS AG London Branch; and UBS’s US-based operations.

B – Selected financial data

Selected information

	As of or for the year ended		
	31.12.22	31.12.21	31.12.20
Personnel (full-time equivalents)	72,597	71,385	71,551
Americas	21,819	21,317	21,394
<i>of which: USA</i>	21,032	20,537	20,528
Asia Pacific	16,489	15,618	15,353
Europe, Middle East and Africa (excluding Switzerland)	14,342	14,091	13,899
<i>of which: UK</i>	6,234	6,051	6,069
<i>of which: rest of Europe (excluding Switzerland)</i>	7,823	7,826	7,652
<i>of which: Middle East and Africa</i>	285	215	178
Switzerland	19,947	20,359	20,904
Registered ordinary shares (number) ¹	3,524,635,722	3,702,422,995	3,859,055,395
Treasury shares (number) ¹	416,909,010	302,815,328	307,477,002
Ordinary cash dividends declared per share (CHF) ^{2,3}		0.47	0.34
Ordinary cash dividends declared per share (USD) ^{2,3}	0.55	0.50	0.37

1 Refer to “UBS shares” in the “Capital, liquidity and funding, and balance sheet” section of this report for more information.

2 Dividends and / or distributions out of the capital contribution reserve are normally approved and paid in the year subsequent to the reporting period. Beginning in 2020, dividends have been declared in US dollars. The Swiss franc equivalent amount for the 2022 dividend will be determined after the Annual General Meeting using the exchange rate applicable on that date and is therefore not provided in this table.

3 Refer to “Statement of proposed appropriation of total profit and dividend distribution out of total profit and capital contribution reserve” in the “Standalone financial statements” section of this report for more information.

Dividends received from investments in subsidiaries

In 2022, UBS Group AG received dividends of USD 4,373m (2021: USD 4,672m; 2020: USD 3,853m) from its subsidiaries. Dividends disclosed have been translated to US dollars from the functional currency of the entity paying the dividend, using the closing exchange rate of the month the dividend was received.

Balance sheet data

<i>USD m</i>	31.12.22	31.12.21	31.12.20
Assets			
Cash and balances at central banks	169,445	192,817	158,231
Loans and advances to banks	14,792	15,480	15,444
Receivables from securities financing transactions at amortized cost	67,814	75,012	74,210
Cash collateral receivables on derivative instruments	35,032	30,514	32,737
Loans and advances to customers	387,220	397,761	379,528
Other financial assets measured at amortized cost	53,264	26,209	27,194
Total financial assets measured at amortized cost	727,568	737,794	687,345
Financial assets at fair value held for trading	107,866	130,821	125,397
of which: assets pledged as collateral that may be sold or repledged by counterparties	36,742	43,397	47,098
Derivative financial instruments	150,108	118,142	159,617
Brokerage receivables	17,576	21,839	24,659
Financial assets at fair value not held for trading	59,796	60,080	80,364
Total financial assets measured at fair value through profit or loss	335,347	330,882	390,037
Financial assets measured at fair value through other comprehensive income	2,239	8,844	8,258
Investments in associates	1,101	1,243	1,557
Property, equipment and software	12,288	12,888	13,109
Goodwill and intangible assets	6,267	6,378	6,480
Deferred tax assets	9,389	8,876	9,212
Other non-financial assets	10,166	10,277	9,768
Total assets	1,104,364	1,117,182	1,125,765
Liabilities			
Amounts due to banks	11,596	13,101	11,050
Payables from securities financing transactions at amortized cost	4,202	5,533	6,321
Cash collateral payables on derivative instruments	36,436	31,798	37,312
Customer deposits	525,051	542,007	524,605
Debt issued measured at amortized cost	114,621	139,155	139,232
Other financial liabilities measured at amortized cost	9,575	9,001	9,729
Total financial liabilities measured at amortized cost	701,481	740,595	728,250
Financial liabilities at fair value held for trading	29,515	31,688	33,595
Derivative financial instruments	154,906	121,309	161,102
Brokerage payables designated at fair value	45,085	44,045	38,742
Debt issued designated at fair value	73,638	73,799	61,243
Other financial liabilities designated at fair value	30,237	30,074	30,387
Total financial liabilities measured at fair value through profit or loss	333,381	300,916	325,069
Provisions	3,243	3,518	2,828
Other non-financial liabilities	9,040	11,151	9,854
Total liabilities	1,047,146	1,056,180	1,066,000
Equity attributable to shareholders	56,876	60,662	59,445
Equity attributable to non-controlling interests	342	340	319
Total equity	57,218	61,002	59,765
Total liabilities and equity	1,104,364	1,117,182	1,125,765

C – Information about the company

Property, plant and equipment

As of 31 December 2022, UBS operated in about 677 business and banking locations worldwide, of which approximately 33% were in Switzerland, 48% in the Americas, 9% in the rest of Europe, the Middle East and Africa, and 10% in Asia Pacific. Of the business and banking locations in Switzerland, 23% were owned directly by UBS, with the remainder, along with most of UBS's offices outside Switzerland, being held under commercial leases. These premises are subject to continuous maintenance and upgrading and are considered suitable and adequate for current and anticipated operations.

Selected statistical information

The tables below set forth selected statistical information regarding the Group's banking operations extracted from its financial statements. Unless otherwise indicated, average balances for the years ended 31 December 2022, 31 December 2021 and 31 December 2020 are calculated from monthly data. Unless otherwise indicated, the distinction between domestic (Swiss) and foreign (non-Swiss) is generally based on the booking location.

Average balances and interest rates

The tables below set forth average interest-earning assets and average interest-bearing liabilities, along with the average yield, for 2022, 2021 and 2020. Refer to "Note 3 Net interest income and other net income from financial instruments measured at fair value through profit or loss" in the "Consolidated financial statements" section of this report for more information about interest income and interest expense.

For the year ended	31.12.22			31.12.21			31.12.20		
	Average balance	Interest income	Average yield (%)	Average balance	Interest income	Average yield (%)	Average balance	Interest income	Average yield (%)
<i>USD m, except where indicated</i>									
Assets									
Balances at central banks									
Domestic	99,777	92	0.1	98,804	(105)	(0.1)	90,234	(112)	(0.1)
Foreign	88,267	595	0.7	71,529	(31)	0.0	51,611	7	0.0
Loans and advances to banks									
Domestic	2,966	50	1.7	3,158	40	1.3	2,930	43	1.5
Foreign	12,345	8	0.1	13,074	12	0.1	12,089	31	0.3
Receivables from securities financing transactions measured at amortized cost ¹									
Domestic	6,431	30	0.5	9,435	(28)	(0.3)	4,746	8	0.2
Foreign	70,942	1,105	1.6	79,297	234	0.3	92,098	551	0.6
Loans and advances to customers									
Domestic	223,970	3,187	1.4	228,070	3,211	1.4	210,971	3,014	1.4
Foreign	160,509	4,829	3.0	160,902	2,700	1.7	138,515	3,139	2.3
Financial assets at fair value ^{1,2}									
Domestic	5,892	50	0.8	10,006	11	0.1	12,455	40	0.3
Foreign	151,504	2,113	1.4	169,267	1,203	0.7	192,251	1,826	0.9
Other interest-earning assets									
Domestic	8,226	125	1.5	7,477	121	1.6	8,064	136	1.7
Foreign	63,107	858	1.4	47,040	298	0.6	45,442	386	0.8
Total interest-earning assets³	893,936	13,043	1.5	898,059	7,666	0.9	861,406	9,068	1.1
Net interest income on swaps		1,804			1,552			1,134	
Interest income on off-balance sheet securities and other		677			472			386	
Interest income and average interest-earning assets	893,936	15,525⁴	1.7	898,059	9,689⁴	1.1	861,406	10,588⁴	1.2
Non-interest-earning assets ⁵	299,488			298,224			310,129		
Total average assets	1,193,424			1,196,284			1,171,535		

- Reverse repurchase agreements are presented on a gross basis and therefore, for the purpose of this disclosure, do not reflect the effect of netting permitted under IFRS.
- Includes financial assets at fair value held for trading, financial assets at fair value not held for trading, financial assets at fair value through other comprehensive income and brokerage receivables.
- Non-taxable positions and amounts were not material for the years presented.
- For the purpose of this disclosure, negative interest income on assets is presented as a reduction to interest income, while in the consolidated income statement negative interest income on assets is presented as interest expense. Refer to Note 3 Net interest income and other net income from financial instruments measured at fair value through profit or loss in the "Consolidated financial statements" section of this report for more information.
- Mainly includes derivative financial instruments, equity instruments at fair value held for trading and financial assets for unit-linked investment contracts.

Average balances and interest rates (continued)

For the year ended	31.12.22			31.12.21			31.12.20		
	Average balance	Interest expense	Average interest rate (%)	Average balance	Interest expense	Average interest rate (%)	Average balance	Interest expense	Average interest rate (%)
<i>USD m, except where indicated</i>									
Liabilities and equity									
Amount due to banks									
Domestic	10,733	3	0.0	10,369	(32)	(0.3)	8,097	(9)	(0.1)
Foreign	3,255	43	1.3	2,897	18	0.6	3,169	26	0.8
Payables from securities financing transactions measured at amortized cost ¹									
Domestic	3,357	40	1.2	4,786	1	0.0	3,888	6	0.2
Foreign	13,351	289	2.2	14,161	209	1.5	18,793	174	0.9
Customer deposits									
Domestic	272,926	(82)	0.0	289,096	(290)	(0.1)	263,619	(173)	(0.1)
<i>of which: demand deposits</i>	147,903	(149)	(0.1)	160,019	(273)	(0.2)	137,599	(166)	(0.1)
<i>of which: savings and sweep deposits</i>	119,685	6	0.0	126,290	4	0.0	121,793	3	0.0
<i>of which: time deposits</i>	5,337	60	1.1	2,786	(20)	(0.7)	4,227	(9)	(0.2)
Foreign	246,072	1,819	0.7	232,165	107	0.0	214,785	552	0.3
<i>of which: demand deposits</i>	66,987	120	0.2	82,226	(31)	0.0	64,957	(6)	0.0
<i>of which: savings and sweep deposits</i>	111,130	578	0.5	99,847	81	0.1	71,341	194	0.3
<i>of which: time deposits</i>	67,955	1,121	1.7	50,092	58	0.1	78,488	363	0.5
Commercial paper									
Domestic	1	0	0.0	292	0	0.0	130	0	(0.3)
Foreign	20,452	256	1.3	24,461	33	0.1	17,098	120	0.7
Other short-term debt issued measured at amortized cost									
Domestic	366	4	1.2	13	0	(0.1)	10	0	0.0
Foreign	11,927	124	1.0	18,473	37	0.2	16,989	147	0.9
Long-term debt issued measured at amortized cost									
Domestic	67,462	1,946	2.9	67,916	1,789	2.6	64,899	1,988	3.1
Foreign	22,929	439	1.9	27,820	491	1.8	27,100	581	2.1
Financial liabilities at fair value (excluding debt issued designated at fair value) ^{1,2}									
Domestic	291	11	3.7	421	3	0.8	700	2	0.3
Foreign	139,657	1,392	1.0	137,268	13	0.0	145,398	324	0.2
Debt issued designated at fair value									
Domestic	9,278	127	1.4	9,905	48	0.5	4,376	35	0.8
Foreign	63,470	1,283	2.0	60,388	429	0.7	56,442	801	1.4
Other interest-bearing liabilities									
Domestic	2,883	14	0.5	2,884	(7)	(0.2)	3,333	(6)	(0.2)
Foreign	38,938	432	1.1	34,943	105	0.3	38,606	191	0.5
Total interest-bearing liabilities	927,347	8,142	0.9	938,259	2,954	0.3	887,433	4,759	0.5
Swap interest on hedged debt issued and other swaps		40			(765)			(608)	
Interest expense on off-balance sheet securities and other		723			795			576	
Interest expense and average interest-bearing liabilities	927,347	8,904³	1.0	938,259	2,985³	0.3	887,433	4,726³	0.5
Non-interest-bearing liabilities ⁴	208,049			198,130			226,388		
Total liabilities	1,135,396			1,136,389			1,113,820		
Total equity	58,028			59,895			57,715		
Total average liabilities and equity	1,193,424			1,196,284			1,171,535		
Net interest income		6,621			6,705			5,862	
Net yield on interest-earning assets			0.7			0.7			0.7

1 Repurchase agreements are presented on a gross basis and therefore, for the purpose of this disclosure, do not reflect the effect of netting permitted under IFRS.

2 Includes financial liabilities at fair value held for trading, other financial liabilities designated at fair value and brokerage payables designated at fair value.

- 3 For the purpose of this disclosure, negative interest expense on liabilities is presented as a reduction to interest expense, while in the consolidated income statement negative interest income on liabilities is presented as interest income. Refer to Note 3 Net interest income and other net income from financial instruments measured at fair value through profit or loss in the “Consolidated financial statements” section of this report for more information.
- 4 Mainly includes derivative financial instruments, equity instruments at fair value held for trading and financial liabilities related to unit-linked investment contracts.

The percentage of total average interest-earning assets attributable to foreign activities was 61% for 2022 (2021: 60%; 2020: 62%). The percentage of total average interest-bearing liabilities attributable to foreign activities was 60% for 2022 (2021: 59%; 2020: 61%). All assets and liabilities are translated into US dollars at uniform month-end rates. Interest income and expense are translated at monthly average rates.

Average rates earned and paid on assets and liabilities can change from period to period, based on the changes in interest rates in general, but are also affected by changes in the currency mix included in the assets and liabilities. Tax-exempt income is not recorded on a tax-equivalent basis. For all three years presented, tax-exempt income is considered to be insignificant and the effect from such income is therefore negligible.

Analysis of changes in interest income and expense

The tables below provide information, by categories of interest-earning assets and interest-bearing liabilities, about the changes in interest income and expense due to changes in volume and interest rates for the year ended 31 December 2022 compared with the year ended 31 December 2021, and for the year ended 31 December 2021 compared with the year ended 31 December 2020. The change in average volume represents the change in the current average balance compared to the average balance from the prior year with respect to the average rate of the prior year. The change in average rate represents the difference between the net change in interest income and expense and the change in average volume.

<i>USD m</i>	2022 compared with 2021			2021 compared with 2020		
	Increase / (decrease) due to changes in			Increase / (decrease) due to changes in		
	Average volume	Average interest rate	Net change	Average volume	Average interest rate	Net change
Interest income from interest-earning assets						
Balances at central banks						
Domestic	(1)	198	197	(9)	16	7
Foreign	0	626	626	0	(38)	(38)
Loans and advances to banks						
Domestic	(2)	12	10	3	(6)	(3)
Foreign	(1)	(3)	(4)	3	(23)	(20)
Receivables from securities financing transactions measured at amortized cost						
Domestic	9	49	58	9	(44)	(35)
Foreign	(25)	896	871	(77)	(240)	(317)
Loans and advances to customers						
Domestic	(57)	34	(23)	239	(42)	197
Foreign	(7)	2,135	2,128	515	(954)	(439)
Financial assets at fair value						
Domestic	(4)	43	39	(7)	(22)	(29)
Foreign	(124)	1,034	910	(207)	(416)	(623)
Other interest-earning assets						
Domestic	12	(8)	4	(10)	(5)	(15)
Foreign	102	458	560	13	(101)	(88)
Interest income						
Domestic	(43)	328	285	225	(103)	122
Foreign	(55)	5,147	5,092	247	(1,771)	(1,524)
Total interest income from interest-earning assets						
Net interest income on swaps			253			418
Interest income on off-balance sheet securities and other			205			86
Total interest income			5,836			(899)

Analysis of changes in interest income and expense (continued)

<i>USD m</i>	2022 compared with 2021			2021 compared with 2020		
	Increase / (decrease) due to changes in			Increase / (decrease) due to changes in		
	Average volume	Average interest rate	Net change	Average volume	Average interest rate	Net change
Interest expense on interest-bearing liabilities						
Amount due to banks						
Domestic	(1)	36	35	(2)	(21)	(23)
Foreign	2	23	25	(2)	(6)	(8)
Payables from securities financing transactions measured at amortized cost						
Domestic	0	39	39	2	(7)	(5)
Foreign	(12)	92	80	(42)	76	34
Customer deposits						
Domestic	2	206	208	(19)	(98)	(117)
<i>of which: demand deposits</i>	21	104	125	(22)	(86)	(108)
<i>of which: savings and sweep deposits</i>	0	2	2	0	1	1
<i>of which: time deposits</i>	(19)	99	80	3	(14)	(11)
Foreign	6	1,707	1,713	52	(497)	(445)
<i>of which: demand deposits</i>	6	145	151	(2)	(24)	(26)
<i>of which: savings and sweep deposits</i>	9	488	497	78	(192)	(114)
<i>of which: time deposits</i>	(9)	1,073	1,064	(24)	(281)	(305)
Commercial paper						
Domestic	0	0	0	0	0	0
Foreign	(5)	228	223	52	(138)	(86)
Other short-term debt issued measured at amortized cost						
Domestic	0	5	5	0	0	0
Foreign	(13)	100	87	13	(123)	(110)
Long-term debt issued measured at amortized cost						
Domestic	(12)	170	158	94	(293)	(199)
Foreign	(86)	34	(52)	15	(105)	(90)
Financial liabilities at fair value (excluding debt issued designated at fair value)						
Domestic	(1)	8	7	(1)	2	1
Foreign	0	1,379	1,379	(16)	(295)	(311)
Debt issued designated at fair value						
Domestic	(3)	82	79	44	(31)	13
Foreign	22	832	854	55	(427)	(372)
Other interest-bearing liabilities						
Domestic	0	21	21	1	(2)	(1)
Foreign	12	316	328	(18)	(68)	(86)
Interest expense						
Domestic	(15)	567	552	119	(450)	(331)
Foreign	(74)	4,710	4,636	109	(1,583)	(1,474)
Total interest expense on interest-bearing liabilities						
Swap interest on hedged debt issued and other swaps			805			(157)
Interest expense on off-balance sheet securities and other			(73)			220
Total interest expense			5,920			(1,742)

Deposits

The table below analyzes average deposits and average rates on each deposit category for the years ended 31 December 2022, 2021 and 2020. For the purpose of this disclosure, foreign deposits represent deposits from depositors who are based outside of Switzerland. Deposits by foreign depositors in domestic offices were USD 59,744m as of 31 December 2022 (31 December 2021: USD 77,011m; 31 December 2020: USD 76,167m).

<i>USD m, except where indicated</i>	31.12.22		31.12.21		31.12.20	
	Average deposits	Average rate (%)	Average deposits	Average rate (%)	Average deposits	Average rate (%)
Due to banks						
Domestic						
Demand deposits	908	(0.3)	927	(0.5)	1,037	(0.4)
Time deposits	2,793	0.5	3,026	0.0	1,775	0.4
Total domestic	3,700	0.3	3,953	(0.1)	2,812	0.1
Foreign¹						
Interest-bearing deposits	10,288	0.3	9,313	(0.1)	8,454	0.1
Total due to banks	13,988	0.3	13,266	(0.1)	11,266	0.1
Customer deposits						
Domestic						
Demand deposits	95,866	(0.1)	101,338	(0.2)	90,070	(0.1)
Savings and sweep deposits	109,039	0.0	114,792	0.0	110,328	0.0
Time deposits	8,825	0.2	8,371	(0.4)	17,610	(0.1)
Total domestic	213,730	0.0	224,502	(0.1)	218,008	(0.1)
Foreign¹						
Demand deposits	119,024	0.1	140,906	(0.1)	112,486	0.0
Savings and sweep deposits	121,776	0.5	111,345	0.1	82,806	0.2
Time deposits	64,468	1.8	44,507	0.1	65,104	0.5
Total foreign	305,267	0.6	296,758	0.0	260,397	0.2
Total customer deposits	518,997	0.3	521,260	0.0	478,404	0.1

1 For the purpose of this table, the distinction between foreign and domestic deposits is based on the domicile of the depositor, while foreign and domestic deposits disclosed in previous tables are based on the booking location.

Uninsured deposits

From the combined total of Due to banks and Customer deposits as of 31 December 2022, total estimated uninsured deposits were USD 362bn (31 December 2021: USD 392bn; 31 December 2020: USD 380bn). Uninsured deposits are deposits that are in excess of local deposit insurance or protection scheme limits in the key locations in which UBS operates, calculated based on the respective local regulations, as well as deposits in uninsured accounts. The main deposit insurance schemes applicable to UBS deposits are the Swiss depositor protection scheme in Switzerland (which protects applicable deposits up to a maximum of CHF 100,000 per client and per bank or securities firm), the Compensation Scheme of German Banks, in combination with the Deposit Protection Fund of the Association of German Banks in Germany (which protects applicable deposits up to a maximum of EUR 456m per client) and the Federal Deposit Insurance Corporation (the FDIC) scheme in the Americas (which protects applicable deposits up to a maximum of USD 250,000 per depositor, per insured bank, for each account ownership category).

The table below presents the maturity of estimated uninsured time deposits as of 31 December 2022. Where a depositor holds multiple accounts, which in aggregate are in excess of a deposit insurance or protection limit, the insured amount is first allocated to the account with the shortest time to maturity.

<i>USD m</i>	Uninsured time deposits¹
Within 3 months	93,030
3 to 6 months	10,962
6 to 12 months	7,563
Over 12 months	790
Total uninsured time deposits as of 31 December 2022	112,345

1 Amounts are estimated based on the methodologies defined in each local jurisdiction. As of 31 December 2022, there were no US time deposits subject to the FDIC scheme that were in excess of the FDIC insurance limit.

Investments in debt instruments

The table below presents the carrying amount and weighted average yield of debt instruments presented within Financial assets measured at fair value through other comprehensive income and Other financial assets measured at amortized cost on the balance sheet, by contractual maturity bucket. The yield for each range of maturities is calculated by dividing the annualized interest income by the average balance of the investment per contractual maturity bucket. The maturity information presented does not consider any early redemption features, and debt instruments without fixed maturities are not included.

<i>USD m, except where indicated</i>	Within 1 year		1 to 5 years		5 to 10 years		Over 10 years		Total carrying amount
	Carrying amount	Yield (%)							
Debt instruments measured at fair value through other comprehensive income									
Government bills / bonds	26	0.73							26
Corporate and other	2,093	2.64	119	2.48					2,213
Subtotal as of 31 December 2022	2,120		119						2,239
Debt securities measured at amortized cost									
Asset-backed securities			117	1.97	1,588	2.33	6,735	2.37	8,440
Government bills / bonds	8,584	1.27	6,236	1.97	4,403	1.67	1,837	2.46	21,060
Corporate and other	2,005	0.53	9,662	1.24	3,410	1.33	16	1.95	15,094
Subtotal as of 31 December 2022	10,589		16,015		9,402		8,588		44,594
Total as of 31 December 2022	12,708		16,135		9,402		8,588		46,833

Loan portfolio

The table below provides the maturity profile of UBS's core loan portfolio as of 31 December 2022. The contractual maturity is based on carrying amounts and includes the effect of callable features. For loans due after one year, a breakdown between fixed and adjustable or floating interest rates is also provided.

<i>USD m</i>	31.12.22							
	Within 1 year	1 to 5 years	5 to 15 years	Over 15 years	Total	of which: over 1 year		
						Fixed rate	Adjustable or floating rate	
Private clients with mortgages	15,056	83,223	31,854	26,797	156,930	76,707	65,166	
Real estate financing	19,130	19,146	8,153	40	46,470	17,435	9,904	
Large corporate clients	4,423	6,876	926	1	12,226	2,791	5,012	
SME clients	6,647	4,644	2,612	0	13,903	3,393	3,863	
Lombard	124,695	7,178	414	0	132,287	6,975	617	
Credit cards	1,834	0	0	0	1,834	0	0	
Commodity trade finance	3,158	110	4	0	3,272	4	110	
Other loans and advances to customers	9,000	9,193	2,088	19	20,300	1,533	9,766	
Loans to financial advisors	134	975	1,278	223	2,611	2,476	0	
Total	184,078	131,345	47,328	27,080	389,831	111,315	94,438	

Allowance for credit losses

For the years ended 31 December 2022, 2021 and 2020, the ratio of net charge-offs (i.e., write-offs of expected credit loss allowances to gross carrying amount of the average loans outstanding) during the period was not material for UBS's core loan portfolio, both on an overall basis and on an individual loan category basis. Total write-offs for 31 December 2022 were USD 95m (31 December 2021: USD 137m; 31 December 2020: USD 356m). Refer to the coverage ratio tables in "Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement" in the "Consolidated financial statements" section of this report for the ratio of expected credit loss allowances to total loans outstanding at each period end.

UBS AG consolidated supplemental disclosures required under SEC regulations

A – Introduction

The following pages contain supplemental UBS AG disclosures that are required under SEC regulations. UBS AG’s consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (the IASB) and are denominated in US dollars (USD), which is also the functional currency of: UBS AG’s Head Office; UBS AG London Branch; and UBS AG’s US-based operations.

B – Selected financial data

Selected information

	As of or for the year ended		
	31.12.22	31.12.21	31.12.20
Personnel (full-time equivalents)	47,628	47,067	47,546
Americas	21,819	21,317	21,394
<i>of which: USA</i>	21,032	20,537	20,528
Asia Pacific	8,319	7,993	8,049
Europe, Middle East and Africa (excluding Switzerland)	5,792	5,748	5,797
<i>of which: UK</i>	2,714	2,611	2,596
<i>of which: rest of Europe (excluding Switzerland)</i>	2,831	2,949	3,024
<i>of which: Middle East and Africa</i>	246	189	177
Switzerland	11,698	12,009	12,307
Registered ordinary shares (number)	3,858,408,466	3,858,408,466	3,858,408,466
Treasury shares (number)	0	0	0

Dividends received from investments in subsidiaries and associates

In 2022, UBS AG received dividends of USD 6,465m (2021: USD 6,401m; 2020: USD 3,214m) from its subsidiaries and associates. Dividends disclosed have been translated to US dollars from the functional currency of the entity paying the dividend, using the closing exchange rate of the month the dividend was received.

Balance sheet data

<i>USD m</i>	31.12.22	31.12.21	31.12.20
Assets			
Cash and balances at central banks	169,445	192,817	158,231
Loans and advances to banks	14,671	15,360	15,344
Receivables from securities financing transactions at amortized cost	67,814	75,012	74,210
Cash collateral receivables on derivative instruments	35,033	30,514	32,737
Loans and advances to customers	390,027	398,693	380,977
Other financial assets measured at amortized cost	53,389	26,236	27,219
Total financial assets measured at amortized cost	730,379	738,632	688,717
Financial assets at fair value held for trading	108,034	131,033	125,492
<i>of which: assets pledged as collateral that may be sold or repledged by counterparties</i>	<i>36,742</i>	<i>43,397</i>	<i>47,098</i>
Derivative financial instruments	150,109	118,145	159,618
Brokerage receivables	17,576	21,839	24,659
Financial assets at fair value not held for trading	59,408	59,642	80,038
Total financial assets measured at fair value through profit or loss	335,127	330,659	389,808
Financial assets measured at fair value through other comprehensive income	2,239	8,844	8,258
Investments in associates	1,101	1,243	1,557
Property, equipment and software	11,316	11,712	11,958
Goodwill and intangible assets	6,267	6,378	6,480
Deferred tax assets	9,354	8,839	9,174
Other non-financial assets	9,652	9,836	9,374
Total assets	1,105,436	1,116,145	1,125,327
Liabilities			
Amounts due to banks	11,596	13,101	11,050
Payables from securities financing transactions at amortized cost	4,202	5,533	6,321
Cash collateral payables on derivative instruments	36,436	31,801	37,313
Customer deposits	527,171	544,834	527,929
Funding from UBS Group AG measured at amortized cost	56,147	57,295	53,979
Debt issued measured at amortized cost	59,499	82,432	85,351
Other financial liabilities measured at amortized cost	10,391	9,765	10,421
Total financial liabilities measured at amortized cost	705,442	744,762	732,364
Financial liabilities at fair value held for trading	29,515	31,688	33,595
Derivative financial instruments	154,906	121,309	161,102
Brokerage payables designated at fair value	45,085	44,045	38,742
Debt issued designated at fair value	71,842	71,460	59,868
Other financial liabilities designated at fair value	32,033	32,414	31,773
Total financial liabilities measured at fair value through profit or loss	333,382	300,916	325,080
Provisions	3,183	3,452	2,791
Other non-financial liabilities	6,489	8,572	7,018
Total liabilities	1,048,496	1,057,702	1,067,254
Equity attributable to shareholders	56,598	58,102	57,754
Equity attributable to non-controlling interests	342	340	319
Total equity	56,940	58,442	58,073
Total liabilities and equity	1,105,436	1,116,145	1,125,327

C – Information about the company

Property, plant and equipment

As of 31 December 2022, UBS AG operated in about 663 business and banking locations worldwide, of which approximately 33% were in Switzerland, 49% in the Americas, 9% in the rest of Europe, the Middle East and Africa, and 9% in Asia Pacific. Of the business and banking locations in Switzerland, 22% were owned directly by UBS AG, with the remainder, along with most of UBS AG's offices outside Switzerland, being held under commercial leases. These premises are subject to continuous maintenance and upgrading and are considered suitable and adequate for current and anticipated operations.

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Selected statistical information

The tables below set forth selected statistical information regarding UBS AG's banking operations extracted from its financial statements. Unless otherwise indicated, average balances for the years ended 31 December 2022, 31 December 2021 and 31 December 2020 are calculated from monthly data. Unless otherwise indicated, the distinction between domestic (Swiss) and foreign (non-Swiss) is generally based on the booking location.

Average balances and interest rates

The tables below set forth average interest-earning assets and average interest-bearing liabilities, along with the average yield, for 2022, 2021 and 2020. Refer to "Note 3 Net interest income and other net income from financial instruments measured at fair value through profit or loss" in the "Consolidated financial statements" section of this report for more information about interest income and interest expense.

For the year ended	31.12.22			31.12.21			31.12.20		
	Average balance	Interest income	Average yield (%)	Average balance	Interest income	Average yield (%)	Average balance	Interest income	Average yield (%)
USD m, except where indicated									
Assets									
Balances at central banks									
Domestic	99,777	92	0.1	98,804	(105)	(0.1)	90,234	(112)	(0.1)
Foreign	88,267	595	0.7	71,529	(31)	0.0	51,611	7	0.0
Loans and advances to banks									
Domestic	2,966	50	1.7	3,158	40	1.3	2,930	43	1.5
Foreign	12,205	8	0.1	12,961	12	0.1	12,001	31	0.3
Receivables from securities financing transactions measured at amortized cost ¹									
Domestic	6,431	30	0.5	9,435	(28)	(0.3)	4,746	8	0.2
Foreign	70,942	1,105	1.6	79,297	234	0.3	92,098	551	0.6
Loans and advances to customers									
Domestic	225,540	3,212	1.4	229,794	3,214	1.4	212,383	3,020	1.4
Foreign	160,496	4,824	3.0	160,869	2,698	1.7	138,485	3,136	2.3
Financial assets at fair value ^{1,2}									
Domestic	5,922	50	0.8	10,023	11	0.1	12,459	40	0.3
Foreign	151,672	2,113	1.4	169,368	1,203	0.7	192,381	1,826	0.9
Other interest-earning assets									
Domestic	8,226	125	1.5	7,477	121	1.6	8,064	136	1.7
Foreign	63,108	858	1.4	47,042	298	0.6	45,443	386	0.8
Total interest-earning assets³									
Net interest income on swaps		1,812			1,558			1,140	
Interest income on off-balance sheet securities and other		677			472			386	
Interest income and average interest-earning assets									
	895,553	15,553 ⁴	1.7	899,757	9,695 ⁴	1.1	862,835	10,597 ⁴	1.2
Non-interest-earning assets ⁵	297,691			296,300			308,528		
Total average assets	1,193,244			1,196,057			1,171,363		

- Reverse repurchase agreements are presented on a gross basis and therefore, for the purpose of this disclosure, do not reflect the effect of netting permitted under IFRS.
- Includes financial assets at fair value held for trading, financial assets at fair value not held for trading, financial assets at fair value through other comprehensive income and brokerage receivables.
- Non-taxable positions and amounts were not material for the years presented.
- For the purpose of this disclosure, negative interest income on assets is presented as a reduction to interest income, while in the consolidated income statement negative interest income on assets is presented as interest expense. Refer to Note 3 Net interest income and other net income from financial instruments measured at fair value through profit or loss in the "Consolidated financial statements" section of this report for more information.
- Mainly includes derivative financial instruments, equity instruments at fair value held for trading and financial assets for unit-linked investment contracts.

Average balances and interest rates (continued)

For the year ended	31.12.22			31.12.21			31.12.20		
	Average balance	Interest expense	Average interest rate (%)	Average balance	Interest expense	Average interest rate (%)	Average balance	Interest expense	Average interest rate (%)
<i>USD m, except where indicated</i>									
Liabilities and equity									
Amount due to banks									
Domestic	10,733	3	0.0	10,369	(32)	(0.3)	8,097	(9)	(0.1)
Foreign	3,255	44	1.3	2,897	18	0.6	3,169	26	0.8
Payables from securities financing transactions measured at amortized cost ¹									
Domestic	3,357	40	1.2	4,786	1	0.0	3,888	6	0.2
Foreign	13,351	289	2.2	14,161	209	1.5	18,793	174	0.9
Customer deposits									
Domestic	275,270	(61)	0.0	293,028	(281)	(0.1)	266,614	(160)	(0.1)
<i>of which: demand deposits</i>	149,357	(141)	(0.1)	162,016	(273)	(0.2)	138,949	(164)	(0.1)
<i>of which: savings and sweep deposits</i>	119,685	6	0.0	126,290	4	0.0	121,793	3	0.0
<i>of which: time deposits</i>	6,227	74	1.2	4,721	(12)	(0.3)	5,873	1	0.0
Foreign	246,072	1,820	0.7	232,165	107	0.0	214,783	551	0.3
<i>of which: demand deposits</i>	66,987	120	0.2	82,226	(31)	0.0	64,955	(6)	0.0
<i>of which: savings and sweep deposits</i>	111,130	578	0.5	99,847	81	0.1	71,341	194	0.3
<i>of which: time deposits</i>	67,956	1,121	1.7	50,092	58	0.1	78,488	363	0.5
Funding from UBS Group AG									
Domestic	56,884	1,875	3.3	56,008	1,699	3.0	51,005	1,740	3.4
Commercial paper									
Domestic	1	0	0.0	292	0	0.0	130	0	0.0
Foreign	20,452	256	1.3	24,461	33	0.1	17,098	120	0.7
Other short-term debt issued measured at amortized cost									
Domestic	366	4	1.2	13	0	(0.1)	10	0	0.0
Foreign	11,927	124	1.0	18,473	37	0.2	16,989	147	0.9
Long-term debt issued measured at amortized cost									
Domestic	11,538	184	1.6	12,352	192	1.6	14,054	323	2.3
Foreign	22,929	439	1.9	27,820	491	1.8	27,100	581	2.1
Financial liabilities at fair value (excluding debt issued designated at fair value) ^{1,2}									
Domestic	289	11	3.7	421	3	0.8	701	2	0.3
Foreign	141,526	1,476	1.0	139,374	81	0.1	146,306	354	0.2
Debt issued designated at fair value									
Domestic	7,400	43	0.6	7,806	(20)	(0.3)	3,469	6	0.2
Foreign	63,470	1,283	2.0	60,388	429	0.7	56,442	801	1.4
Other interest-bearing liabilities									
Domestic	2,872	14	0.5	2,884	(7)	(0.2)	3,333	(6)	(0.2)
Foreign	38,838	429	1.1	34,833	101	0.3	38,516	187	0.5
Total interest-bearing liabilities	930,531	8,273	0.9	942,531	3,060	0.3	890,498	4,841	0.5
Swap interest on hedged debt instruments and other swaps		40			(765)			(608)	
Interest expense on off-balance sheet securities and other		723			797			576	
Interest expense and average interest-bearing liabilities	930,531	9,035³	1.0	942,531	3,091³	0.3	890,498	4,809³	0.5
Non-interest-bearing liabilities ⁴	206,337			196,273			224,468		
Total liabilities	1,136,868			1,138,804			1,114,966		
Total equity	56,376			57,254			56,397		
Total average liabilities and equity	1,193,244			1,196,057			1,171,363		
Net interest income		6,517			6,604			5,788	
Net yield on interest-earning assets			0.7			0.7			0.7

1 Repurchase agreements are presented on a gross basis and therefore, for the purpose of this disclosure, do not reflect the effect of netting permitted under IFRS.

2 Includes financial liabilities at fair value held for trading, other financial liabilities designated at fair value and brokerage payables designated at fair value.

- 3 For the purpose of this disclosure, negative interest expense on liabilities is presented as a reduction to interest expense, while in the consolidated income statement negative interest income on liabilities is presented as interest income. Refer to Note 3 Net interest income and other net income from financial instruments measured at fair value through profit or loss in the “Consolidated financial statements” section of this report for more information.
- 4 Mainly includes derivative financial instruments, equity instruments at fair value held for trading and financial liabilities related to unit-linked investment contracts.

The percentage of total average interest-earning assets attributable to foreign activities was 61% for 2022 (2021: 60%; 2020: 62%). The percentage of total average interest-bearing liabilities attributable to foreign activities was 60% for 2022 (2021: 59%; 2020: 61%). All assets and liabilities are translated into US dollars at uniform month-end rates. Interest income and expense are translated at monthly average rates.

Average rates earned and paid on assets and liabilities can change from period to period based on the changes in interest rates in general, but are also affected by changes in the currency mix included in the assets and liabilities. Tax-exempt income is not recorded on a tax-equivalent basis. For all three years presented, tax-exempt income is considered to be insignificant and the effect from such income is therefore negligible.

Analysis of changes in interest income and expense

The tables below provide information by categories of interest-earning assets and interest-bearing liabilities, about the changes in interest income and expense due to changes in volume and interest rates for the year ended 31 December 2022 compared with the year ended 31 December 2021, and for the year ended 31 December 2021 compared with the year ended 31 December 2020. The change in average volume represents the change in the current average balance compared to the average balance from the prior year with respect to the average rate of the prior year. The change in average rate represents the difference between the net change in interest income and expense and the change in average volume.

<i>USD m</i>	2022 compared with 2021			2021 compared with 2020		
	Increase / (decrease) due to changes in		Net change	Increase / (decrease) due to changes in		Net change
	Average volume	Average interest rate		Average volume	Average interest rate	
Interest income from interest-earning assets						
Balances at central banks						
Domestic	(1)	198	197	(9)	16	7
Foreign	(7)	633	626	0	(38)	(38)
Loans and advances to banks						
Domestic	(2)	12	10	3	(6)	(3)
Foreign	(1)	(3)	(4)	3	(23)	(20)
Receivables from securities financing transactions measured at amortized cost						
Domestic	9	49	58	9	(44)	(35)
Foreign	(25)	896	871	(77)	(240)	(317)
Loans and advances to customers						
Domestic	(59)	58	(1)	244	(50)	194
Foreign	(6)	2,133	2,127	515	(954)	(439)
Financial assets at fair value						
Domestic	(5)	44	39	(7)	(22)	(29)
Foreign	(126)	1,036	910	(207)	(416)	(623)
Other interest-earning assets						
Domestic	12	(8)	4	(10)	(5)	(15)
Foreign	102	458	560	13	(101)	(88)
Interest income						
Domestic	(46)	354	308	230	(111)	119
Foreign	(63)	5,154	5,091	247	(1,772)	(1,525)
Total interest income from interest-earning assets						
Net interest income on swaps			254			418
Interest income on off-balance sheet securities and other			205			86
Total interest income			5,858			(902)

Analysis of changes in interest income and expense (continued)

<i>USD m</i>	2022 compared with 2021			2021 compared with 2020		
	Increase / (decrease) due to changes in			Increase / (decrease) due to changes in		
	Average volume	Average interest rate	Net change	Average volume	Average interest rate	Net change
Interest expense on interest-bearing liabilities						
Amount due to banks						
Domestic	(1)	36	35	(2)	(21)	(23)
Foreign	2	23	25	(2)	(5)	(7)
Payables from securities financing transactions measured at amortized cost						
Domestic	0	39	39	2	(7)	(5)
Foreign	(12)	92	80	(42)	76	34
Customer deposits						
Domestic	17	203	220	(23)	(98)	(121)
<i>of which: demand deposits</i>	21	111	132	(23)	(86)	(109)
<i>of which: savings and sweep deposits</i>	0	2	2	0	1	1
<i>of which: time deposits</i>	(4)	90	86	0	(13)	(13)
Foreign	6	1,707	1,713	52	(497)	(445)
<i>of which: demand deposits</i>	6	145	151	0	(26)	(26)
<i>of which: savings and sweep deposits</i>	9	488	497	86	(200)	(114)
<i>of which: time deposits</i>	21	1,043	1,064	(142)	(163)	(305)
Funding from UBS Group AG						
Domestic	27	149	176	170	(211)	(41)
Commercial paper						
Domestic	0	0	0	0	0	0
Foreign	(5)	228	223	52	(138)	(86)
Other short-term debt issued measured at amortized cost						
Domestic	0	5	5	0	0	0
Foreign	(13)	100	87	13	(123)	(110)
Long-term debt issued measured at amortized cost						
Domestic	(13)	5	(8)	(39)	(92)	(131)
Foreign	(86)	34	(52)	15	(105)	(90)
Financial liabilities at fair value (excluding debt issued designated at fair value)						
Domestic	(1)	8	7	(1)	2	1
Foreign	1	1,395	1,396	(14)	(259)	(273)
Debt issued designated at fair value						
Domestic	1	61	62	9	(34)	(25)
Foreign	22	832	854	55	(426)	(371)
Other interest-bearing liabilities						
Domestic	0	21	21	1	(2)	(1)
Foreign	12	316	328	(18)	(68)	(86)
Interest expense						
Domestic	30	529	559	117	(463)	(346)
Foreign	(73)	4,727	4,654	111	(1,546)	(1,435)
Total interest expense on interest-bearing liabilities						
Swap interest on hedged debt instruments and other swaps			805			(157)
Interest expense on off-balance sheet securities and other			(74)			221
Total interest expense			5,944			(1,718)

Deposits

The table below analyzes average deposits and average rates on each deposit category for the years ended 31 December 2022, 2021 and 2020. For the purpose of this disclosure, foreign deposits represent deposits from depositors who are based outside of Switzerland. Deposits by foreign depositors in domestic offices were USD 59,897m as of 31 December 2022 (31 December 2021: USD 77,070m; 31 December 2020: USD 76,200m).

<i>USD m, except where indicated</i>	31.12.22		31.12.21		31.12.20	
	Average deposits	Average rate (%)	Average deposits	Average rate (%)	Average deposits	Average rate (%)
Due to banks						
Domestic						
Demand deposits	908	(0.3)	927	(0.5)	1,037	(0.4)
Time deposits	2,793	0.5	3,026	0.0	1,775	0.4
Total domestic	3,700	0.3	3,953	(0.1)	2,812	0.1
Foreign¹						
Interest-bearing deposits	10,288	0.3	9,313	(0.1)	8,454	0.1
Total due to banks	13,988	0.3	13,266	(0.1)	11,266	0.1
Customer deposits						
Domestic						
Demand deposits	97,217	(0.1)	103,267	(0.2)	91,404	(0.1)
Savings and sweep deposits	109,039	0.0	114,792	0.0	110,328	0.0
Time deposits	9,715	0.4	10,306	(0.2)	19,256	0.0
Total domestic	215,971	0.0	228,366	(0.1)	220,988	0.0
Foreign¹						
Demand deposits	119,127	0.1	140,975	(0.1)	112,499	0.0
Savings and sweep deposits	121,776	0.5	111,345	0.1	82,806	0.2
Time deposits	64,468	1.8	44,507	0.1	65,104	0.5
Total foreign	305,370	0.6	296,826	0.0	260,410	0.2
Total customer deposits	521,342	0.3	525,192	0.0	481,398	0.1

1 For the purpose of this table, the distinction between foreign and domestic deposits is based on the domicile of the depositor, while foreign and domestic deposits disclosed in previous tables are based on the booking location.

Uninsured deposits

From the combined total of Due to banks and Customer deposits as of 31 December 2022, total estimated uninsured deposits were USD 365bn (31 December 2021: USD 395bn; 31 December 2020: USD 383bn). Uninsured deposits are deposits that are in excess of local deposit insurance or protection scheme limits in the key locations in which UBS AG operates, calculated based on the respective local regulations, as well as deposits in uninsured accounts. The main deposit insurance schemes applicable to UBS AG deposits are the Swiss depositor protection scheme in Switzerland (which protects applicable deposits up to a maximum of CHF 100,000 per client and per bank or securities firm), the Compensation Scheme of German Banks, in combination with the Deposit Protection Fund of the Association of German Banks in Germany (which protects applicable deposits up to a maximum of EUR 456m per client) and the Federal Deposit Insurance Corporation (the FDIC) scheme in the Americas (which protects applicable deposits up to a maximum of USD 250,000 per depositor, per insured bank, for each account ownership category).

The table below presents the maturity of estimated uninsured time deposits as of 31 December 2022. Where a depositor

holds multiple accounts, which in aggregate are in excess of a deposit insurance or protection limit, the insured amount is first allocated to the account with the shortest time to maturity.

<i>USD m</i>	Uninsured time deposits¹
Within 3 months	93,308
3 to 6 months	10,963
6 to 12 months	7,564
Over 12 months	1,148
Total uninsured time deposits as of 31 December 2022	112,983

1 Amounts are estimated based on the methodologies defined in each local jurisdiction. As of 31 December 2022, there were no US time deposits subject to the FDIC scheme that were in excess of the FDIC insurance limit.

Investments in debt instruments

The table below presents the carrying amount and weighted average yield of debt instruments presented within Financial assets measured at fair value through other comprehensive income and Other financial assets measured at amortized cost on the balance sheet by contractual maturity bucket. The yield for each range of maturities is calculated by dividing the annualized interest income by the average balance of the investment per contractual maturity bucket. The maturity information presented does not consider any early redemption features and debt instruments without fixed maturities are not included.

USD m, except where indicated	Within 1 year		1 to 5 years		5 to 10 years		Over 10 years		Total carrying amount
	Carrying amount	Yield (%)							
Debt instruments measured at fair value through other comprehensive income									
Government bills / bonds	26	0.73							26
Corporate and other	2,093	2.64	119	2.48					2,213
Subtotal as of 31 December 2022	2,120		119						2,239
Debt securities measured at amortized cost									
Asset-backed securities			117	1.97	1,588	2.33	6,735	2.37	8,440
Government bills / bonds	8,584	1.27	6,236	1.97	4,403	1.67	1,837	2.46	21,060
Corporate and other	2,005	0.53	9,662	1.24	3,410	1.33	16	1.95	15,094
Subtotal as of 31 December 2022	10,589		16,015		9,402		8,588		44,594
Total as of 31 December 2022	12,708		16,135		9,402		8,588		46,833

Loan portfolio

The table below provides the maturity profile of UBS AG's core loan portfolio as of 31 December 2022. The contractual maturity is based on carrying amounts and includes the effect of callable features. For loans due after one year, a breakdown between fixed and adjustable or floating interest rates is also provided.

USD m	31.12.22								
	Within 1 year	1 to 5 years	5 to 15 years	Over 15 years	Total	of which: over 1 year			
						Fixed rate	Adjustable or floating rate		
Private clients with mortgages	15,056	83,223	31,854	26,797	156,930	76,707	65,166		
Real estate financing	19,130	19,146	8,153	40	46,470	17,435	9,904		
Large corporate clients	4,423	6,876	926	1	12,226	2,791	5,012		
SME clients	6,647	4,644	2,612	0	13,903	3,393	3,863		
Lombard	124,695	7,178	414	0	132,287	6,975	617		
Credit cards	1,834	0	0	0	1,834	0	0		
Commodity trade finance	3,158	110	4	0	3,272	4	110		
Other loans and advances to customers	11,570	9,382	2,135	19	23,107	1,609	9,927		
Loans to financial advisors	134	975	1,278	223	2,611	2,476	0		
Total	186,648	131,535	47,376	27,080	392,638	111,391	94,600		

Allowance for credit losses

For the years ended 31 December 2022, 2021 and 2020, the ratio of net charge-offs (i.e., write-offs of expected credit loss allowances to gross carrying amount of the average loans outstanding) during the period was not material for UBS AG's core loan portfolio, both on an overall basis and on an individual loan category basis. Total write-offs for 31 December 2022 were USD 95m (31 December 2021: USD 137m, 31 December 2020: USD 356m). Refer to the coverage ratio tables in "Note 9 Financial assets at amortized cost and other positions in scope of expected credit loss measurement" in the "Consolidated financial statements" section of this report for the ratio of expected credit loss allowances to total loans outstanding at each period end.

Appendix

Alternative performance measures

Alternative performance measures

An alternative performance measure (an APM) is a financial measure of historical or future financial performance, financial position or cash flows other than a financial measure defined or specified in the applicable recognized accounting standards or in other applicable regulations. We report a number of APMs in the discussion of the financial and operating performance of the Group, our business divisions and our Group Functions. We use APMs to provide a more complete picture of our operating performance and to reflect management's view of the fundamental drivers of our business results. A definition of each APM, the method used to calculate it and the information content are presented in alphabetical order in the table below. Our APMs may qualify as non-GAAP measures as defined by US Securities and Exchange Commission (SEC) regulations.

<u>APM label</u>	<u>Calculation</u>	<u>Information content</u>
Active Digital Banking clients in Corporate & Institutional Clients (%) – Personal & Corporate Banking	Calculated as the average number of active clients for each month in the relevant period divided by the average number of total clients. "Clients" refers to the number of unique business relationships or legal entities operated by Corporate & Institutional Clients, excluding clients that do not have an account, mono-product clients and clients that have defaulted on loans or credit facilities. At the end of each month, any client that has logged on at least once in that month is determined to be "active" (a log-in time stamp is allocated to all business relationship numbers or per legal entity in a digital banking contract).	This measure provides information about the proportion of active Digital Banking clients in the total number of UBS clients (within the aforementioned meaning) which are serviced by Corporate & Institutional Clients.
Active Digital Banking clients in Personal Banking (%) – Personal & Corporate Banking	Calculated as the average number of active clients for each month in the relevant period divided by the average number of total clients. "Clients" refers to the number of unique business relationships operated by Personal Banking, excluding persons under the age of 15, clients who do not have a private account, clients domiciled outside Switzerland and clients who have defaulted on loans or credit facilities. At the end of each month, any client that has logged on at least once in that month is determined to be "active" (a log-in time stamp is allocated to all business relationship numbers in a digital banking contract).	This measure provides information about the proportion of active Digital Banking clients in the total number of UBS clients (within the aforementioned meaning) who are serviced by Personal Banking.
Active Mobile Banking clients in Personal Banking (%) – Personal & Corporate Banking	Calculated as the average number of active clients for each month in the relevant period divided by the average number of total clients. "Clients" refers to the number of unique business relationships operated by Personal Banking, excluding persons under the age of 15, clients who do not have a private account, clients domiciled outside Switzerland and clients who have defaulted on loans or credit facilities. At the end of each month, any client that has logged on via the mobile app at least once in that month is determined to be "active" (a log-in time stamp is allocated to all business relationship numbers in a digital banking contract).	This measure provides information about the proportion of active Mobile Banking clients in the total number of UBS clients (within the aforementioned meaning) who are serviced by Personal Banking.
Cost / income ratio (%)	Calculated as operating expenses divided by total revenues.	This measure provides information about the efficiency of the business by comparing operating expenses with gross income.

Fee and trading income for Corporate & Institutional Clients (USD and CHF)
– Personal & Corporate Banking

Calculated as the total of recurring net fee and transaction-based income for Corporate & Institutional Clients.

This measure provides information about the amount of fee and trading income for Corporate & Institutional Clients.

APM label	Calculation	Information content
Fee-generating assets (USD) – Global Wealth Management	Calculated as the sum of discretionary and nondiscretionary wealth management portfolios (mandate volume) and assets where generated revenues are predominantly of a recurring nature, i.e., mainly investment, mutual, hedge and private-market funds where we have a distribution agreement, including client commitments into closed-ended private-market funds from the date that recurring fees are charged. Assets related to our Global Financial Intermediaries business are excluded, as are assets of sanctioned clients.	This measure provides information about the volume of invested assets that create a revenue stream, whether as a result of the nature of the contractual relationship with clients or through the fee structure of the asset. An increase in the level of fee-generating assets results in an increase in the associated revenue stream. Assets of sanctioned clients are excluded from fee-generating assets.
Fee-generating asset margin (bps) – Global Wealth Management	Calculated as revenues from fee-generating assets (a portion of which is included in recurring fee income and a portion of which is included in transaction- based income, annualized as applicable) divided by average fee-generating assets for the relevant mandate fee billing period. For the US, fees have been billed on daily balances since the fourth quarter of 2020 and average fee-generating assets are calculated as the average of the monthly average balances. Prior to the fourth quarter of 2020, billing was based on prior quarter-end balances, and the average fee-generating assets were thus the prior quarter-end balance. For balances outside of the US, billing is based on prior month-end balances and average fee-generating assets are thus the average of the prior month-end balances.	This measure provides information about the revenues from fee-generating assets in relation to their average volume during the relevant mandate fee billing period.
Gross margin on invested assets (bps) – Asset Management	Calculated as total revenues (annualized as applicable) divided by average invested assets.	This measure provides information about the total revenues of the business in relation to invested assets.
Impaired loan portfolio as a percentage of total loan portfolio, gross (%) – Global Wealth Management, Personal & Corporate Banking	Calculated as impaired loan portfolio divided by total gross loan portfolio.	This measure provides information about the proportion of impaired loan portfolio in the total gross loan portfolio.
Invested assets (USD and CHF) – Global Wealth Management, Personal & Corporate Banking, Asset Management	Calculated as the sum of managed fund assets, managed institutional assets, discretionary and advisory wealth management portfolios, fiduciary deposits, time deposits, savings accounts, and wealth management securities or brokerage accounts.	This measure provides information about the volume of client assets managed by or deposited with UBS for investment purposes.
Investment products for Personal Banking (USD and CHF) – Personal & Corporate Banking	Calculated as the sum of investment funds (including UBS Vitainvest third-pillar pension funds), mandates and third-party life insurance operated in Personal Banking.	This measure provides information about the volume of investment funds (including UBS Vitainvest third- pillar pension funds), mandates and third-party life insurance operated in Personal Banking.
Net interest margin (bps) – Personal & Corporate Banking	Calculated as net interest income (annualized as applicable) divided by average loans.	This measure provides information about the profitability of the business by calculating the difference between the price charged for lending and the cost of funding, relative to loan value.

<p>Net new fee-generating assets (USD) – Global Wealth Management</p>	<p>Calculated as the sum of the net amount of fee-generating asset inflows and outflows, including dividend and interest inflows into mandates and outflows from mandate fees paid by clients during a specific period. Excluded from the calculation are the effects on fee-generating assets of strategic decisions by UBS to exit markets or services.</p>	<p>This measure provides information about the development of fee-generating assets during a specific period as a result of net flows, excluding movements due to market performance and foreign exchange translation, as well as the effects on fee-generating assets of strategic decisions by UBS to exit markets or services.</p>
<p>Net new fee-generating asset growth rate (%) – Global Wealth Management</p>	<p>Calculated as the sum of the net amount of fee-generating asset inflows and outflows recorded during a specific period (annualized as applicable) divided by total fee-generating assets at the beginning of the period.</p>	<p>This measure provides information about the growth of fee-generating assets during a specific period as a result of net new fee-generating asset flows.</p>
<p>Net new investment products for Personal Banking (USD and CHF) – Personal & Corporate Banking</p>	<p>Calculated as the sum of the net amount of inflows and outflows of investment products during a specific period.</p>	<p>This measure provides information about the development of investment products during a specific period as a result of net new investment product flows.</p>

APM label	Calculation	Information content
Net new money (USD) – Global Wealth Management, Asset Management	Calculated as the sum of the net amount of inflows and outflows of invested assets (as defined in UBS policy) recorded during a specific period. Excluded from the calculation are the effects on invested assets of strategic decisions by UBS to exit markets or services. Net new money for Global Wealth Management is disclosed on an annual basis. Net new money is not measured for Personal & Corporate Banking.	This measure provides information about the development of invested assets during a specific period as a result of net new money flows and excludes movements due to market performance, foreign exchange translation, dividends, interest and fees, as well as the effects on invested assets of strategic decisions by UBS to exit markets or services.
Net profit growth (%)	Calculated as the change in net profit attributable to shareholders from continuing operations between current and comparison periods divided by net profit attributable to shareholders from continuing operations of the comparison period.	This measure provides information about profit growth since the comparison period.
Pre-tax profit growth (%)	Calculated as the change in net profit before tax attributable to shareholders from continuing operations between current and comparison periods divided by net profit before tax attributable to shareholders from continuing operations of the comparison period.	This measure provides information about pre-tax profit growth since the comparison period.
Recurring net fee income (USD and CHF) – Global Wealth Management, Personal & Corporate Banking	Calculated as the total of fees for services provided on an ongoing basis, such as portfolio management fees, asset-based investment fund fees and custody fees, which are generated on client assets, and administrative fees for accounts.	This measure provides information about the amount of recurring net fee income.
Return on attributed equity (%)	Calculated as annualized business division operating profit before tax divided by average attributed equity.	This measure provides information about the profitability of the business divisions in relation to attributed equity.
Return on common equity tier 1 capital (%)	Calculated as annualized net profit attributable to shareholders divided by average common equity tier 1 capital.	This measure provides information about the profitability of the business in relation to common equity tier 1 capital.
Return on equity (%)	Calculated as annualized net profit attributable to shareholders divided by average equity attributable to shareholders.	This measure provides information about the profitability of the business in relation to equity.
Return on leverage ratio denominator, gross (%)	Calculated as annualized total revenues divided by average leverage ratio denominator.	This measure provides information about the revenues of the business in relation to the leverage ratio denominator.
Return on tangible equity (%)	Calculated as annualized net profit attributable to shareholders divided by average equity attributable to shareholders less average goodwill and intangible assets.	This measure provides information about the profitability of the business in relation to tangible equity.
Tangible book value per share (USD)	Calculated as equity attributable to shareholders less goodwill and intangible assets divided by the number of shares outstanding.	This measure provides information about tangible net assets on a per-share basis.
Total book value per share (USD)	Calculated as equity attributable to shareholders divided by the number of shares outstanding.	This measure provides information about net assets on a per-share basis.

Transaction-based income (USD and CHF)
– Global Wealth Management, Personal & Corporate Banking

Calculated as the total of the non-recurring portion of net fee and commission income, mainly composed of brokerage and transaction-based investment fund fees, and credit card fees, as well as fees for payment and foreign exchange transactions, together with other net income from financial instruments measured at fair value through profit or loss.

This measure provides information about the amount of the non-recurring portion of net fee and commission income, together with other net income from financial instruments measured at fair value through profit or loss.

Abbreviations frequently used in our financial reports

A		CRM	credit risk mitigation (credit risk) or comprehensive risk measure (market risk)	FSB	Financial Stability Board
ABS	asset-backed securities			FTA	Swiss Federal Tax Administration
AG	Aktiengesellschaft			FVA	funding valuation adjustment
AGM	Annual General Meeting of shareholders	CST	combined stress test	FVOCI	fair value through other comprehensive income
A-IRB	advanced internal ratings- based	CUSIP	Committee on Uniform Security Identification Procedures	FVTPL	fair value through profit loss
AIV	alternative investment vehicle	CVA	credit valuation adjustment	FX	foreign exchange
ALCO	Asset and Liability Committee				
AMA	advanced measurement approach	D		G	
AML	anti-money laundering	DBO	defined benefit obligation	GAAP	generally accepted accounting principles
AoA	Articles of Association	DCCP	Deferred Contingent Capital Plan	GBP	pound sterling
APM	alternative performance measure	DE&I	diversity, equity and inclusion	GCRG	Group Compliance, Regulatory & Governance
ARR	alternative reference rate	DFAST	Dodd–Frank act stress test	GDP	gross domestic product
ARS	auction rate securities	DM	discount margin	GEB	Group Executive Board
ASF	available stable funding	DOJ	US Department of Justice	GHG	greenhouse gas
AT1	additional tier 1	DTA	deferred tax asset	GIA	Group Internal Audit
AuM	assets under management	DVA	debit valuation adjustment	GRI	Global Reporting Initiative
				G-SIB	global systemically important bank
B		E		H	
BCBS	Basel Committee on Banking Supervision	EAD	exposure at default	HQLA	high-quality liquid assets
BIS	Bank for International Settlements	EB	Executive Board		
BoD	Board of Directors	EC	European Commission		
		ECB	European Central Bank	I	
C		ECL	expected credit loss	IAS	International Accounting Standards
CAO	Capital Adequacy Ordinance	EGM	Extraordinary General Meeting of shareholders	IASB	International Accounting Standards Board
CCAR	Comprehensive Capital Analysis and Review	EIR	effective interest rate	IBOR	interbank offered rate
CCF	credit conversion factor	EL	expected loss	IFRIC	International Financial Reporting Interpretations Committee
CCP	central counterparty	EMEA	Europe, Middle East and Africa	IFRS	International Financial Reporting Standards
CCR	counterparty credit risk	EOP	Equity Ownership Plan	IRB	internal ratings-based
CCRC	Corporate Culture and Responsibility Committee	EPS	earnings per share	IRRBB	interest rate risk in the banking book
CDS	credit default swap	ESG	environmental, social and governance	ISDA	International Swaps and Derivatives Association
CEA	Commodity Exchange Act	ESR	environmental and social risk	ISIN	International Securities Identification Number
CEO	Chief Executive Officer	ETD	exchange-traded derivatives		
CET1	common equity tier 1	ETF	exchange-traded fund		
CFO	Chief Financial Officer	EU	European Union		
CGU	cash-generating unit	EUR	euro		
CHF	Swiss franc	EURIBOR	Euro Interbank Offered Rate		
CIO	Chief Investment Office	EVE	economic value of equity		
C&ORC	Compliance & Operational Risk Control	EY	Ernst & Young Ltd		
		F			
		FA	financial advisor		
		FCA	UK Financial Conduct Authority		
		FDIC	Federal Deposit Insurance Corporation		
		FINMA	Swiss Financial Market Supervisory Authority		
		FMIA	Swiss Financial Market Infrastructure Act		

Abbreviations frequently used in our financial reports (continued)

K		R		T	
KRT	Key Risk Taker	RBC	risk-based capital	TBTF	too big to fail
L		RbM	risk-based monitoring	TCFD	Task Force on Climate- related Financial Disclosures
LAS	liquidity-adjusted stress	REIT	real estate investment trust	TIBOR	Tokyo Interbank Offered Rate
LCR	liquidity coverage ratio	RMBS	residential mortgage- backed securities	TLAC	total loss-absorbing capacity through the cycle
LGD	loss given default	RniV	risks not in VaR	U	
LIBOR	London Interbank Offered Rate	RoCET1	return on CET1 capital	USD	US dollar
LLC	limited liability company	RoU	right-of-use	V	
LoD	lines of defense	rTSR	relative total shareholder return	VaR	value-at-risk
LRD	leverage ratio denominator	RWA	risk-weighted assets	VAT	value added tax
LTIP	Long-Term Incentive Plan	S			
LTV	loan-to-value	SA	standardized approach or société anonyme		
M		SA-CCR	standardized approach for counterparty credit risk		
M&A	mergers and acquisitions	SAR	Special Administrative Region of the People's Republic of China		
MRT	Material Risk Taker	SDG	Sustainable Development Goal		
N		SEC	US Securities and Exchange Commission		
NII	net interest income	SFT	securities financing transaction		
NSFR	net stable funding ratio	SI	sustainable investing or sustainable investment		
NYSE	New York Stock Exchange	SIBOR	Singapore Interbank Offered Rate		
O		SICR	significant increase in credit risk		
OCA	own credit adjustment	SIX	SIX Swiss Exchange		
OCI	other comprehensive income	SME	small and medium-sized entities		
OECD	Organisation for Economic Co-operation and Development	SMF	Senior Management Function		
OTC	over-the-counter	SNB	Swiss National Bank		
P		SOR	Singapore Swap Offer Rate		
PD	probability of default	SPPI	solely payments of principal and interest		
PIT	point in time	SRB	systemically relevant bank		
P&L	profit or loss	SRM	specific risk measure		
POCI	purchased or originated credit-impaired	SVaR	stressed value-at-risk		
Q					
QCCP	Qualifying central counterparty				

This is a general list of the abbreviations frequently used in our financial reporting. Not all of the listed abbreviations may appear in this particular report.

Information sources

Reporting publications

Annual publications

Annual Report: Published in English, this single-volume report provides descriptions of: our Group strategy and performance; the strategy and performance of the business divisions and Group Functions; risk, treasury and capital management; corporate governance, corporate responsibility and our compensation framework, including information about compensation for the Board of Directors and the Group Executive Board members; and financial information, including the financial statements.

“Auszug aus dem Geschäftsbericht”: This publication provides a German translation of selected sections of our Annual Report.

Compensation Report: This report discusses our compensation framework and provides information about compensation for the Board of Directors and the Group Executive Board members. It is available in English and German (*“Vergütungsbericht”*) and represents a component of the Annual Report.

Sustainability Report: Published in English, our Sustainability Report provides disclosures on environmental, social and governance topics related to UBS Group.

Diversity, Equity and Inclusion Report: This report details our DE&I priority areas of focus, our strategic goals and our approach to achieving them at UBS.

Quarterly publications

Quarterly financial report: This report provides an update on our performance and strategy (where applicable) for the respective quarter. It is available in English.

The annual and quarterly publications are available in a fully digital and .pdf format at ubs.com/investors, under “Financial information.” Starting with our Annual Report 2022, we no longer provide printed copies, in any language, of the aforementioned annual publications.

Other information

Website

The “Investor Relations” website at ubs.com/investors provides the following information about UBS: results-related news releases; financial information, including results-related filings with the US Securities and Exchange Commission (the SEC); information for shareholders, including UBS share price charts, as well as data and dividend information, and for bondholders; our corporate calendar; and presentations by management for investors and financial analysts. Information is available online in English, with some information also available in German.

Results presentations

Our quarterly results presentations are webcast live. Recordings of most presentations can be downloaded from ubs.com/presentations.

Messaging service

Email alerts to news about UBS can be subscribed for under “UBS News Alert” at ubs.com/global/en/investor-relations/contact/investor-services.html. Messages are sent in English, German, French or Italian, with an option to select theme preferences for such alerts.

Form 20-F and other submissions to the US Securities and Exchange Commission

We file periodic reports and submit other information about UBS to the SEC. Principal among these filings is the annual report on Form 20-F, filed pursuant to the US Securities Exchange Act of 1934. The filing of Form 20-F is structured as a wraparound document. Most sections of the filing can be satisfied by referring to the combined UBS Group AG and UBS AG Annual Report. However, there is a small amount of additional information in Form 20-F that is not presented elsewhere and is particularly targeted at readers in the US. Readers are encouraged to refer to this additional disclosure. Any document that we file with the SEC is available on the SEC’s website: sec.gov. Refer to ubs.com/investors for more information.

Cautionary Statement Regarding Forward-Looking Statements | This report contains statements that constitute “forward-looking statements,” including but not limited to management’s outlook for UBS’s financial performance, statements relating to the anticipated effect of transactions and strategic initiatives on UBS’s business and future development and goals or intentions to achieve climate, sustainability and other social objectives. While these forward-looking statements represent UBS’s judgments, expectations and objectives concerning the matters described, a number of risks, uncertainties and other important factors could cause actual developments and results to differ materially from UBS’s expectations. The Russia–Ukraine war has led to heightened volatility across global markets, exacerbated global inflation, and slowed global growth. In addition, the war has caused significant population displacement, and if the conflict continues or escalates, the scale of disruption will increase and continue to cause shortages of vital commodities, including energy shortages and food insecurity, and may lead to recessions in OECD economies. The coordinated sanctions on Russia and Belarus, and Russian and Belarusian entities and nationals, and the uncertainty as to whether the war will widen and intensify, may have significant adverse effects on the market and macroeconomic conditions, including in ways that cannot be anticipated. This creates significantly greater uncertainty about forward-looking statements. Other factors that may affect our performance and ability to achieve our plans, outlook and other objectives also include, but are not limited to: (i) the degree to which UBS is successful in the ongoing execution of its strategic plans, including its cost reduction and efficiency initiatives and its ability to manage its levels of risk-weighted assets (RWA) and leverage ratio denominator (LRD), liquidity coverage ratio and other financial resources, including changes in RWA assets and liabilities arising from higher market volatility; (ii) the degree to which UBS is successful in implementing changes to its businesses to meet changing market, regulatory and other conditions; (iii) increased interest rate volatility in major markets; (iv) developments in the macroeconomic climate and in the markets in which UBS operates or to which it is exposed, including movements in securities prices or liquidity, credit spreads, currency exchange rates, the effects of economic conditions, including increasing inflationary pressures, market developments, increasing geopolitical tensions, and changes to national trade policies on the financial position or creditworthiness of UBS’s clients and counterparties, as well as on client sentiment and levels of activity, including the COVID-19 pandemic and the measures taken to manage it, which have had and may also continue to have a significant adverse effect on global and regional economic activity, including disruptions to global supply chains and labor market displacements; (v) changes in the availability of capital and funding, including any changes in UBS’s credit spreads and ratings, as well as availability and cost of funding to meet requirements for debt eligible for total loss-absorbing capacity (TLAC); (vi) changes in central bank policies or the implementation of financial legislation and regulation in Switzerland, the US, the UK, the European Union and other financial centers that have imposed, or resulted in, or may do so in the future, more stringent or entity-specific capital, TLAC, leverage ratio, net stable funding ratio, liquidity and funding requirements, heightened operational resilience requirements, incremental tax requirements, additional levies, limitations on permitted activities, constraints on remuneration, constraints on transfers of capital and liquidity and sharing of operational costs across the Group or other measures, and the effect these will or would have on UBS’s business activities; (vii) UBS’s ability to successfully implement resolvability and related regulatory requirements and the potential need to make further changes to the legal structure or booking model of UBS Group in response to legal and regulatory requirements, or other external developments; (viii) UBS’s ability to maintain and improve its systems and controls for complying with sanctions in a timely manner and for the detection and prevention of money laundering to meet evolving regulatory requirements and expectations, in particular in current geopolitical turmoil; (ix) the uncertainty arising from domestic stresses in certain major economies; (x) changes in UBS’s competitive position, including whether differences in regulatory capital and other requirements among the major financial centers adversely affect UBS’s ability to compete in certain lines of business; (xi) changes in the standards of conduct applicable to our businesses that may result from new regulations or new enforcement of existing standards, including measures to impose new and enhanced duties when interacting with customers and in the execution and handling of customer transactions; (xii) the liability to which UBS may be exposed, or possible constraints or sanctions that regulatory authorities might impose on UBS, due to litigation, contractual claims and regulatory investigations, including the potential for disqualification from certain businesses, potentially large fines or monetary penalties, or the loss of licenses or privileges as a result of regulatory or other governmental sanctions, as well as the effect that litigation, regulatory and similar matters have on the operational risk component of our RWA, as well as the amount of capital available for return to shareholders; (xiii) the effects on UBS’s business, in particular cross-border banking, of sanctions, tax or regulatory developments and of possible changes in UBS’s policies and practices; (xiv) UBS’s ability to retain and attract the employees necessary to generate revenues and to manage, support and control its businesses, which may be affected by competitive factors; (xv) changes in accounting or tax standards or policies, and determinations or interpretations affecting the recognition of gain or loss, the valuation of goodwill, the recognition of deferred tax assets and other matters; (xvi) UBS’s ability to implement new technologies and business methods, including digital services and technologies, and ability to successfully compete with both existing and new financial service providers, some of which may not be regulated to the same extent; (xvii) limitations on the effectiveness of UBS’s internal processes for risk management, risk control, measurement and modeling, and of financial models generally; (xviii) the occurrence of operational failures, such as fraud, misconduct, unauthorized trading, financial crime, cyberattacks, data leakage and systems failures, the risk of which is increased with cyberattack threats from nation states; (xix) restrictions on the ability of UBS Group AG to make payments or distributions, including due to restrictions on the ability of its subsidiaries to make loans or distributions, directly or indirectly, or, in the case of financial difficulties, due to the exercise by FINMA or the regulators of UBS’s operations in other countries of their broad statutory powers in relation to protective measures, restructuring and liquidation proceedings; (xx) the degree to which changes in regulation, capital or legal structure, financial results or other factors may affect UBS’s ability to maintain its stated capital return objective; (xxi) uncertainty over the scope of actions that may be required by UBS, governments and others for UBS to achieve goals relating to climate, environmental and social matters, as well as the evolving nature of underlying science and industry and the possibility of conflict between different governmental standards and regulatory regimes; and (xxii) the effect that these or other factors or unanticipated events may have on our reputation and the additional consequences that this may have on our business and performance. The sequence in which the factors above are presented is not indicative of their likelihood of occurrence or the potential magnitude of their consequences. Our business and financial performance could be affected by other factors identified in our past and future filings and reports, including those filed with the US Securities and Exchange Commission (the SEC). More detailed information about those factors is set forth in documents furnished by UBS and filings made by UBS with the SEC, including UBS’s Annual Report on Form 20-F for the year ended 31 December 2022. UBS is not under any obligation to (and expressly disclaims any obligation to) update or alter its forward-looking statements, whether as a result of new information, future events, or otherwise.

Rounding | Numbers presented throughout this report may not add up precisely to the totals provided in the tables and text. Percentages and percent changes disclosed in text and tables are calculated on the basis of unrounded figures. Absolute changes between reporting periods disclosed in the text,

which can be derived from numbers presented in related tables, are calculated on a rounded basis.

Tables | Within tables, blank fields generally indicate non-applicability or that presentation of any content would not be meaningful, or that information is not available as of the relevant date or for the relevant period. Zero values generally indicate that the respective figure is zero on an actual or rounded basis. Values that are zero on a rounded basis can be either negative or positive on an actual basis.

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Articles of Association UBS Group AG (UBS Group SA) (UBS Group Inc.)

6 April 2022

The present text is a translation of the original German Articles of Association (“Statuten”) which constitute the definitive text and are binding in law.

In these Articles of Association, references to the generic masculine equally apply to both sexes.

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Section 1

Name, registered office, business object and duration of the Corporation

Article 1

Name and registered office A corporation limited by shares under the name of UBS Group AG / UBS Group SA / UBS Group Inc. is established with its registered office in Zurich.

Article 2

Purpose

¹ The purpose of the Corporation is to acquire, hold, manage and sell direct and indirect participations in enterprises of any kind, in particular in the area of banking, financial, advisory, trading and service activities in Switzerland and abroad.

² The Corporation may establish enterprises of any kind in Switzerland and abroad, hold equity interests in these enterprises, and conduct their management.

³ The Corporation is authorized to acquire, mortgage and sell real estate and building rights in Switzerland and abroad.

⁴ The Corporation may provide loans, guarantees and other kinds of financing and security for Group companies and borrow and invest money on the money and capital markets.

Article 3

Duration

The duration of the Corporation shall not be limited by time.

Section 2

Share capital

Article 4

Share capital

¹ The share capital of the Corporation is CHF 352,463,572.20, divided into 3,524,635,722 registered shares with a par value of CHF 0.10 each. The share capital is fully paid up. ² Registered shares may be converted into bearer shares and bearer shares into registered shares by resolution of the General Meeting.

Article 4a

Conditional capital

¹ The share capital may be increased by a maximum of CHF 12,170,583.00 through the issuance of a maximum of 121,705,830 fully paid registered shares with a par value of CHF 0.10 each upon exercise of employee options issued to employees and members of the management and of the Board of Directors of the Corporation and its subsidiaries. The preemptive rights and the advance subscription rights of the shareholders shall be excluded. The issuance of these options to employees and members of the management and of the Board of Directors of the Corporation and its subsidiaries will take place in accordance with the plan rules issued by the Board of Directors and its compensation committee. The acquisition of shares through the exercise of option rights as well as every subsequent transfer of these shares shall be subject to the registration requirements set forth in Article 5 of the Articles of Association.

² The share capital may be increased in an amount not to exceed CHF 38,000,000 by the issuance of up to 380,000,000 fully paid registered shares with a nominal value of CHF 0.10 each through the voluntary or mandatory exercise of conversion rights and/or warrants granted in connection with the issuance of bonds or similar financial instruments by the Corporation or one of its Group companies on national or international capital markets. The pre-emptive rights of the shareholders shall be excluded. The then current owners of conversion rights and/or warrants shall be entitled to subscribe for the new shares. The conditions of the conversion rights and/or warrants shall be determined by the Board of Directors. The acquisition of shares through voluntary or mandatory exercise of conversion rights and/or warrants, as well as each subsequent transfer of the shares, shall be subject to the registration requirements set forth in Article 5 of the Articles of Association.

In connection with the issuance of convertible bonds or bonds with warrants or similar financial instruments, the Board of Directors shall be authorized to restrict or exclude the advance subscription rights of shareholders if such instruments are issued (i) on national or international capital markets or (ii) to one or more financial investors. If the advance subscription rights are restricted or excluded by the Board of Directors, the following shall apply: the issuance of such instrument shall be made at prevailing market conditions, and the new shares shall be issued pursuant to the relevant conditions of that financial instrument. Conversion rights may be exercised during a maximum 10- year period, and warrants may be exercised during a maximum 7-year period, in each case from the date of the respective issuance. The issuance of the new shares upon voluntary or mandatory exercise of conversion rights and/or warrants shall be made at conditions taking into account the market price of the shares and/or comparable instruments with a market price at the time of the issuance of the relevant financial instrument.

Share register and nominees

Article 5

¹ A share register is maintained for the registered shares, in which owners' and usufructuaries' family and given names are entered, with their complete address and nationality (or registered office for legal entities). Shares held in joint accounts may be registered jointly with voting rights, if all registered owners of the shares provide the declaration requested in paragraph 3 below.

² If the mailing address of a shareholder changes, the new address must be communicated to the Corporation. As long as this has not been done, all written communications will be sent to the address entered in the share register, this being valid according to the requirements of the law.

³ Those who acquire registered shares shall be entered in the share register as shareholders with voting rights if they expressly declare that they acquired these registered shares in their own names and for their own account. If the party acquiring the shares is not prepared to provide such a declaration, the Board of Directors may refuse to allow the shares to be entered with voting rights.

⁴ The restriction on registration under paragraph 3 above also applies to shares acquired by the exercise of preemptive, option or conversion rights.

⁵ The Board of Directors is authorized, after hearing the position of the registered shareholder or nominee affected, to strike the entry of a shareholder with voting rights from the share register retroactively with effect to the date of the entry, if it was obtained under false pretenses. The party affected must be informed of the action immediately.

⁶ The Board of Directors formulates general principles relating to the registration of fiduciaries/nominees and issues the necessary regulations to ensure compliance with the above provisions.

Article 6

Form of shares

¹ Registered shares of the Corporation will be, subject to paragraph 2, in the form of uncertificated securities (in the sense of the Swiss Code of Obligations) and intermediary-held securities (in the sense of the Swiss Federal Intermediated Securities Act).

² Following his registration in the share register, the shareholder may request the Corporation to issue a written statement in respect of his registered shares at any time; however, he has no entitlement to the printing and delivery of share certificates. In contrast, the Corporation may print and deliver share certificates for registered shares (single certificates, certificates representing multiples of shares or global certificates) at any time. It may withdraw registered shares issued as intermediary-held securities from the respective custody system. With the consent of the shareholder, the Corporation may cancel issued certificates which are returned to it without replacement.

Article 7

Exercise of rights

¹ The Corporation recognizes only one representative per share.

² Voting rights and associated rights may only be exercised in relation to the Corporation by a party entered in the share register as having the right to vote.

Section 3

Corporate bodies

A. General Meeting

Article 8

Authority

The General Meeting is the Corporation's supreme corporate body.

Article 9

Types of General Meetings
a. Annual General Meeting

The Annual General Meeting takes place every year within six months after the close of the financial year; the annual report, the compensation report and the reports of the Auditors must be available for inspection by shareholders at the Corporation's registered office at least twenty days before the meeting.

Article 10

b. Extraordinary General Meetings

¹ Extraordinary General Meetings are convened whenever the Board of Directors or the Auditors consider it necessary.

² Such a meeting must also be convened upon a resolution of the General Meeting or a written request from one or more shareholders representing together at least one tenth of the share capital, specifying the items to be included on the agenda and the proposals to be put forward.

Article 11

Convening

¹ The General Meeting shall be called by the Board of Directors or, if need be, by the Auditors at least twenty days before the meeting is to take place. The meeting is called by publishing a single notice in the publication of record designated by the Corporation. An invitation will be sent to all registered shareholders.

² The notice to convene the General Meeting shall specify the agenda with the proposals of the Board of Directors and proposals from shareholders and, in the event of elections, the names of the proposed candidates.

Article 12

Placing of items on the agenda

¹ Shareholders representing shares with an aggregate par value of CHF 62,500 may submit proposals for matters to be placed on the agenda for consideration by the General Meeting, provided that their proposals are submitted in writing within the deadline published by the Corporation and include the actual motion(s) to be put forward.

² No resolutions may be passed concerning matters which have not been duly placed on the agenda, except on a motion put forward at the General Meeting to call an Extraordinary General Meeting or a motion for a special audit to be carried out.

Article 13

Chairmanship, tellers, minutes

¹ The Chairman of the Board of Directors or, if the Chairman cannot attend, a Vice Chairman or another member designated by the Board of Directors, shall preside over the General Meeting and appoint a secretary and the necessary tellers.

² Minutes are kept of the proceedings and must be signed by the presiding chair of the meeting and the secretary.

Article 14

Shareholder proxies

¹ The Board of Directors issues procedural rules for participation and representation of shareholders at the General Meeting, including the requirements as to powers of attorney.

² A shareholder may only be represented at the General Meeting by his legal representative, under a written power of attorney by another shareholder eligible to vote or, under a written or electronic power of attorney, by the Independent Proxy.

³ The presiding chair of the meeting decides whether to recognize the power of attorney.

Article 15

Independent Proxy

¹ The Independent Proxy shall be elected by the General Meeting for a term of office expiring after completion of the next Annual General Meeting.

² Re-election is permitted.

³ If the Corporation does not have an Independent Proxy, the Board of Directors shall appoint the Independent Proxy for the next General Meeting.

Voting right

Article 16

Each share conveys the right to cast one vote.

Resolutions, elections

Article 17

¹ Resolutions and elections are decided at the General Meeting by an absolute majority of the votes cast, excluding blank and invalid ballots, subject to these Articles of Association and the compulsory provisions of the law.

² A resolution to change Article 19 of the Articles of Association, to remove one fourth or more of the members of the Board of Directors or to delete or modify Article 17 paragraph 2 of the Articles of Association must receive at least two thirds of the votes represented.

³ The presiding chair of the meeting shall decide whether voting on resolutions and elections be conducted electronically, by a show of hands or by a written ballot. Shareholders representing at least 3% of the votes represented may always request that a vote or election take place electronically or by a written ballot.

⁴ In the case of a written ballot, the presiding chair of the meeting may rule that only the ballots of those shareholders shall be collected who choose to abstain or to cast a negative vote, and that all other shares represented at the General Meeting at the time of the vote shall be counted in favor, in order to expedite the counting of the votes.

⁵ The presiding chair of the meeting may order that a resolution or election be repeated if, in his view, the results of the vote are in doubt. In this case, the preceding resolution or election shall be deemed to have not occurred.

Article 18

Powers

The General Meeting has the following powers:

- a) To establish and amend the Articles of Association
- b) To elect the members and the Chairman of the Board of Directors and the members of the compensation committee
- c) To elect the Auditors
- d) To elect the Independent Proxy
- e) To approve the management report and the Group financial statements

- f) To approve the financial statements and to decide upon the appropriation of the net profit shown in the balance sheet
- g) To approve the compensation for the Board of Directors and the Group Executive Board pursuant to Article 43 of the Articles of Association
- h) To give the members of the Board of Directors and of the Group Executive Board a discharge
- i) To take decisions on all matters reserved to the General Meeting by law or by the Articles of Association, or which are placed before it by the Board of Directors.

B. Board of Directors

Article 19

Number of Board members

The Board of Directors shall consist of at least six and no more than twelve members.

Article 20

Term of office

¹ The term of office for members of the Board of Directors and its Chairman expires after completion of the next Annual General Meeting.

² Members whose term of office has expired are immediately eligible for re-election.

Article 21

Organization

¹ Except for the election of the Chairman and the members of the compensation committee by the General Meeting, the Board of Directors shall constitute itself. It shall elect at least one Vice Chairman and a Senior Independent Director from among its members.

² The Board of Directors shall appoint its secretary, who need not be a member of the Board.

³ If the office of the Chairman is vacant, the Board of Directors shall appoint a new Chairman from among its members for the remaining term of office.

Article 22

Convening, participation

¹ The Chairman shall convene the Board of Directors as often as business requires, but at least six times a year.

² The Board of Directors shall also be convened if one of its members or the Group Chief Executive Officer submits a written request to the Chairman to hold such a meeting.

Article 23

Decisions

¹ Decisions of the Board of Directors are taken by an absolute majority of the votes present. In case of a tie, the presiding chair of the meeting shall cast the deciding vote.

² The number of members who must be present to constitute a quorum and the modalities for the passing of resolutions shall be laid down by the Board of Directors in the Organization Regulations. No such quorum is required for decisions confirming and amending resolutions relating to capital increases.

Article 24

Duties and powers

¹ The Board of Directors has ultimate responsibility for the management of the Corporation and the supervision and control of its executive management.

² The Board of Directors may also take decisions on all matters which are not expressly reserved to the General Meeting or to another corporate body by law or by the Articles of Association.

Article 25

Ultimate responsibility for the management of the Corporation

The ultimate responsibility for the management of the Corporation comprises in particular:

- a) Preparing of and deciding on proposals to be placed before the General Meeting
- b) Issuing the regulations necessary for the conduct of business and for the delineation of authority, in particular the Organization Regulations and the regulations governing the Group Internal Audit
- c) Laying down the principles for the accounting, financial and risk controls and financial planning, in particular the allocation of equity resources and risk capital for business operations
- d) Decisions on Group strategy and other matters reserved to the Board of Directors under the Organization Regulations
- e) Appointment and removal of (i) the Group Chief Executive Officer, (ii) such other members of the Group Executive Board as the Organization Regulations require to be appointed by the Board of Directors and (iii) the Head of Group Internal Audit
- f) Decisions on increasing the share capital, to the extent this falls within the authority of the Board of Directors (Article 651 paragraph 4 of the Swiss Code of Obligations), on the report concerning an increase in capital (Article 652e of the Swiss Code of Obligations) and on the ascertainment of capital increases and the corresponding amendments to the Articles of Association.

Article 26

Supervision, control

Supervision and control of the business management comprises in particular the following:

- a) Review of the management report, Group and parent company financial statements, the compensation report as well as quarterly financial statements
- b) Acceptance of regular reports covering the course of business and the position of the Group, the status and development of country, counterparty and market risks and the extent to which equity and risk capital are tied up due to business operations
- c) Consideration of reports prepared by the Auditors.

Article 27

Delegation, Organization Regulations

The Board of Directors may delegate part of its authority to one or more of its members or to third parties, subject to Articles 25 and 26 of the Articles of Association. The allocation of authority and functions shall be defined in the Organization Regulations.

Article 28

Number of members, term of office and organization of the compensation committee

- ¹ The compensation committee shall consist of at least three members of the Board of Directors.
- ² The compensation committee shall organize itself within the limits of the law and of the Articles of Association. The Board of Directors shall appoint a chairperson.
- ³ If there are vacancies on the compensation committee, the Board of Directors shall appoint the missing members from among its members for the remaining term of office.

Article 29

Duties and powers of the compensation committee

¹ The compensation committee supports the Board of Directors in establishing and reviewing the Corporation's compensation strategy and guidelines and in articulating the performance criteria relevant for determining individual total compensation for each member of the Group Executive Board. The compensation committee also prepares the proposals to the General Meeting regarding the compensation of the Board of Directors and of the Group Executive Board and may submit proposals to the Board of Directors on other compensation-related issues.

² The Board of Directors shall determine, and codify in the Organization Regulations, for which functions of the Group Executive Board the compensation committee shall establish and review financial and non-financial performance targets and assess the performance against these targets to determine compensation recommendations for the members of the Group Executive Board. In accordance with the Organization Regulations, these recommendations shall be presented to the Board of Directors for review or approval, subject to the approval by the General Meeting as set out in Article 43 of the Articles of Association. The compensation committee shall, in accordance with the Organization Regulations, also submit a proposal for the compensation for the members of the Board of Directors to the Board of Directors, subject to the approval by the General Meeting as set out in Article 43 of the Articles of Association.

³ The Board of Directors may delegate further tasks to the compensation committee which shall be determined in the Organization Regulations approved by the Board of Directors.

Article 30

Signatures

The due and valid representation of the Corporation by members of the Board of Directors or further persons shall be determined in the Organization Regulations and a specific directive.

Article 31

Mandates

¹ No member of the Board of Directors may hold more than four additional mandates in listed companies and five additional mandates in non-listed companies.

² The following mandates are not subject to the limitations set forth in paragraph 1:

- a) Mandates in companies which are controlled by the Corporation or which control the Corporation
- b) Mandates held at the request of the Corporation or companies controlled by it. No member of the Board of Directors shall hold more than ten such mandates

- c) Mandates in associations, charitable organizations, foundations, trusts and employee welfare foundations. No member of the Board of Directors shall hold more than ten such mandates.

³ Mandates shall mean mandates in the supreme governing body of a legal entity which is required to be registered in the commercial register or a comparable foreign register. Mandates in different legal entities which are under joint control are deemed one mandate.

Article 32

**Terms of agreements
relating to compensation**

The Corporation or companies controlled by it may enter into agreements for a fixed term with members of the Board of Directors relating to their compensation. Duration and termination shall comply with the term of office and the law.

Article 33

Loans

Loans to the independent members of the Board of Directors shall be made in accordance with the customary business and market conditions. Loans to the non-independent members of the Board of Directors shall be made in the ordinary course of business on substantially the same terms as those granted to employees of the Corporation or companies controlled by it. The total amount of such loans shall not exceed CHF 20,000,000 per member.

C. Group Executive Board

Article 34

Organization

The Group Executive Board is composed of the Group Chief Executive Officer and at least three other members as further set forth in the Organization Regulations.

Article 35

Functions, authorities

¹ The Group Executive Board acting under the leadership of the Group Chief Executive Officer is responsible for the management of the Group. It is the supreme executive body as defined by the Swiss Federal Law on Banks and Savings Banks. It implements the Group strategy decided by the Board of Directors and ensures the execution of the decisions of the Board of Directors. It is responsible for the Group's results.

² The responsibilities and authorities of the Group Executive Board and other management units designated by the Board of Directors are set forth in the Organization Regulations. Article 36

Mandates

¹ No member of the Group Executive Board may hold more than one additional mandate in a listed company and five additional mandates in non-listed companies, subject to approval by the Board of Directors.

² The following mandates are not subject to the limitations set forth in paragraph 1:

- a) Mandates in companies which are controlled by the Corporation or which control the Corporation
- b) Mandates held at the request of the Corporation or companies controlled by it. No member of the Group Executive Board shall hold more than ten such mandates
- c) Mandates in associations, charitable organizations, foundations, trusts and employee welfare foundations. No member of the Group Executive Board shall hold more than eight such mandates.

³ Mandates shall mean mandates in the supreme governing body of a legal entity which is required to be registered in the commercial register or a comparable foreign register. Mandates in different legal entities which are under joint control are deemed one mandate.

Article 37

Employment contract terms

¹ The term of employment contracts with the members of the Group Executive Board may be unlimited with a notice period of up to twelve months or may be fixed with a term of up to one year.

² The Corporation or companies controlled by it may enter into non-compete agreements with the members of the Group Executive Board for the time after termination of the employment agreement for a duration of up to one year. The respective consideration shall not exceed the total compensation paid or granted to such member of the Group Executive Board for the last full financial year prior to termination.

Article 38

Loans

Loans to the members of the Group Executive Board shall be made in the ordinary course of business on substantially the same terms as those granted to employees of the Corporation or companies controlled by it. The total amount of such loans shall not exceed CHF 20,000,000 per member.

D. Auditors

Article 39

**Term of office, authority
and duties**

¹ An auditing company subject to governmental supervision as required by law is to be appointed as Auditors.

² The General Meeting shall elect the Auditors for a term of office of one year. The rights and duties of the Auditors are determined by the provisions of the law.

³ The General Meeting may appoint Special Auditors for a term of three years, who provide the attestations required for capital increases.

Section 4

Financial statements and appropriation of profit, reserves

Article 40

Financial year

The financial statements and the Group financial statements are closed on 31 December of each year.

Article 41

Appropriation of disposable profit

¹ At least 5% of the profit for the year is allocated to the general statutory reserve until such time as said reserve amounts to 20% of the share capital.

² The remaining profit is, subject to the provisions of the Swiss Code of Obligations and of the Swiss Federal Banking Act, at the disposal of the General Meeting who may also use it for the formation of free or special reserves.

Article 42

Reserves

The General Meeting determines the utilization of the general statutory reserve in accordance with the legal provisions acting upon the proposal of the Board of Directors.

Section 5

Compensation of the members of the Board of Directors and the Group Executive Board

Article 43

Approval of the compensation of the Board of Directors and the Group Executive Board

¹ The General Meeting shall approve the proposals of the Board of Directors in relation to:

- a) The maximum aggregate amount of compensation of the Board of Directors for the period until the next Annual General Meeting
- b) The maximum aggregate amount of fixed compensation of the Group Executive Board for the following financial year
- c) The aggregate amount of variable compensation of the Group Executive Board for the preceding financial year.

² The Board of Directors may submit for approval by the General Meeting deviating or additional proposals relating to the same or different periods.

³ In the event the General Meeting does not approve a proposal of the Board of Directors, the Board of Directors shall determine, taking into account all relevant factors, the respective (maximum) aggregate amount or (maximum) partial amounts and submit the amount(s) so determined for approval by the General Meeting.

⁴ The Corporation or companies controlled by it may pay or grant compensation prior to approval by the General Meeting, subject to subsequent approval.

Article 44

General compensation principles

¹ The compensation system of the Corporation is designed to align reward with sustainable performance and to support appropriate and controlled risk-taking.

² When determining individual compensation, the Board of Directors or, where delegated to it, the compensation committee takes into account position and level of responsibility of the recipient and performance of the Corporation and companies controlled by it. It ensures compliance with applicable regulatory requirements.

³ Compensation may be paid or granted in the form of cash, shares, financial instruments or units, in kind, or in the form of benefits. The Board of Directors or, where delegated to it, the compensation committee determines the key features, such as grant, vesting, exercise and forfeiture conditions and applicable harmful acts provisions. The Board of Directors, or where delegated to it, the compensation committee may provide, among other things, for continuation, acceleration or removal of vesting and exercise conditions, for payment or grant of compensation assuming target achievement or for forfeiture in the event of predetermined events such as a change-of-control or termination of an employment or mandate agreement. The Corporation or companies controlled by it may procure any shares required to meet any resulting payment obligations through purchases in the market or, to the extent available, by using the Corporation's conditional share capital.

⁴ Compensation may be paid or granted by the Corporation or companies controlled by it.

Article 45

Compensation of the Board of Directors

¹ Compensation of the members of the Board of Directors shall comprise a base remuneration and may comprise other compensation elements and benefits.

² Compensation of the members of the Board of Directors is intended to recognize the responsibility and governance nature of their role, to attract and retain qualified individuals and to ensure alignment with shareholders' interest.

Article 46

Compensation of the Group Executive Board

¹ Compensation of the members of the Group Executive Board shall comprise fixed and variable compensation elements.

² Fixed compensation shall comprise the base salary and may comprise other compensation elements and benefits.

³ Variable compensation elements shall be governed by financial and non-financial performance measures that take into account the performance of the Corporation and/or parts thereof, targets in relation to the market, other companies or comparable benchmarks, short- and long-term strategic objectives and/or individual targets. The Board of Directors or, where delegated to it, the compensation committee determines the respective performance measures, the overall and individual performance targets, and their achievements.

⁴ The Board of Directors or, where delegated to it, the compensation committee aims to ensure alignment with sustainable performance and appropriate risk-taking through adequate deferrals, forfeiture conditions, caps on compensation, harmful acts provisions and similar means with regard to parts of or all of the compensation. Parts of variable compensation shall be subject to a multi-year vesting period.

⁵ If the maximum aggregate amount of compensation already approved by the General Meeting is not sufficient to also cover the compensation of a person who becomes a member of or is being promoted within the Group Executive Board after the General Meeting has approved the compensation, the Corporation or companies controlled by it shall be authorized to pay or grant each such Group Executive Board member a supplementary amount during the compensation period(s) already approved. The aggregate pool for such supplementary amounts per compensation period shall not exceed 40% of the average of total annual compensation paid or granted to the Group Executive Board during the previous three years.

Section 6

Notices and jurisdiction

Article 47

Official publication media Public notices appear in the Swiss Official Gazette of Commerce (in French “Feuille Officielle Suisse du Commerce”, or German “Schweizerisches Handelsamtsblatt”). The Board of Directors may designate other publications as well.

Article 48

Jurisdiction Jurisdiction for any disputes arising out of the corporate relationship shall solely be at the registered office of the Corporation.

Section 7

Disclosure of contributions in kind

Article 49

Contribution in kind

¹ In connection with the capital increase dated 26 November 2014, the Corporation acquires from UBS AG, Zurich and Basel, acting as contributor in kind and exchange agent in its own name but for account of certain shareholders of UBS AG, Zurich and Basel, who have tendered their shares in the course of the public exchange offer of the Corporation, 3,183,370,731 shares of UBS AG, Zurich and Basel, with a par value of CHF 0.10 each and a total value of CHF 32,718,731,974.95. In return, the Corporation has issued 3,183,370,731 registered shares in the Corporation with a par value of CHF 0.10 each to the contributor in kind.

² In connection with the capital increase dated 26 November 2014, the Corporation acquires from UBS Securities LLC, 1285 Avenue of the Americas, New York, NY 10019, U.S., acting as contributor in kind and exchange agent in its own name but for account of certain shareholders of UBS AG, Zurich and Basel, who have tendered their shares in the course of the public exchange offer of the Corporation, 201,494,824 shares of UBS AG, Zurich and Basel, with a par value of CHF 0.10 each and a total value of CHF 2,070,966,814.07. In return, the Corporation has issued 201,494,824 registered shares in the Corporation with a par value of CHF 0.10 each to the contributor in kind.

³ In connection with the capital increase dated 26 November 2014, the Corporation acquires from UBS AG, Zurich and Basel, acting as contributor in kind in its own name and in relation to shares tendered during the initial offer period in the course of the public exchange offer of the Corporation, 90,490,886 shares of UBS AG, Zurich and Basel, with a par value of CHF 0.10 each and a total value of CHF 1,533,820,517.70. In return, the Corporation has issued, on a one-to-one basis, 90,490,886 registered shares in the Corporation with a par value of CHF 0.10 each to the contributor in kind.

⁴ In connection with the capital increase dated 16 December 2014, the Corporation acquires from UBS AG, Zurich and Basel, acting as contributor in kind in its own name but for account of certain shareholders of UBS AG, Zurich and Basel, who (i) have tendered their shares in the course of the public exchange offer of the Corporation or (ii) have offered their registered shares for a private exchange under the terms of this public exchange offer, 229,042,914 shares of UBS AG, Zurich and Basel, with a par value of CHF 0.10 each and a total value of CHF 2,244,527,510.81. In return, the Corporation has issued, on a one-to-one basis, 229,042,914 registered shares in the Corporation with a par value of CHF 0.10 each to the contributor in kind.

⁵ In connection with the capital increase dated 16 December 2014, the Corporation acquires from UBS Securities LLC, 1285 Avenue of the Americas, New York, NY 10019, U.S., acting as contributor in kind in its own name but for account of certain shareholders of UBS AG, Zurich and Basel, who have tendered their shares in the course of the public exchange offer of the Corporation, 12,510,852 shares of UBS AG, Zurich and Basel, with a par value of CHF 0.10 each and a total value of CHF 122,601,267.19. In return, the Corporation has issued, on a one-to-one basis, 12,510,852 registered shares in the Corporation with a par value of CHF 0.10 each to the contributor in kind.

⁶ In connection with the capital increase dated 10 February 2015, the Corporation acquires from UBS AG, Zurich and Basel, 11,800,250 shares of UBS AG, Zurich and Basel, with a par value of CHF 0.10 each and a total value of CHF 130,476,501.09. In return, the Corporation has issued 11,800,250 registered shares in the Corporation with a par value of CHF 0.10 each to the contributor in kind.

⁷ In connection with the capital increase dated 9 March 2015, the Corporation acquires from UBS AG, Zurich and Basel, 9,525,000 shares of UBS AG, Zurich and Basel, with a par value of CHF 0.10 each and a total value of CHF 104,986,854.19. In return, the Corporation has issued, on a one-to-one basis, 9,525,000 registered shares in the Corporation with a par value of CHF 0.10 each to the contributor in kind.

⁸ In connection with the capital increase dated 12 June 2015, the Corporation acquires from UBS AG, Zurich and Basel, 17,500,000 shares of UBS AG, Zurich and Basel, with a par value of CHF 0.10 each and a total value of CHF 199,898,088.25. In return, the Corporation has issued, on a one-to-one basis, 17,500,000 registered shares in the Corporation with a par value of CHF 0.10 each to the contributor in kind.

⁹ In connection with the capital increase dated 28 August 2015, the Corporation acquires from UBS AG, Zurich and Basel, 88,825,456 shares of UBS AG, Zurich and Basel, with a par value of CHF 0.10 each and a total value of CHF 968,693,952.29. In return, the Corporation has issued, on a one-to-one basis, 88,825,456 registered shares in the Corporation with a par value of CHF 0.10 each to the contributor in kind.

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UBS GROUP AG AND UBS AG

DESCRIPTION OF SECURITIES REGISTERED UNDER SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

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Description of the Corporation's Ordinary Shares

The following summary of UBS Group AG's (the "Corporation") ordinary shares is based on and qualified by the Corporations Restated Articles of Association. For a complete description of the terms and provisions of the Company's equity securities, including its common stock, refer to the Articles of Association of which are filed as exhibits to this Annual Report on Form 20-F. Throughout this exhibit, references to "we," "our," "us" and "the Company" refer to the Corporation.

General

At year-end 2022, UBS Group AG had 3,524,635,722 issued shares with a par value of CHF 0.10 each, leading to a share capital of CHF 352,463,572.20. The shares are fully paid up, and there is no liability of shareholders to further capital calls by the company.

The shares rank pari passu in all respects with each other, including voting rights, entitlement to dividends, liquidation proceeds in case of the liquidation of the company, subscription or preemptive rights in the event of a share issue (Bezugsrechte) and preemptive rights in the event of the issuance of equity-linked securities (Vorwegzeichnungsrechte).

Following revisions to Swiss Corporate Law that are effective from 1 January 2023, the Board of Directors (the BoD) will propose at the 2023 AGM that the shareholders approve the conversion of the share capital currency of UBS Group AG from the Swiss franc to the US dollar. This would align the share capital currency with the functional currency of UBS Group AG. If the change is approved, the share capital of UBS Group AG will be slightly reduced to a nominal value per share of USD 0.10 (from CHF 0.10 currently), with the amount of the reduction allocated to the capital contribution reserve. If approved, the conversion will be implemented with retroactive effect as of 1 January 2023 for accounting purposes based on the closing exchange rate from 30 December 2022. Total equity reported for UBS Group AG will not change.

Registered shares of the Corporation are in the form of uncertificated securities (in the sense of the Swiss Code of Obligations) and intermediary-held securities (in the sense of the Swiss Federal Intermediated Securities Act). The shares of the Corporation are listed on the NYSE as global registered shares. As such, the shares can be traded and transferred across applicable borders, without the need for conversion, with identical shares traded on different stock exchanges in different currencies. We do not apply any restrictions or limitations on the transferability of shares.

Following a shareholder's registration in the share register, the shareholder may request the Corporation to issue a written statement in respect of his registered shares at any time; however, he has no entitlement to the printing and delivery of share certificates. In contrast, the Corporation may print and deliver share certificates for registered shares (single certificates, certificates representing multiples of shares or global certificates) at any time. It may withdraw registered shares issued as intermediary-held securities from the respective custody system. With the consent of the shareholder, the Corporation may cancel issued certificates which are returned to it without replacement.

Dividend Rights and Dividends

Shareholders are entitled to the dividends or other distributions approved by UBS Group AG's general meeting in proportion to their shareholdings.

Swiss law requires that at least 5% of the annual net profits of a corporation must be retained as statutory retained earnings until these equal, together with the statutory capital reserve, 20% of the corporation's paid-up share capital.

Under Swiss law, dividends may be paid out only if the corporation has sufficient distributable profits from previous business years or if the reserves of the corporation are sufficient to allow distribution of a dividend. In either event, dividends may be paid out only after approval by the shareholders' meeting. The BoD may propose to the shareholders that a dividend be paid out. The auditors must confirm that the dividend proposal of the BoD conforms with statutory law.

Dividends are usually due and payable after the shareholders' resolution relating to the allocation of profits has been passed. Under Swiss law, the statute of limitations in respect of dividend payments is five years.

U.S. registered holders of shares will receive dividend payments in U.S. dollars, unless they provide notice to UBS Group AG's U.S. transfer agent, Computershare, that they wish to receive dividend payments in Swiss francs. The U.S. transfer agent will be responsible for paying the U.S. dollars or Swiss francs to registered holders, and for withholding any required amounts for taxes or other governmental charges. If the U.S. transfer agent determines, after consultation with UBS Group AG, that in its judgment any foreign currency received by it cannot be converted into U.S. dollars or transferred to U.S. holders, it may distribute the foreign currency received by it, or an appropriate document evidencing the right to receive such currency, or in its discretion hold such foreign currency for the accounts of U.S. holders.

Voting Rights

Each share conveys the right to cast one vote. Swiss law distinguishes between registration with and without voting rights. Shareholders must be registered in the share register as shareholders with voting rights in order to vote and participate in general meetings or to assert or exercise other rights related to voting rights. We place no restrictions on share ownership and voting rights. However, pursuant to general principles formulated by the BoD, nominee companies, which normally represent a large number of individual shareholders and may hold an unlimited number of shares, have voting rights limited to a maximum of 5% of all issued UBS Group AG shares.

Resolutions and elections are decided at the General Meeting by a majority of the votes represented, excluding blank and invalid ballots, subject to the Articles of Association and the compulsory provisions of the law. For the approval of certain specific issues, the Swiss Code of Obligations requires a positive vote from a two-thirds majority of the votes represented at the given general meeting, and from a majority of the nominal value of shares represented thereat. Such issues include introducing shares with privileged voting rights, introducing restrictions on the transferability of registered shares, authorizing contingent capital or a capital band and restricting or excluding shareholders' preemptive rights.

A resolution to change Article 19 of the Articles of Association, to remove one fourth or more of the members of the BoD or to delete or modify Article 17 paragraph 2 of the Articles of Association must receive at least two thirds of the votes represented.

Shareholder ownership disclosure

Under the Swiss Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading of 19 June 2015 (the FMIA), anyone directly, indirectly or acting in concert with third parties holding shares in a company listed in Switzerland or holding derivative rights related to shares in such a company directly, indirectly or in concert with third parties must notify the company and the SIX Swiss Exchange (SIX) if the holding reaches, falls below or exceeds one of the following percentage thresholds: 3, 5, 10, 15, 20, 25, 33 1/3, 50 or 66 2/3% of voting rights, regardless of whether or not such rights may be exercised. Nominee companies that cannot autonomously decide how voting rights are exercised are not required to notify the company and SIX if they reach, exceed or fall below the aforementioned thresholds.

Board of Directors

The term of office for each Board member is one year, and no Board member may serve for more than 10 consecutive terms of office. In exceptional circumstances the Board can extend this limit.

Members whose term of office has expired are immediately eligible for re-election.

Liquidation Rights

In the event of liquidation of UBS Group AG's assets, shareholders are entitled to a proportional share after all debts have been paid.

Repurchase of Shares

Swiss law limits a corporation's ability to hold or repurchase its own shares. We and our Swiss subsidiaries may only repurchase shares if we have sufficient freely disposable equity capital available at its acquisition value to pay the purchase price and if the aggregate nominal value of the shares does not exceed 10% of our nominal share capital. Repurchases for cancellation purposes approved by the shareholders' meeting are exempted from the 10% threshold. Furthermore, such own shares must be disclosed as negative items in our shareholders' equity. Such shares held by us or our Swiss subsidiaries do not carry any rights to vote at shareholders' meetings.

Preemption Rights

Under Swiss law, any share issue, whether for cash or non-cash consideration or for no consideration, is subject to the prior approval of the shareholders' meeting. Shareholders of a Swiss corporation have certain preemptive rights to subscribe for new issues of shares in proportion to the nominal amount of shares held. The Articles of Association or a resolution adopted at a shareholders' meeting with a supermajority of at least two-thirds of the votes represented and a majority of the nominal value of the shares represented at the meeting may, however, limit or suspend preemptive rights in certain limited circumstances.

Medium-Term Notes, Series A

Description of Debt Securities We May Offer

Please note that in this section entitled “Description of Debt Securities We May Offer,” references to UBS, we, our and us refer only to UBS AG and not to its consolidated subsidiaries. Also, in this section, references to “holders” and “you” mean those who own debt securities registered in their own names on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in debt securities registered in street name or in debt securities issued in book-entry form through one or more depositaries. Owners of beneficial interests in the debt securities should read the section below entitled “Legal Ownership and Book-Entry Issuance.”

References herein to “this prospectus” are deemed to refer to this section “Medium-Term Notes, Series A” and references to “your prospectus supplement” are deemed to refer to the individual description of notes issuances contained below in this exhibit.

The Debt Indenture

As required by U.S. federal law for publicly offered bonds and notes, the debt securities are governed by a document called an indenture. The debt indenture is a contract between us and U.S. Bank Trust National Association, which acts as trustee.

The trustee has two main roles:

- First, the trustee can enforce your rights against us if we default. There are limitations on the extent to which the trustee acts on your behalf, which we describe below under “— Default, Remedies and Waiver of Default.”
- Second, the trustee performs administrative duties for us, such as sending you interest payments and notices.

See “—Our Relationship with the Trustee” below for more information about the trustee.

We May Issue Many Series of Debt Securities Under the Debt Indenture

We may issue as many distinct series of debt securities under the debt indenture as we wish. This section summarizes terms of the debt securities that apply generally to all series. The provisions of the debt indenture allow us not only to issue debt securities with terms different from those of debt securities previously issued under the debt indenture, but also to “reopen” a previous issue of a series of debt securities and issue additional debt securities of that series. Most of the financial and other specific terms of your series, will be described in the prospectus supplement accompanying this prospectus. Those terms may vary from the terms described here.

We may issue debt securities separately or together with other debt securities.

As you read this section, please remember that the specific terms of your debt security as described in your prospectus supplement will supplement and, if applicable, may modify or replace the general terms described in this section. If there are any differences between your prospectus supplement and this prospectus, your prospectus supplement will control. Thus, the statements we make in this section may not apply to your debt security.

When we refer to a series of debt securities, we mean a series issued under the debt indenture. When we refer to your prospectus supplement, we mean the prospectus supplement describing the specific terms of the debt security you purchase. The terms used in your prospectus supplement will have the meanings described in this prospectus, unless otherwise specified.

Unless we indicate otherwise in your prospectus supplement, the debt securities we issue to you will be part of the series of debt securities referred to as our “medium-term notes, Series A.” The Series A notes are a single distinct series under the debt indenture, and we may issue Series A notes in such amounts, at such times and on such terms as we wish. The Series A notes will differ from one another, and from any other series, in their terms, but all of the Series A notes together will constitute a single series for all purposes under the debt indenture pursuant to which they will be issued.

Amounts That We May Issue

The debt indenture does not limit the aggregate amount of debt securities that we may issue or the number of series or the aggregate amount of any particular series. We have already issued Series A notes, many of which are currently outstanding. We intend to issue additional Series A notes, and may issue additional Series A notes at any time, without your consent and without notifying you. We may also issue debt securities and other securities at any time without your consent and without notifying you.

The debt indenture and the debt securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the debt securities.

Principal Amount, Stated Maturity and Maturity

The principal amount of a debt security means the principal amount payable at its stated maturity, unless that amount is not determinable, in which case the principal amount of a debt security is its face amount.

The term “stated maturity” with respect to any debt security means the day on which the principal amount of your debt security is scheduled to become due. The principal may become due sooner, by reason of redemption or acceleration after a default or otherwise in accordance with the terms of the debt security. The day on which the principal actually becomes due, whether at the stated maturity or earlier, is called the “maturity” of the principal.

We also use the terms “stated maturity” and “maturity” to refer to the days when other payments become due. For example, we may refer to a regular interest payment date when an installment of interest is scheduled to become due as the “stated maturity” of that installment.

When we refer to the “stated maturity” or the “maturity” of a debt security without specifying a particular payment, we mean the stated maturity or maturity, as the case may be, of the principal.

This Section Is Only a Summary

The debt indenture and its associated documents, including your debt security, contain the full legal text governing the matters described in this section and your prospectus supplement. We have filed a copy of the debt indenture with the SEC as an exhibit to our registration statement. See “Where You Can Find More Information” above for information on how to obtain a copy.

This section and your prospectus supplement summarize all the material terms of the debt indenture and your debt security. They do not, however, describe every aspect of the debt indenture and your debt security. For example, in this section and your prospectus supplement, we use terms that have been given special meaning in the debt indenture, but we describe the meaning of only the more important of those terms.

Governing Law

The debt indenture is, and the debt securities will be, governed by New York law.

Currency of Debt Securities

Amounts that become due and payable on your debt security in cash will be payable in a currency, composite currency, basket of currencies or currency unit or units specified in your prospectus supplement. We refer to this currency, composite currency, basket of currencies or currency unit or units as a “specified currency.” The specified currency for your debt security will be U.S. dollars, unless your prospectus supplement states otherwise. Some debt securities may have different specified currencies for principal and interest. You will have to pay for your debt securities by delivering the requisite amount of the specified currency to UBS Securities LLC, UBS Financial Services Inc. or another firm that we name in your prospectus supplement, unless other arrangements have been made between you and us or you and that firm. We will make payments on your debt securities in the specified currency, except as described below in “— Payment Mechanics for Debt Securities.” See “Considerations Relating to Securities Denominated or Payable in or Linked to a Non-U.S. Dollar Currency” below for more information about risks of investing in this kind of debt securities.

Co-obligation of UBS Switzerland AG

UBS Switzerland AG is fully, unconditionally and irrevocably liable, jointly and severally, with UBS AG, for UBS AG’s obligations under and with respect to the debt securities with respect to the due and punctual payment of the principal of and any premium, interest and other amounts payable on, under or in respect of such securities and the due performance and observance of every covenant of the indenture to be performed or observed by UBS AG with respect to such securities.

The obligations of UBS Switzerland AG as a co-obligor are primary and not merely those of a surety. UBS Switzerland AG waives the right to require holders to proceed first against UBS AG and UBS Switzerland AG shall be subrogated to all rights of the holder of a security of a series against UBS AG in respect of any amounts paid to such holder by it pursuant to the terms of the indenture.

Types of Debt Securities

We may issue any of the three types of debt securities described below. A debt security may have elements of each of the three types of debt securities described below. For example, a debt security may bear interest at a fixed rate for some periods and at a floating rate in others. Similarly, a debt security may provide for a payment of principal at maturity linked to an index and also bear interest at a fixed or floating rate.

Fixed Rate Debt Securities

A debt security of this type will bear interest at a fixed rate described in the applicable prospectus supplement. This type includes zero coupon debt securities, which bear no interest and are instead issued at a price lower than the principal amount. See “— Original Issue Discount Debt Securities” below for more information about zero coupon and other original issue discount debt securities.

Each fixed rate debt security, except any zero coupon debt security, will bear interest from its original issue date or from the most recent date to which interest on the debt security has been paid or made available for payment. Interest will accrue on the principal of a fixed rate debt security at the fixed yearly rate stated in the applicable prospectus supplement, until the principal is paid or made available for payment or the security has been converted or exchanged. Each payment of interest due on an interest payment date or the date of maturity will include interest accrued from and including the last date to which interest has been paid, or made available for payment, or from the issue date if none has been paid or made available for payment, to but excluding the interest payment date or the date of maturity. We will compute interest on fixed rate debt securities on the basis of a 360-day year of twelve 30-day months. We will pay interest on each interest payment date and at maturity as described below under “— Payment Mechanics for Debt Securities.”

Floating Rate Debt Securities

Interest Rate Formulas. A debt security of this type will bear interest at rates that are determined by reference to an interest rate formula. In some cases, the rates may also be adjusted by adding or subtracting a spread or multiplying by a spread multiplier and may be subject to a minimum rate or a maximum rate. If your debt security is a floating rate debt security, the formula and any adjustments that apply to the interest rate will be specified below.

Each floating rate debt security will bear interest from its original issue date or from the most recent date to which interest on the debt security has been paid or made available for payment. Interest will accrue on the principal of a floating rate debt security at the yearly rate determined according to the interest rate formula stated in the applicable prospectus supplement, until the principal is paid or made available for payment. We will pay interest on each interest payment date and at maturity as described below under “— Payment Mechanics for Debt Securities.”

Calculation of Interest. Calculations relating to floating rate debt securities will be made by the calculation agent, an institution that we appoint as our agent for this purpose. That institution may include any affiliate of ours, such as UBS Securities LLC. The prospectus supplement for a particular floating rate debt security will name the institution that we have appointed to act as the calculation agent for that debt security as of its original issue date. We may appoint a different institution to serve as calculation agent from time to time after the original issue date of the debt security without your consent and without notifying you of the change. Absent manifest error, all determinations of the calculation will be final and binding on you and us, without any liability on the part of the calculation agent.

For each floating rate debt security, the calculation agent will determine, on the corresponding interest calculation or determination date, as described in the applicable prospectus supplement, the interest rate that takes effect on each interest reset date. In addition, the calculation agent will calculate the amount of interest that has accrued during each interest period — *i.e.*, the period from and including the original issue date, or the last date to which interest has been paid or made available for payment, to but excluding the payment date. For each interest period, the calculation agent will calculate the amount of accrued interest by multiplying the face or other specified amount of the floating rate debt security by an accrued interest factor for the interest period. This factor will equal the sum of the interest factors calculated for each day during the interest period. The interest factor for each day will be expressed as a decimal and will be calculated by dividing the interest rate, also expressed as a decimal, applicable to that day by 360 or by the actual number of days in the year, as specified in the applicable prospectus supplement.

Upon the request of the holder of any floating rate debt security, the calculation agent will provide the interest rate then in effect for that debt security — and, if determined, the interest rate that will become effective on the next interest reset date. The calculation agent’s determination of any interest rate, and its calculation of the amount of interest for any interest period, will be final and binding in the absence of manifest error.

All percentages resulting from any calculation relating to a debt security will be rounded upward or downward, as appropriate, to the next higher or lower one hundred-thousandth of a percentage point, *e.g.*, 9.876541% (or .09876541) being rounded down to 9.87654% (or .0987654) and 9.876545% (or .09876545) being rounded up to 9.87655% (or .0987655). All amounts used in or resulting from any calculation relating to a floating rate debt security will be rounded upward or downward, as appropriate, to the nearest cent, in the case of U.S. dollars, or to the nearest corresponding hundredth of a unit, in the case of a currency other than U.S. dollars, with one-half cent or one-half of a corresponding hundredth of a unit or more being rounded upward.

In determining the base rate that applies to a floating rate debt security during a particular interest period, the calculation agent may obtain rate quotes from various banks or dealers active in the relevant market, as described in the applicable prospectus supplement. Those reference banks and dealers may include the calculation agent itself and its affiliates, as well as any underwriter, dealer or agent participating in the distribution of the relevant floating rate debt securities and its affiliates, and they may include UBS AG or its affiliates.

Indexed Debt Securities

A debt security of this type provides that the principal amount payable at its maturity, and/or the amount of interest payable on an interest payment date, will be determined by reference to:

- securities of one or more issuers;
- one or more currencies;
- one or more commodities;
- any other financial, economic or other measure or instrument, including the occurrence or non-occurrence of any event or circumstance; and/or
- one or more indices or baskets of the items described above.

If you are a holder of an indexed debt security, you may receive an amount at maturity (including upon acceleration following an event of default) that is greater than or less than the face amount of your debt security depending upon the formula used to determine the amount payable and the value of the applicable index at maturity. The value of the applicable index will fluctuate over time.

An indexed debt security may provide either for cash settlement or for physical settlement by delivery of the underlying property or another property of

the type listed above. An indexed debt security may also provide that the form of settlement may be determined at our option or at the holder's option. Some indexed debt securities may be convertible, exercisable or exchangeable, at our option or the holder's option, into or for securities of an issuer other than UBS AG.

If you purchase an indexed debt security, your prospectus supplement will include information about the relevant index, about how amounts that are to become payable will be determined by reference to the price or value of that index and about the terms on which the security may be settled physically or in cash. The prospectus supplement will also identify the calculation agent that will calculate the amounts payable with respect to the indexed debt security and may exercise significant discretion in doing so. The calculation agent may be UBS Securities LLC or another of our affiliates. See “Considerations Relating to Indexed Securities” for more information about risks of investing in debt securities of this type.

Original Issue Discount Debt Securities

A fixed rate debt security, a floating rate debt security or an indexed debt security may be an original issue discount debt security. A debt security of this type is issued at a price lower than its principal amount and provides that, upon redemption or acceleration of its maturity, an amount less than its principal amount will be payable. An original issue discount debt security may be a zero coupon debt security. A debt security issued at a discount to its principal may, for U.S. federal income tax purposes, be considered an original issue discount debt security, regardless of the amount payable upon redemption or acceleration of maturity. See “U.S. Tax Considerations — Taxation of Debt Securities — Original Issue Discount” below for a brief description of the U.S. federal income tax consequences of owning an original issue discount debt security.

Information in Your Prospectus Supplement

Your prospectus supplement will describe the specific terms of your debt security, which will include some or all of the following:

- any limit on the total principal amount of the debt securities of the same series;
- the stated maturity;
- the specified currency or currencies for principal and interest, if not U.S. dollars;
- the price at which we originally issue your debt security, expressed as a percentage of the principal amount, and the original issue date;
- whether your debt security is a fixed rate debt security, a floating rate debt security or an indexed debt security;
- if your debt security is a fixed rate debt security, the yearly rate at which your debt security will bear interest, if any, and the interest payment dates;
- if your debt security is a floating rate debt security, the interest rate basis; any applicable index currency or maturity, spread or spread multiplier or initial base rate, maximum rate or minimum rate; the interest reset, determination, calculation and payment dates; the day count used to calculate interest payments for any period; the business day convention; and the calculation agent;
- if your debt security is an indexed debt security, the principal amount, if any, we will pay you at maturity, the amount of interest, if any, we will pay you on an interest payment date or the formula we will use to calculate these amounts, if any, and the terms on which your debt security will be exchangeable for or payable in cash, securities or other property;
- if your debt security may be converted into or exercised or exchanged for debt or equity securities of one or more third parties, the terms on which conversion, exercise or exchange may occur, including whether conversion, exercise or exchange is mandatory, at the option of the holder or at our option, the period during which conversion, exercise or exchange may occur, the initial conversion, exercise or exchange price or rate and the circumstances or manner in which the amount of securities issuable upon conversion, exercise or exchange may be adjusted;
- if your debt security is also an original issue discount debt security, the yield to maturity;
- if applicable, the circumstances under which your debt security may be redeemed at our option or repaid at the holder’s option before the stated maturity, including any redemption commencement date, repayment date(s), redemption price(s) and redemption period(s);
- the authorized denominations, if other than \$1,000 and integral multiples of \$1,000;
- the depository for your debt security, if other than DTC, and any circumstances under which the holder may request securities in non-global form, if we choose not to issue your debt security in book-entry form only;
- if your debt security will be issued in bearer form, any special provisions relating to bearer securities;
- if applicable, the circumstances under which we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes and under which we can redeem the debt securities if we have to pay additional amounts;
- the names and duties of any co-trustees, depositories, authenticating agents, paying agents, transfer agents or registrars for your debt security, as applicable; and
- any other terms of your debt security, which could be different from those described in this prospectus.

If you purchase your debt security — or any of our other securities we describe in this prospectus — in a market-making transaction, you will receive information about the price you pay and your trade and settlement dates in a separate confirmation of sale. A market-making transaction is one in which we, UBS Securities LLC, UBS Financial Services Inc. or another of our affiliates resells a security that it has previously acquired from another holder. A market-making transaction in a particular security occurs after the original issuance and sale of the security.

Extension of Maturity

If specified in the applicable prospectus supplement, we will have the option to extend the stated maturity of your debt security for one or more periods of whole years up to but not beyond the final maturity date specified in the prospectus supplement. We call a debt security whose maturity we may extend an extendible debt security. We call the period of time as to which we may extend the maturity the extension period. The following procedures will apply to extendible debt securities, unless otherwise indicated in the applicable prospectus supplement.

We may extend the maturity of an extendible debt security by notifying the paying agent between 45 and 60 days before the stated maturity then in effect. The stated maturity may be the original stated maturity, as described in the prospectus supplement, or a maturity that we previously extended by following these procedures. If we notify the paying agent that we will extend the maturity, the paying agent will send a notice to each holder by first class mail, postage prepaid, or by other means agreed upon between us and the paying agent, at least 30 days before the stated maturity then in effect. The notice sent by the paying agent will provide the following information:

- our election to extend the maturity of the extendible debt security;
- the extended maturity date or, if the maturity date had previously been extended, the new extended maturity date;
- the interest rate that will apply during the extension period or, in the case of a floating rate debt security, the spread and/or spread multiplier, if any, applicable during the extension period; and
- the provisions, if any, for redemption and repayment during the extension period.

Once the paying agent has mailed the notice to each holder, the extension of the maturity date will take place automatically. All of the terms of the debt security will be the same as the terms of the debt security as originally issued, except those terms that are described in the notice sent by the paying agent to each holder and except as described in the following paragraph.

Not later than 10:00 a.m., New York City time, on the twentieth calendar day before the maturity date then in effect for an extendible debt security or, if that day is not a business day, on the next succeeding business day, we may revoke the interest rate set forth in the extension notice sent by the paying agent to each holder and establish a higher interest rate for the extension period. If we elect to establish a higher interest rate, the paying agent will send a notice to each holder by first class mail, postage prepaid, or by other means agreed between us and the paying agent, of the higher interest rate in the case of a floating rate debt security, the higher spread and/or spread multiplier, if any. The notice of the higher rate cannot be revoked. All extendible debt securities as to which the maturity date has been extended will bear the higher rate for the extension period, whether or not tendered for repayment.

If we elect to extend the maturity date of an extendible debt security, each holder may elect repayment of all or part of its debt security on the maturity date then in effect at a price equal to the principal amount plus any accrued and unpaid interest to that date. To elect repayment, a holder must give notice to the paying agent between 25 and 35 days before the maturity date in effect. The notice must consist of either:

- the debt security along with the completed form entitled “Option to Elect Repayment,” which will be attached to your debt security.
- a telegram, facsimile transmission or letter from a member of a national securities exchange, the Financial Industry Regulatory Authority, Inc. or a commercial bank or trust company in the United States setting forth the name of the holder, the principal amount of the debt security, the principal amount of the debt security to be repaid, the certificate number or a description of the tenor and terms of the debt security, a statement that the option to elect repayment is being elected and a guarantee that the debt security, together with the completed form entitled “Option to Elect Repayment” will be received by the paying agent no later than the fifth business day after the date of the telegram, facsimile transmission or letter. The telegram, facsimile transmission or letter will become effective upon receipt, by that fifth business day, of the debt security and complete form.

The holder may revoke the election of repayment by sending to the paying agent written notice by 3:00 p.m., New York City time, on the twentieth day before the maturity date then in effect or, if that day is not a business day, on the next succeeding business day.

If an extendible debt security is represented by a global debt security, the depositary or its nominee, as the holder, will be the only person that can exercise the right to elect repayment or revoke such an election. Any indirect owners who own beneficial interests in the global debt security and wish to make such an election must give proper and timely instructions to the banks or brokers through which they hold their interests, requesting that they notify the depositary to make a repayment election or revoke such an election on their behalf. Different firms have different deadlines for accepting instructions from their customers, and you should take care to act promptly enough to ensure that your request is given effect by the depositary before the applicable deadline for exercise.

Redemption and Repayment

Unless otherwise indicated in your prospectus supplement, your debt security will not be entitled to the benefit of any sinking fund—that is, we will not deposit money on a regular basis into any separate custodial account to repay your debt securities. In addition, we will not be entitled to redeem your debt security before its stated maturity (except for certain tax reasons, as described below) unless your prospectus supplement specifies a redemption date or redemption commencement date. You will not be entitled to require us to buy your debt security from you, before its stated maturity, unless your prospectus supplement specifies one or more repayment dates.

If your prospectus supplement specifies one or more redemption dates, a redemption commencement date or a repayment date, it will also specify one or more redemption prices or repayment prices, which may be expressed as a percentage of the principal amount of your debt security. It may also specify one or more redemption periods during which the redemption prices relating to a redemption of debt securities during those periods will apply.

If your prospectus supplement specifies one or more redemption dates, your debt security will be redeemable at our option on any of those dates. If your prospectus supplement specifies a redemption commencement date, your debt security will be redeemable at our option at any time on or after that date. If we redeem your debt security, we will do so at the specified redemption price. If different prices are specified for different redemption periods, the price we pay will be the price that applies to the redemption period during which your debt security is redeemed.

If your prospectus supplement specifies a repayment date, your debt security will be repayable at your option on the specified repayment date at the specified repayment price, together with interest accrued to the repayment date.

If we exercise an option to redeem any debt security, we will give the trustee and the holders written notice of the principal amount of the debt security to be redeemed, not less than 5 business days nor more than 60 days before the applicable redemption date unless otherwise specified in your prospectus supplement. We will give the notice in the manner described below in “— Notices.”

If a debt security represented by a global debt security is subject to repayment at the holder’s option, the depositary or its nominee, as the holder, will be the only person that can exercise the right to repayment. Any indirect holders who own beneficial interests in the global debt security and wish to exercise a repayment right must give proper and timely instructions to the banks or brokers through which they hold their interests, requesting that they notify the depositary to exercise the repayment right on their behalf. Different firms have different deadlines for accepting instructions from their customers, and you should take care to act promptly enough to ensure that your request is given effect by the depositary before the applicable deadline for exercise.

Street name and other indirect holders should contact their banks or brokers for information about how to exercise a repayment right in a timely manner.

We or our affiliates may purchase debt securities from investors who are willing to sell from time to time, either in the open market at prevailing prices or in private transactions at negotiated prices. Debt securities that we or they purchase may, at our discretion, be held, resold or cancelled.

Optional Tax Redemption

In addition to the situations described above under “— Redemption and Repayment,” we also have the option to redeem the debt securities in two situations described below, unless otherwise indicated in your prospectus supplement. The redemption price for the debt securities, other than original issue discount debt securities, will be equal to the principal amount of the debt securities being redeemed plus accrued interest and any additional amounts due on the date fixed for redemption. The redemption price for original issue discount debt securities will be specified below. Furthermore, we must give you between 10 and 60 days’ notice before redeeming the debt securities unless otherwise specified in your prospectus supplement.

- The first situation is where, as a result of a change in, execution of or amendment to any laws or treaties or the official application or interpretation of any laws or treaties, we would be required to pay additional amounts as described below under “— Payment of Additional Amounts.”

This applies only in the case of changes, executions, amendments, applications or interpretations that occur on or after the date specified in the prospectus supplement for the applicable debt securities and in a relevant jurisdiction, as defined in “— Payment of Additional Amounts” below. If UBS is succeeded by another entity, the applicable jurisdiction will be the jurisdiction in which the successor entity is organized, and the applicable date will be the date the entity became a successor.

We would not have the option to redeem in this case if we could have avoided the payment of additional amounts or the deduction or withholding by using reasonable measures available to us.

- The second situation is where a person located outside of a relevant jurisdiction into which UBS is merged or to whom it has conveyed, transferred or leased its property is required to pay an additional amount. We would have the option to redeem the debt securities even if we are required to pay additional amounts immediately after the merger, conveyance, transfer or lease. We are not required to use reasonable measures to avoid the obligation to pay additional amounts in this situation.

Payment of Additional Amounts

A relevant jurisdiction may require UBS to withhold amounts from payments on the principal or interest on a debt security for taxes or any other governmental charges. If the relevant jurisdiction requires a withholding of this type, UBS may be required to pay you an additional amount so that the net amount you receive will be the amount specified in the debt security to which you are entitled.

By relevant jurisdiction, we mean Switzerland or a jurisdiction in which the UBS branch through which debt securities are issued is located. UBS will not have to pay additional amounts in respect of taxes or other governmental charges that are required to be deducted or withheld by any paying agent from a payment on a debt security, if such payment can be made without such deduction or withholding by any other paying agent, or in respect of taxes or other governmental charges that would not have been imposed but for

- the existence of any present or former connection between you and the relevant jurisdiction, other than the mere holding of the debt security and the receipt of payments on it;
- any estate, inheritance, gift, sales, transfer or personal property tax or any similar tax, duty, assessment or governmental charge;
- a failure to comply with any reasonable certification, documentation, information or other reporting requirement concerning your nationality, residence, identity or connection with the relevant jurisdiction, if such compliance is required as a precondition to relief or exemption from such taxes or other governmental charges (including, without limitation, a certification that you are not resident in the relevant jurisdiction or are not an individual resident of a member state of the European Union);
- any taxes which would not have been imposed but for your presentation, or a presentation on your behalf, of a debt security payment on a date more than 15 days after the date on which such payment on the debt security becomes due and payable or on which the payment is duly provided for, whichever occurs later; or
- any combination of the items listed above.

In addition, no additional amounts will be required to be paid on account of any deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the Internal Revenue Code (as defined below under “U.S. Tax Considerations”), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Internal Revenue Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Internal Revenue Code.

These provisions will also apply to any taxes or governmental charges imposed by any jurisdiction in which a successor to UBS is organized. The prospectus supplement relating to the debt security may describe additional circumstances in which UBS would not be required to pay additional amounts.

Mergers and Similar Transactions

We are generally permitted to merge or consolidate with another firm. We are also permitted to sell our assets substantially as an entirety to another firm. With regard to any series of debt securities, we may not take any of these actions, however, unless all the following conditions are met:

- If the successor firm in the transaction is not UBS, the successor firm must be organized as a corporation, partnership or trust and must expressly assume our obligations under the debt securities of that series and the debt indenture. The successor firm must be organized under the laws of Switzerland.
- Immediately after the transaction, no default under the debt securities of that series has occurred and is continuing. For this purpose, “default under the debt securities of that series” means an event of default with respect to that series or any event that would be an event of default with respect to that series if the requirements for giving us default notice and for our default having to continue for a specific period of time were disregarded. We describe these matters below under “— Default, Remedies and Waiver of Default.”

If the conditions described above are satisfied with respect to the debt securities of any series, we will not need to obtain the approval of the holders of those debt securities in order to merge or consolidate or to sell our assets. Also, these conditions will apply only if we wish to merge or consolidate with another firm or sell our assets substantially as an entirety to another firm. We will not need to satisfy these conditions if we enter into other types of transactions, including any transaction in which we acquire the stock or assets of another firm, any transaction that involves a change of control of UBS but in which we do not merge or consolidate and any transaction in which we sell less than substantially all our assets.

Also, if we merge, consolidate or sell our assets substantially as an entirety and the successor firm is a non-Swiss entity, neither we nor any successor would have any obligation to compensate you for any resulting adverse tax consequences to the debt securities.

Defeasance and Covenant Defeasance

If indicated in the applicable prospectus supplement for a debt security, the provisions for full defeasance and covenant defeasance described below will apply to that debt security. In general, we expect these provisions to apply to each debt security that has a specified currency of U.S. dollars and is not a floating rate or indexed debt security.

Full Defeasance

If there is a change in U.S. federal tax law, as described below, we can legally release ourselves from all payment and other obligations on your debt security. This is called full defeasance. To do so, each of the following must occur:

- We must deposit in trust for the benefit of all holders of those debt securities, money, U.S. government or U.S. government agency notes or bonds or a combination of money and U.S. government or U.S. government agency notes or bonds that will, in each case, in the opinion of a nationally recognized firm of independent public accountants, generate enough cash to make interest, principal and any other payments on those debt securities on their various due dates.

- There must be a change in current U.S. federal tax law or an Internal Revenue Service ruling that lets us make the above deposit without causing the holders to be taxed on those debt securities any differently than if we did not make the deposit and just repaid the debt securities ourselves. Under current federal tax law, the deposit and our legal release from your debt securities would be treated as though we took back your debt security and gave you your share of the cash and notes or bonds deposited in trust. In that event, you could recognize gain or loss on your debt security.
- We must deliver to the trustee a legal opinion of our counsel confirming the tax law change described above.

If we ever fully defease your debt security, you would have to rely solely on the trust deposit for payments on your debt security. You would not be able to look to us for payment in the event of any shortfall.

Covenant Defeasance

Under current U.S. federal tax law, we can make the same type of deposit described above and be released from any restrictive covenants relating to your debt security that may be described in your prospectus supplement. This is called covenant defeasance. In that event, you would lose the protection of those restrictive covenants. In order to achieve covenant defeasance for any debt securities, we must do both of the following:

- We must deposit in trust for the benefit of all holders of those debt securities, money, U.S. government or U.S. government agency notes or bonds or a combination of money and U.S. government or U.S. government agency notes or bonds that will, in each case, in the opinion of a nationally recognized firm of independent public accountants, generate enough cash to make interest, principal and any other payments on those debt securities on their various due dates.
- We must deliver to the trustee a legal opinion of our counsel confirming that under U.S. federal income tax law as then in effect we may make the above deposit without causing you to be taxed on those debt securities any differently than if we did not make the deposit and just repaid those debt securities ourselves.

If we accomplish covenant defeasance with regard to your debt security, the following provisions of the debt indenture and your debt security would no longer apply:

- Any covenants that your prospectus supplement may state are applicable to your debt security; and
- The events of default resulting from a breach of covenants, described below in the fourth bullet point under “— Default, Remedies and Waiver of Default — Events of Default.”

Any right we have to redeem will survive covenant defeasance with regard to those debt securities.

If we accomplish covenant defeasance on your debt security, you can still look to us for repayment of your debt security in the event of any shortfall in the trust deposit. You should note, however, that if one of the remaining events of default occurred, such as our bankruptcy, and your debt security became immediately due and payable, there may be a shortfall. Depending on the event causing the default you may not be able to obtain payment of the shortfall.

Default, Remedies and Waiver of Default

You will have special rights if an event of default with respect to your series of debt securities occurs and is not cured, as described in this subsection.

Events of Default

Unless your prospectus supplement says otherwise, when we refer to an event of default with respect to any series of debt securities, we mean any of the following:

- We do not pay the principal or any premium (including delivering any security or other property deliverable) on any debt security of that series at its maturity;
- We do not pay interest on any debt securities of that series within 30 days after it becomes due and payable;
- We do not deposit a sinking fund payment with regard to any debt securities of that series on its due date, but only if the payment is required in the applicable prospectus supplement;
- We remain in breach of any other covenant we make in the debt indenture for the benefit of the debt securities of that series, for 60 days after we receive a notice of default stating that we are in breach and requiring us to remedy the breach. The notice must be sent by the trustee or the holders of not less than 10% in principal amount of the relevant series of debt securities then outstanding;
- We file for bankruptcy or certain other bankruptcy, insolvency or reorganization events relating to UBS occur; or
- If the applicable prospectus supplement states that any additional event of default applies to your series, that event of default occurs.

Remedies If an Event of Default Occurs

If an event of default has occurred with respect to any series of debt securities and has not been cured or waived, the trustee or the holders of not less than 25% in principal amount of all debt securities of that series then outstanding may declare the entire principal amount of the debt securities of that series to be due immediately. If an event of default occurs because of bankruptcy, insolvency or reorganization events relating to UBS, the entire principal amount of the debt securities of that series will be automatically accelerated, without any action by the trustee or any holder.

Each of the situations described above is called an acceleration of the maturity of the affected series of debt securities. If the maturity of any series is accelerated and a judgment for payment has not yet been obtained, the holders of a majority in principal amount of the debt securities of that series may cancel the acceleration for the entire series.

If an event of default occurs, the trustee will have special duties. The trustee will be obligated to use those of its rights and powers under the debt indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Except as described in the prior paragraph, the trustee is not required to take any action under the debt indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an indemnity. If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of all debt securities of the relevant series may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee with respect to that series. These majority holders may also direct the trustee in performing any other action under the debt indenture with respect to the debt securities of that series.

Before you bypass the trustee and bring your own lawsuit or other formal legal action or take other steps to enforce your rights or protect your interests relating to any debt security, all of the following must occur:

- The holder of your debt security must give the trustee written notice that an event of default has occurred, and the event of default must not have been cured or waived.
- The holders of not less than 25% in principal amount of all debt securities of your series must make a written request that the trustee take action because of the default, and they or other holders must offer to the trustee indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.
- The trustee must not have taken action for 60 days after the above steps have been taken.
- During those 60 days, the holders of a majority in principal amount of the debt securities of your series must not have given the trustee directions that are inconsistent with the written request of the holders of not less than 25% in principal amount of all debt securities of your series.

You are, however, entitled at any time to bring a lawsuit for the payment of money due on your debt security on or after its due date.

Waiver of Default

The holders of not less than a majority in principal amount of the debt securities of any series may waive a default for all debt securities of that series. If this happens, the default will be treated as if it has not occurred. No one can waive a payment default on your debt security, however, without the approval of the particular holder of that debt security.

We Will Give the Trustee Information About Defaults Annually

We will furnish to the trustee every year a written statement of two of our officers certifying that to their knowledge we are in compliance with the debt indenture and the debt securities, or else specifying any default under the debt indenture.

Book-entry and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to declare or cancel an acceleration of the maturity of the debt securities. Book-entry and other indirect owners are described below under “Legal Ownership and Book-Entry Issuance.”

Modification and Waiver of Covenants

There are three types of changes we can make to the debt indenture and the debt securities of any series.

Changes Requiring Each Holder's Approval

First, there are changes that cannot be made without the approval of each holder of a debt security affected by the change. Here is a list of those types of changes:

- change the stated maturity for any principal or interest payment on a debt security;
- reduce the principal amount, the amount payable on acceleration of the maturity after a default, the interest rate or the redemption price for a debt security;
- permit redemption of a debt security if not previously permitted;
- impair any right a holder may have to require repayment of his or her debt security;
- impair any right that a holder of an indexed or any other debt security may have to exchange or convert the debt security for or into securities or other property;
- change the currency of any payment on a debt security other than as permitted by the debt security;
- change the place of payment on a debt security, if it is in non-global form;
- impair a holder's right to sue for payment of any amount due on his or her debt security;

- reduce the percentage in principal amount of the debt securities of any one or more affected series, taken separately or together, as applicable, the approval of whose holders is needed to change the debt indenture or those debt securities;
- reduce the percentage in principal amount of the debt securities of any one or more affected series, taken separately or together, as applicable, the consent of whose holders is needed to waive our compliance with the debt indenture or to waive defaults; and
- change the provisions of the debt indenture dealing with modification and waiver in any other respect, except to increase any required percentage referred to above or to add to the provisions that cannot be changed or waived without approval of the holder of each affected debt security.

Changes Not Requiring Approval of Holders

The second type of change does not require any approval by holders of the debt securities of an affected series. This type of change is limited to clarifications and changes that would not adversely affect the debt securities of that series in any material respect. We also do not need any approval to make changes that affect only debt securities to be issued under the debt indenture after the changes take effect.

We may also make changes or obtain waivers that do not adversely affect a particular debt security, even if they affect other debt securities. In those cases, we do not need to obtain the approval of the holder of the unaffected debt security; we need only obtain any required approvals from the holders of the affected debt securities.

Changes Requiring Majority Approval

Any other change to the debt indenture and the debt securities would require the following approval:

- If the change affects only the debt securities of a particular series, it must be approved by the holders of 66 $\frac{2}{3}$ % in principal amount of the debt securities of that series.
- If the change affects the debt securities of more than one series of debt securities issued under the debt indenture, it must be approved by the holders of 66 $\frac{2}{3}$ % in principal amount of all series affected by the change, with the debt securities of all the affected series voting together as one class for this purpose (and of any affected series that by its terms is entitled to vote separately as a series, as described below).

In each case, the required approval must be given by written consent.

Majority approval would be required for us to obtain a waiver of any of our covenants in the debt indenture. Our covenants include the promises we make about merging, which we describe above under “— Mergers and Similar Transactions.” If the holders approve a waiver of a covenant, we will not have to comply with that covenant. The holders, however, cannot approve a waiver of any provision in a particular debt security, or in the debt indenture as it affects that debt security, that we cannot change without the approval of the holder of that debt security as described above under “— Changes Requiring Each Holder’s Approval,” unless that holder approves the waiver.

Book-entry and other indirect holders should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the debt indenture or the debt securities or request a waiver.

Special Rules for Action by Holders

When holders take any action under the debt indenture, such as giving a notice of default, declaring an acceleration, approving any change or waiver or giving the trustee an instruction, we will apply the following rules.

Only Outstanding Debt Securities Are Eligible

Only holders of outstanding debt securities of the applicable series will be eligible to participate in any action by holders of debt securities of that series. Also, we will count only outstanding debt securities in determining whether the various percentage requirements for taking action have been met. For these purposes, a debt security will not be “outstanding”:

- if it has been surrendered for cancellation;
- if we have deposited or set aside, in trust for its holder, money for its payment or redemption;
- if we have fully defeased it as described above under “— Defeasance and Covenant Defeasance — Full Defeasance”; or
- if we or one of our affiliates, such as UBS Securities LLC or UBS Financial Services Inc., is the beneficial owner.

Special Series Voting Rights

We may issue series of debt securities that are entitled, by their terms, to vote separately on matters (for example, modification or waiver of provisions in the debt indenture) that would otherwise require a vote of all affected series, voting together as a single class. Any such series would be entitled to vote together with all other affected series, voting together as one class, and would also be entitled to vote separately, as a series only. These special voting rights will be described in the applicable prospectus supplement. For a series that does not have these special rights, voting will occur as described in the preceding section, but subject to any separate voting rights of any series having special rights. We may issue a series having these or other special voting rights without obtaining the consent of or giving notice to holders of outstanding series.

Eligible Principal Amount of Some Debt Securities

In some situations, we may follow special rules in calculating the principal amount of a debt security that is to be treated as outstanding for the purposes described above. This may happen, for example, if the principal amount is payable in a non-U.S. dollar currency, increases over time or is not to be fixed until maturity. For any debt security of the kind described below, we will decide how much principal amount to attribute to the debt security as follows:

- For an original issue discount debt security, we will use the principal amount that would be due and payable on the action date if the maturity of the debt security were accelerated to that date because of a default.
- For a debt security whose principal amount is not known, we will use any amount that we indicate in the prospectus supplement for that debt security. The principal amount of a debt security may not be known, for example, because it is based on an index that changes from time to time and the principal amount is not to be determined until a later date.
- For debt securities with a principal amount denominated in one or more non-U.S. dollar currencies or currency units, we will use the U.S. dollar equivalent, which we will determine.

Determining Record Dates for Action by Holders

We will generally be entitled to set any day as a record date for the purpose of determining the holders that are entitled to take action under the debt indenture. In certain limited circumstances, only the trustee will be entitled to set a record date for action by holders. If we or the trustee set a record date for an approval or other action to be taken by holders, that vote or action may be taken only by persons or entities who are holders on the record date and must be taken during the period that we specify for this purpose, or that the trustee specifies if it sets the record date. We or the trustee, as applicable, may shorten or lengthen this period from time to time. This period, however, may not extend beyond the 180th day after the record date for the action. In addition, record dates for any global debt security may be set in accordance with procedures established by the depository from time to time. Accordingly, record dates for global debt securities may differ from those for other debt securities.

Form, Exchange and Transfer of Debt Securities

We will issue each debt security in global — *i.e.*, book-entry — form only, unless we specify otherwise in the applicable prospectus supplement. Debt securities in book-entry form will be represented by a global security registered in the name of a depository, which will be the holder of all the debt securities represented by the global security. Those who own beneficial interests in a global debt security will do so through participants in the depository's securities clearance system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depository and its participants. We describe book-entry securities below under "Legal Ownership and Book-Entry Issuance." Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depository for all debt securities in global form.

In addition, we will generally issue each debt security in registered form, without coupons, unless we specify otherwise in the applicable prospectus supplement. If we issue a debt security in bearer form, the applicable prospectus supplement will describe the provisions that would apply to that security.

If a debt security is issued as a global debt security, only the depository — *e.g.*, DTC, Euroclear and Clearstream — will be entitled to transfer and exchange the debt security or exercise any other rights of a holder as described in this subsection, since the depository will be the sole holder of the debt security.

If any debt securities cease to be issued in global form, then unless we indicate otherwise in your prospectus supplement, they will be issued:

- only in fully registered form;
- without interest coupons; and
- unless we indicate otherwise in your prospectus supplement, in denominations of \$1,000 and integral multiples of \$1,000.

Holders may exchange their debt securities for debt securities of smaller denominations (subject to the limit above) or combined into fewer debt securities of larger denominations, as long as the total principal amount is not changed. You may not exchange your debt securities for securities of a different series or having different terms, unless your prospectus supplement says you may.

Holders may exchange or transfer their debt securities at the office of the trustee. They may also replace lost, stolen, destroyed or mutilated debt securities at that office. We have appointed the trustee to act as our agent for registering debt securities in the names of holders and transferring and replacing debt securities. We may appoint another entity to perform these functions or perform them ourselves.

Holders will not be required to pay a service charge to transfer or exchange their debt securities, but they may be required to pay for any tax or other governmental charge associated with the exchange or transfer. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may require an indemnity before replacing any debt securities.

If we have designated additional transfer agents for your debt security, they will be named in your prospectus supplement. We may appoint additional transfer agents or cancel the appointment of any particular transfer agent. We may also approve a change in the office through which any transfer agent acts.

If the debt securities of any series are redeemable and we redeem less than all those debt securities, we may block the transfer or exchange of those debt securities during the period beginning 15 days before the day we mail the notice of redemption and ending on the day of that mailing or during any other period specified in the applicable prospectus supplement, in order to freeze the list of holders who will receive the mailing. We may also refuse to register transfers of or exchange any debt security selected for redemption, except that we will continue to permit transfers and exchanges of the unredeemed portion of any debt security being partially redeemed.

The rules for exchange described above apply to exchanges of debt securities for other debt securities of the same series and kind. If a debt security is convertible, exercisable or exchangeable into or for a different kind of security, such as one that we have not issued, or for other property, the rules governing that type of conversion, exercise or exchange will be described in the applicable prospectus supplement.

Payment Mechanics for Debt Securities

Who Receives Payments?

If interest is due on a debt security on an interest payment date, we will pay the interest to the person in whose name the debt security is registered at the close of business on the regular record date described below relating to the interest payment date. If interest is due at maturity but on a day that is not an interest payment date, we will pay the interest to the person entitled to receive the principal of the debt security. If principal or another amount besides interest is due on a debt security at maturity, we will pay the amount to the holder of the debt security against surrender of the debt security at a proper place of payment (or, in the case of a global debt security, in accordance with the applicable policies of the depository).

Payment Dates and Regular Record Dates for Interest

Unless we specify otherwise in the applicable prospectus supplement, interest on any fixed rate debt security will be payable semiannually each May 15 and November 15 and at maturity, and the regular record date relating to an interest payment date for any fixed rate debt security will be the May 1 or November 1 next preceding that interest payment date. The regular record date relating to an interest payment date for any floating rate debt security will be the 15th calendar day before that interest payment date. These record dates will apply whether or not a particular record date is a business day. For the purpose of determining the holder at the close of business on a regular record date when business is not being conducted, the close of business will mean 5:00 P.M., New York City time, on that day.

The term “business day” means, for any debt security, a day that meets all the following applicable requirements:

- for all debt securities, is a Monday, Tuesday, Wednesday, Thursday or Friday that is not a day on which banking institutions in New York City generally are authorized or obligated by law, regulation or executive order to close and that satisfies any other criteria specified in your prospectus supplement;
- if the debt security is a floating rate debt security whose interest rate is based on LIBOR, is also a day on which dealings in the relevant index currency specified in the applicable prospectus supplement are transacted in the London interbank market;
- if the debt security is a floating rate debt security whose interest rate is based on SOFR, is also any day except for a Saturday, a Sunday or a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities;
- if the debt security has a specified currency other than U.S. dollars or euros, is also a day on which banking institutions are not authorized or obligated by law, regulation or executive order to close in the principal financial center of the country issuing the specified currency;
- if the debt security either is a floating rate debt security whose interest rate is based on EURIBOR or has a specified currency of euros, is also a day on which the Trans-European Automated Real-time Gross settlement Express Transfer (TARGET) System, or any successor system, is open for business;
- if the debt security is held through Euroclear, is also not a day on which banking institutions in Brussels, Belgium are generally authorized or obligated by law, regulation or executive order to close; and
- if the debt security is held through Clearstream, is also not a day on which banking institutions in Luxembourg are generally authorized or obligated by law, regulation or executive order to close.

How We Will Make Payments Due in U.S. Dollars

We will follow the practices described in this subsection when paying amounts due in U.S. dollars. Payments of amounts due in other currencies will be made as described in the next subsection.

Payments on Global Debt Securities. We will make payments on a global debt security in accordance with the applicable policies of the depository as in effect from time to time. Under those policies, we will pay directly to the depository, or its nominee, and not to any indirect owners who own beneficial interests in the global debt security. An indirect owner’s right to receive those payments will be governed by the rules and practices of the depository and its participants, as described under “Legal Ownership and Book-Entry Issuance — What Is a Global Security?”

Payments on Non-Global Debt Securities. We will make payments on a debt security in non-global, registered form as follows. We will pay interest that is due on an interest payment date by check mailed on the interest payment date to the holder at his or her address shown on the trustee’s records as of the close of business on the regular record date. We will make all other payments by check at the paying agent described below, against surrender of the debt security. All payments by check will be made in next-day funds — that is, in funds that become available on the day after the check is cashed.

Alternatively, if a non-global debt security has a face amount of at least \$1,000,000 and the holder asks us to do so, we will pay any amount that becomes due on the debt security by wire transfer of immediately available funds to an account at a bank in New York City, on the due date. To request wire payment, the holder must give the paying agent appropriate wire transfer instructions at least five business days before the requested wire payment is due. In the case of any interest payment due on an interest payment date, the instructions must be given by the person who is the holder on the relevant regular record date. In the case of any other payment, payment will be made only after the debt security is surrendered to the paying agent. Any wire instructions, once properly given, will remain in effect unless and until new instructions are given in the manner described above.

Book-entry and other indirect owners should consult their banks or brokers for information on how they will receive payments on their debt securities.

How We Will Make Payments Due in Other Currencies

We will follow the practices described in this subsection when paying amounts that are due in a specified currency other than U.S. dollars.

Payments on Global Debt Securities. We will make payments on a global debt security in accordance with the applicable policies of the depository as in effect from time to time. We understand that these policies, as currently in effect at DTC, are as follows:

Unless otherwise indicated in your prospectus supplement, if you are an indirect owner of global debt securities denominated in a specified currency other than U.S. dollars and if you have the right to elect to receive payments in that other currency and you do make that election, you must notify the participant through which your interest in the global debt security is held of your election:

- on or before the applicable regular record date, in the case of a payment of interest, or
- on or before the 16th day prior to stated maturity, or any redemption or repayment date, in the case of payment of principal or any premium.

You may elect to receive all or only a portion of any interest, principal or premium payment in a specified currency other than U.S. dollars.

Your participant must, in turn, notify DTC of your election on or before the third DTC business day after that regular record date, in the case of a payment of interest, and on or before the 12th DTC business day prior to stated maturity, or on the redemption or repayment date if your debt security is redeemed or repaid earlier, in the case of a payment of principal or any premium.

DTC, in turn, will notify the paying agent of your election in accordance with DTC's procedures.

If complete instructions are received by the participant and forwarded by the participant to DTC, and by DTC to the paying agent, on or before the dates noted above, the paying agent, in accordance with DTC's instructions, will make the payments to you or your participant by wire transfer of immediately available funds to an account maintained by you or your participant with a bank located in the country issuing the specified currency or in another jurisdiction acceptable to us and the paying agent.

If the foregoing steps are not properly completed, we expect DTC to inform the paying agent that payment is to be made in U.S. dollars. In that case, we or our agent will convert the payment to U.S. dollars in the manner described below under "— Conversion to U.S. Dollars." We expect that we or our agent will then make the payment in U.S. dollars to DTC, and that DTC in turn will pass it along to its participants.

Book-entry and other indirect holders of a global debt security denominated in a currency other than U.S. dollars should consult their banks or brokers for information on how to request payment in the specified currency.

Payments on Non-Global Debt Securities. Except as described in the second to last paragraph under this heading, we will make payments on debt securities in non-global form in the applicable specified currency. We will make these payments by wire transfer of immediately available funds to any account that is maintained in the applicable specified currency at a bank designated by the holder and is acceptable to us and the trustee. To designate an account for wire payment, the holder must give the paying agent appropriate wire instructions at least five business days before the requested wire payment is due. In the case of any interest payment due on an interest payment date, the instructions must be given by the person who is the holder on the regular record date. In the case of any other payment, the payment will be made only after the debt security is surrendered to the paying agent. Any instructions, once properly given, will remain in effect unless and until new instructions are properly given in the manner described above.

If a holder fails to give instructions as described above, we will notify the holder at the address in the trustee's records and will make the payment within five business days after the holder provides appropriate instructions. Any late payment made in these circumstances will be treated under the debt indenture as if made on the due date, and no interest will accrue on the late payment from the due date to the date paid.

Although a payment on a debt security in non-global form may be due in a specified currency other than U.S. dollars, we will make the payment in U.S. dollars if the holder asks us to do so. To request U.S. dollar payment, the holder must provide appropriate written notice to the trustee at least five business days before the next due date for which payment in U.S. dollars is requested. In the case of any interest payment due on an interest payment date, the request must be made by the person who is the holder on the regular record date. Any request, once properly made, will remain in effect unless and until revoked by notice properly given in the manner described above.

Indirect owners of a non-global debt security with a specified currency other than U.S. dollars should contact their banks or brokers for information about how to receive payments in the specified currency or in U.S. dollars.

Conversion to U.S. Dollars. When we are asked by a holder to make payments in U.S. dollars of an amount due in another currency, either on a global debt security or a non-global debt security as described above, we will determine the U.S. dollar amount the holder receives as follows. The exchange rate agent described below will request currency bid quotations expressed in U.S. dollars from three or, if three are not available, then two, recognized foreign exchange dealers in New York City, any of which may be the exchange rate agent, which may be UBS Securities LLC, an affiliate of UBS, as of 11:00 A.M., New York City time, on the second business day before the payment date. Currency bid quotations will be requested on an aggregate basis, for all holders of debt securities requesting U.S. dollar payments of amounts due on the same date in the same specified currency. The U.S. dollar amount the holder receives will be based on the highest acceptable currency bid quotation received by the exchange rate agent. If the exchange rate agent determines that at least two acceptable currency bid quotations are not available on that second business day, the payment will be made in the specified currency.

To be acceptable, a quotation must be given as of 11:00 A.M., New York City time, on the second business day before the due date and the quoting dealer must commit to execute a contract at the quotation in the total amount due in that currency on all series of debt securities. If some but not all of the relevant debt securities are LIBOR debt securities, SOFR debt securities or EURIBOR debt securities, the second preceding business day will be determined for this purpose as if none of those debt securities were LIBOR debt securities, SOFR debt securities or EURIBOR debt securities.

A holder that requests payment in U.S. dollars will bear all associated currency exchange costs, which will be deducted from the payment.

When the Specified Currency Is Not Available. If we are obligated to make any payment in a specified currency other than U.S. dollars, and the specified currency or any successor currency is not available to us or cannot be paid to you due to circumstances beyond our control — such as the imposition of exchange controls or a disruption in the currency markets — we will be entitled to satisfy our obligation to make the payment in that specified currency by making the payment in U.S. dollars, on the basis specified in the applicable prospectus supplement.

For a specified currency other than U.S. dollars, the exchange rate will be the noon buying rate for cable transfers of the specified currency in New York City as quoted by the Federal Reserve Bank of New York on the then-most recent day on which that bank has quoted that rate.

The foregoing will apply to any debt security, whether in global or non-global form, and to any payment, including a payment at maturity. Any payment made under the circumstances and in a manner described above will not result in a default under any debt security or the debt indenture.

Exchange Rate Agent. If we issue a debt security in a specified currency other than U.S. dollars, we will appoint a financial institution to act as the exchange rate agent and will name the institution initially appointed when the debt security is originally issued in the applicable prospectus supplement. We may select UBS Securities LLC or another of our affiliates to perform this role. We may change the exchange rate agent from time to time after the original issue date of the debt security without your consent and without notifying you of the change.

All determinations made by the exchange rate agent will be at its sole discretion unless we state in your prospectus supplement that any determination is subject to our approval. In the absence of manifest error, those determinations will be conclusive for all purposes and binding on you and us, without any liability on the part of the exchange rate agent.

Payment When Offices Are Closed

If any payment is due on a debt security on a day that is not a business day, we will make the payment on the next day that is a business day. Unless specified otherwise in the applicable prospectus supplement, payments postponed to the next business day in this situation will be treated under the debt indenture as if they were made on the original due date. Postponement of this kind will not result in a default under any debt security or the debt indenture, and no interest will accrue on the postponed amount from the original due date to the next day that is a business day. The term business day has a special meaning, which we describe above under “— Payment Dates and Regular Record Dates for Interest.”

Paying Agent

We may appoint one or more financial institutions to act as our paying agents, at whose designated offices debt securities in non-global entry form may be surrendered for payment at their maturity. We call each of those offices a paying agent. We may add, replace or terminate paying agents from time to time. We may also choose to act as our own paying agent. Initially, we have appointed the trustee, at its corporate trust office in New York City, as the paying agent. We must notify the trustee of changes in the paying agents.

Settlement Mechanics

The settlement mechanics applicable to debt securities calling for physical settlement will be described in the applicable prospectus supplement.

Unclaimed Payments

Regardless of who acts as paying agent, all money paid by us to a paying agent that remains unclaimed at the end of two years after the amount is due to a holder will be repaid to us. After that two-year period, the holder may look only to us for payment and not to the trustee, any other paying agent or anyone else.

Notices

Notices to be given to holders of a global debt security will be given only to the depositary, in accordance with its applicable policies as in effect from time to time. Notices to be given to holders of debt securities not in global form will be sent by mail to the respective addresses of the holders as they appear in the trustee's records, and will be deemed given when mailed. Neither the failure to give any notice to a particular holder, nor any defect in a notice given to a particular holder, will affect the sufficiency of any notice given to another holder.

Book-entry and other indirect holders should consult their banks or brokers for information on how they will receive notices.

Our Relationship with the Trustee

U.S. Bank Trust National Association has provided commercial banking and other services for us and our affiliates in the past and may do so in the future. Among other things, U.S. Bank Trust National Association holds debt securities issued by us and serves as trustee or agent with regard to other obligations of UBS or its subsidiaries.

U.S. Bank Trust National Association is serving as the trustee for the debt securities and the warrants issued under our warrant indenture. Consequently, if an actual or potential event of default occurs with respect to any of these securities, the trustee may be considered to have a conflicting interest for purposes of the Trust Indenture Act of 1939. In that case, the trustee may be required to resign under one or more of the indentures, and we would be required to appoint a successor trustee. For this purpose, a "potential" event of default means an event that would be an event of default if the requirements for giving us default notice or for the default having to exist for a specific period of time were disregarded.

Legal Ownership and Book-Entry Issuance

In this section, we describe special considerations that will apply to registered securities issued in global — i.e., book-entry — form. First we describe the difference between legal ownership and indirect ownership of registered securities. Then we describe special provisions that apply to global securities.

Who is The Legal Owner of a Registered Security?

Each debt security or warrant in registered form will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. We refer to those who have securities registered in their own names, on the books that we or the trustee, warrant agent or other agent maintain for this purpose, as the "holders" of those securities. These persons are the legal holders of the securities. We refer to those who, indirectly through others, own beneficial interests in securities that are not registered in their own names as indirect owners of those securities. As we discuss below, indirect owners are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect owners.

Book-Entry Owners

We will issue each security in book-entry form only. This means securities will be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary's book-entry system. These participating institutions, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Under each indenture or warrant agreement, only the person in whose name a security is registered is recognized as the holder of that security. Consequently, for securities issued in global form, we will recognize only the depositary as the holder of the securities and we will make all payments on the securities, including deliveries of any property other than cash, to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary's book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect owners, and not holders, of the securities.

Street Name Owners

In the future we may terminate a global security or issue securities initially in non-global form. In these cases, investors may choose to hold their securities in their own names or in street name. Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities and we will make all payments on those securities, including deliveries of any property other than cash, to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect owners, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of the trustee and the obligations, if any, of any warrant agents and any other third parties employed by us, the trustee or any of those agents, run only to the holders of the securities. We do not have obligations to investors who hold indirect interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect owner of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for that payment or notice even if that holder is required, under agreements with depository participants or customers or by law, to pass it along to the indirect owners but does not do so. Similarly, if we want to obtain the approval of the holders for any purpose — for example, to amend the indenture for a series of debt securities or warrants or the warrant agreement for a series of warrants or to relieve us of the consequences of a default or of our obligation to comply with a particular provision of the indenture — we would seek the approval only from the holders, and not the indirect owners, of the relevant securities. Whether and how the holders contact the indirect owners is up to the holders.

When we refer to “you” in this prospectus, we mean those who invest in the securities being offered by this prospectus, whether they are the holders or only indirect owners of those securities. When we refer to “your securities” in this prospectus, we mean the securities in which you will hold a direct or indirect interest.

Special Considerations for Indirect Owners

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- whether and how you can instruct it to exercise any rights to purchase or sell warrant property under a warrant or to exchange or convert a security for or into other property;
- how it would handle a request for the holders’ consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depository’s rules and procedures will affect these matters.

What Is a Global Security?

We will issue each security in book-entry form only. Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of one or more financial institutions or clearing systems, or their nominees, which we select. A financial institution or clearing system that we select for any security for this purpose is called the “depository” for that security. A security will usually have only one depository but it may have more.

Each series of securities will have one or more of the following as the depositaries:

- The Depository Trust Company, New York, New York, which is known as “DTC”;
- a financial institution holding the securities on behalf of Morgan Guaranty Trust Company of New York, acting out of its Brussels, Belgium, office, as operator of the Euroclear system, which is known as “Euroclear”;
- a financial institution holding the securities on behalf of Clearstream Banking, société anonyme, which is known as “Clearstream”; and

- any other clearing system or financial institution named in the applicable prospectus supplement. The depositaries named above may also be participants in one another's systems. Thus, for example, if DTC is the depositary for a global security, investors may hold beneficial interests in that security through Euroclear or Clearstream, as DTC participants.

The depositary or depositaries for your securities will be named in your prospectus supplement; if none is named, the depositary will be DTC.

A global security may represent one or any other number of individual securities. Generally, all securities represented by the same global security will have the same terms. We may, however, issue a global security that represents multiple securities of the same kind, such as debt securities, that have different terms and are issued at different times. We call this kind of global security a master global security. Your prospectus supplement will not indicate whether your securities are represented by a master global security.

A global security may not be transferred to or registered in the name of anyone other than the depositary or its nominee, unless special termination situations arise. We describe those situations below under “— Holder's Option to Obtain a Non-Global Security; Special Situations When a Global Security Will Be Terminated.” As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only indirect interests in a global security. Indirect interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect owner of an interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. We describe the situations in which this can occur below under “— Holder's Option to Obtain a Non-Global Security; Special Situations When a Global Security Will Be Terminated.” If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations for Global Securities

As an indirect owner, an investor's rights relating to a global security will be governed by the account rules of the depositary and those of the investor's financial institution or other intermediary through which it holds its interest (such as Euroclear or Clearstream, if DTC is the depositary), as well as general laws relating to securities transfers. We do not recognize this type of investor or any intermediary as a holder of securities and instead deal only with the depositary that holds the global security. If securities are issued only in the form of a global security, an investor should be aware of the following:

- An investor cannot require the securities to be registered in his or her own name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below.
- An investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above under “— Who Is the Legal Owner of a Registered Security?”
- An investor may not be able to sell interests in the securities to some insurance companies and other institutions that are required by law to own their securities in non-book-entry form.
- An investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective.
- The depositary's policies will govern payments, deliveries, transfers, exchanges, notices and other matters relating to an investor's interest in a global security, and those policies may change from time to time. We, the trustee and any warrant agents will have no responsibility for any aspect of the depositary's policies, actions or records of ownership interests in a global security. We, the trustee and any warrant agents also do not supervise the depositary in any way.
- The depositary will require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds and your broker or bank may require you to do so as well.

- Financial institutions that participate in the depository’s book-entry system and through which an investor holds its interest in the global securities, directly or indirectly, may also have their own policies affecting payments, deliveries, transfers, exchanges, notices and other matters relating to the securities, and those policies may change from time to time. For example, if you hold an interest in a global security through Euroclear or Clearstream, when DTC is the depository, Euroclear or Clearstream, as applicable, will require those who purchase and sell interests in that security through them to use immediately available funds and comply with other policies and procedures, including deadlines for giving instructions as to transactions that are to be effected on a particular day. There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the policies or actions or records of ownership interests of any of those intermediaries.

Holder’s Option to Obtain a Non-Global Security; Special Situations When a Global Security Will Be Terminated

If we issue any series of securities in book-entry form but we choose to give the beneficial owners of that series the right to obtain non-global securities, any beneficial owner entitled to obtain non-global securities may do so by following the applicable procedures of the depository, any transfer agent or registrar for that series and that owner’s bank, broker or other financial institution through which that owner holds its beneficial interest in the securities. If you are entitled to request a non- global certificate and wish to do so, you will need to allow sufficient lead time to enable us or our agent to prepare the requested certificate.

In addition, in a few special situations described below, a global security will be terminated and interests in it will be exchanged for certificates in non-global form representing the securities it represented. After that exchange, the choice of whether to hold the securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in a global security transferred on termination to their own names, so that they will be holders. We have described the rights of holders and street name investors above under “— Who Is the Legal Owner of a Registered Security?”

The special situations for termination of a global security are as follows:

- if the depository notifies us that it is unwilling, unable or no longer qualified to continue as depository for that global security and we do not appoint another institution to act as depository within 60 days; or
- in the case of a global security representing debt securities or warrants issued under an indenture, if an event of default has occurred with regard to these debt securities or warrants and has not been cured or waived.

If a global security is terminated, only the depository, and not we, the trustee for any debt securities or warrants or the warrant agent for any warrants, is responsible for deciding the names of the institutions in whose names the securities represented by the global security will be registered and, therefore, who will be the holders of those securities.

Considerations Relating to Euroclear and Clearstream

Euroclear and Clearstream are securities clearance systems in Europe. Both systems clear and settle securities transactions between their participants through electronic, book-entry delivery of securities against payment.

Euroclear and Clearstream may be depositories for a global security. In addition, if DTC is the depository for a global security, Euroclear and Clearstream may hold interests in the global security as participants in DTC.

As long as any global security is held by Euroclear or Clearstream as depository, you may hold an interest in the global security only through an organization that participates, directly or indirectly, in Euroclear or Clearstream. If Euroclear or Clearstream is the depository for a global security and there is no depository in the United States, you will not be able to hold interests in that global security through any securities clearance system in the United States.

Payments, deliveries, transfers, exchanges, notices and other matters relating to the securities made through Euroclear or Clearstream must comply with the rules and procedures of those systems. Those systems could change their rules and procedures at any time. We have no control over those systems or their participants and we take no responsibility for their activities. Transactions between participants in Euroclear or Clearstream, on one hand, and participants in DTC, on the other hand, when DTC is the depository, would also be subject to DTC’s rules and procedures.

Special Timing Considerations for Transactions in Euroclear and Clearstream

Investors will be able to make and receive through Euroclear and Clearstream payments, deliveries, transfers, exchanges, notices and other transactions involving any securities held through those systems only on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

In addition, because of time-zone differences, U.S. investors who hold their interests in the securities through these systems and wish to transfer their interests, or to receive or make a payment or delivery or exercise any other right with respect to their interests, on a particular day may find that the transaction will not be effected until the next business day in Luxembourg or Brussels, as applicable. Thus, investors who wish to exercise rights that expire on a particular day may need to act before the expiration date. In addition, investors who hold their interests through both DTC and Euroclear or Clearstream may need to make special arrangements to finance any purchases or sales of their interests between the U.S. and European clearing systems, and those transactions may settle later than would be the case for transactions within one clearing system.

Medium-Term Notes, Series B

Description of Debt Securities We May Offer

Please note that in this section entitled “Description of Debt Securities We May Offer,” references to UBS, we, our and us refer only to UBS AG and not to its consolidated subsidiaries. In particular, the debt securities are obligations solely of UBS AG, and not of any of its subsidiaries, including, without limitation, UBS Switzerland AG. Also, in this section, references to “holders” and “you” mean those who own debt securities registered in their own names on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in debt securities registered in street name or in debt securities issued in book-entry form through one or more depositaries. Owners of beneficial interests in the debt securities should read the section below entitled “Legal Ownership and Book-Entry Issuance.”

References herein to “this prospectus” are deemed to refer to this section “Medium-Term Notes, Series B” and references to “your prospectus supplement” are deemed to refer to the individual description of notes issuances contained below in this exhibit.

The Debt Indenture

As required by U.S. federal law for publicly offered bonds and notes, the debt securities are governed by a document called an indenture. The debt indenture is a contract between us and U.S. Bank Trust National Association, which acts as trustee.

The trustee has two main roles:

- First, the trustee can enforce your rights against us if we default. There are limitations on the extent to which the trustee acts on your behalf, which we describe below under “— Default, Remedies and Waiver of Default.”
- Second, the trustee performs administrative duties for us, such as sending you interest payments and notices.

See “— Our Relationship with the Trustee” below for more information about the trustee.

We May Issue Many Series of Debt Securities Under the Debt Indenture

We may issue as many distinct series of debt securities under the debt indenture as we wish. This section summarizes terms of the debt securities that apply generally to all series. The provisions of the debt indenture allow us not only to issue debt securities with terms different from those of debt securities previously issued under the debt indenture, but also to “reopen” a previous issue of a series of debt securities and issue additional debt securities of that series. Most of the financial and other specific terms of your series, will be described in the prospectus supplement accompanying this prospectus. Those terms may vary from the terms described here.

We may issue debt securities separately or together with other debt securities.

As you read this section, please remember that the specific terms of your debt security as described in your prospectus supplement will supplement and, if applicable, may modify or replace the general terms described in this section. If there are any differences between your prospectus supplement and this prospectus, your prospectus supplement will control. Thus, the statements we make in this section may not apply to your debt security.

When we refer to a series of debt securities, we mean a series issued under the debt indenture. When we refer to your prospectus supplement, we mean the prospectus supplement describing the specific terms of the debt security you purchase. The terms used in your prospectus supplement will have the meanings described in this prospectus, unless otherwise specified.

Unless we indicate otherwise in your prospectus supplement, the debt securities we issue to you will be part of the series of debt securities referred to as our “medium-term notes, Series B.” The Series B notes are a single distinct series under the debt indenture, and we may issue Series B notes in such amounts, at such times and on such terms as we wish. The Series B notes will differ from one another, and from any other series, in their terms, but all of the Series B notes together will constitute a single series for all purposes under the debt indenture pursuant to which they will be issued.

Amounts That We May Issue

The debt indenture does not limit the aggregate amount of debt securities that we may issue or the number of series or the aggregate amount of any particular series. We have already issued Series B notes, many of which are currently outstanding. We intend to issue additional Series B notes, and may issue additional Series B notes at any time, without your consent and without notifying you. We may also issue debt securities and other securities at any time without your consent and without notifying you.

The debt indenture and the debt securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the debt securities.

Principal Amount, Stated Maturity and Maturity

The principal amount of a debt security means the principal amount payable at its stated maturity, unless that amount is not determinable, in which case

the principal amount of a debt security is its face amount.

The term “stated maturity” with respect to any debt security means the day on which the principal amount of your debt security is scheduled to become due. The principal may become due sooner, by reason of redemption or acceleration after a default or otherwise in accordance with the terms of the debt security. The day on which the principal actually becomes due, whether at the stated maturity or earlier, is called the “maturity” of the principal.

We also use the terms “stated maturity” and “maturity” to refer to the days when other payments become due. For example, we may refer to a regular interest payment date when an installment of interest is scheduled to become due as the “stated maturity” of that installment.

When we refer to the “stated maturity” or the “maturity” of a debt security without specifying a particular payment, we mean the stated maturity or maturity, as the case may be, of the principal.

This Section Is Only a Summary

The debt indenture and its associated documents, including your debt security, contain the full legal text governing the matters described in this section and your prospectus supplement. We have filed a copy of the debt indenture with the SEC as an exhibit to our registration statement. See “Where You Can Find More Information” above for information on how to obtain a copy.

This section and your prospectus supplement summarize all the material terms of the debt indenture and your debt security. They do not, however, describe every aspect of the debt indenture and your debt security. For example, in this section and your prospectus supplement, we use terms that have been given special meaning in the debt indenture, but we describe the meaning of only the more important of those terms.

Governing Law

The debt indenture is, and the debt securities will be, governed by New York law.

Currency of Debt Securities

Amounts that become due and payable on your debt security in cash will be payable in a currency, composite currency, basket of currencies or currency unit or units specified in your prospectus supplement. We refer to this currency, composite currency, basket of currencies or currency unit or units as a “specified currency.” The specified currency for your debt security will be U.S. dollars, unless your prospectus supplement states otherwise. Some debt securities may have different specified currencies for principal and interest. You will have to pay for your debt securities by delivering the requisite amount of the specified currency to UBS Securities LLC, UBS Financial Services Inc. or another firm that we name in your prospectus supplement, unless other arrangements have been made between you and us or you and that firm. We will make payments on your debt securities in the specified currency, except as described below in “— Payment Mechanics for Debt Securities.” See “Considerations Relating to Securities Denominated or Payable in or Linked to a Non-U.S. Dollar Currency” below for more information about risks of investing in this kind of debt securities.

Types of Debt Securities

We may issue any of the three types of debt securities described below. A debt security may have elements of each of the three types of debt securities described below. For example, a debt security may bear interest at a fixed rate for some periods and at a floating rate in others. Similarly, a debt security may provide for a payment of principal at maturity linked to an index and also bear interest at a fixed or floating rate.

Fixed Rate Debt Securities

A debt security of this type will bear interest at a fixed rate described in the applicable prospectus supplement. This type includes zero coupon debt securities, which bear no interest and are instead issued at a price lower than the principal amount. See “— Original Issue Discount Debt Securities” below for more information about zero coupon and other original issue discount debt securities.

Each fixed rate debt security, except any zero coupon debt security, will bear interest from its original issue date or from the most recent date to which interest on the debt security has been paid or made available for payment. Interest will accrue on the principal of a fixed rate debt security at the fixed yearly rate stated in the applicable prospectus supplement, until the principal is paid or made available for payment or the security has been converted or exchanged. Each payment of interest due on an interest payment date or the date of maturity will include interest accrued from and including the last date to which interest has been paid, or made available for payment, or from the issue date if none has been paid or made available for payment, to but excluding the interest payment date or the date of maturity. We will compute interest on fixed rate debt securities on the basis of a 360-day year of twelve 30-day months. We will pay interest on each interest payment date and at maturity as described below under “— Payment Mechanics for Debt Securities.”

Floating Rate Debt Securities

Interest Rate Formulas. A debt security of this type will bear interest at rates that are determined by reference to an interest rate formula. In some cases, the rates may also be adjusted by adding or subtracting a spread or multiplying by a spread multiplier and may be subject to a minimum rate or a maximum rate. If your debt security is a floating rate debt security, the formula and any adjustments that apply to the interest rate will be specified below.

Each floating rate debt security will bear interest from its original issue date or from the most recent date to which interest on the debt security has been paid or made available for payment. Interest will accrue on the principal of a floating rate debt security at the yearly rate determined according to the interest rate formula stated in the applicable prospectus supplement, until the principal is paid or made available for payment. We will pay interest on each interest payment date and at maturity as described below under “— Payment Mechanics for Debt Securities.”

Calculation of Interest. Calculations relating to floating rate debt securities will be made by the calculation agent, an institution that we appoint as our agent for this purpose. That institution may include any affiliate of ours, such as UBS Securities LLC. The prospectus supplement for a particular floating rate debt security will name the institution that we have appointed to act as the calculation agent for that debt security as of its original issue date. We may appoint a different institution to serve as calculation agent from time to time after the original issue date of the debt security without your consent and without notifying you of the change. Absent manifest error, all determinations of the calculation will be final and binding on you and us, without any liability on the part of the calculation agent.

For each floating rate debt security, the calculation agent will determine, on the corresponding interest calculation or determination date, as described in the applicable prospectus supplement, the interest rate that takes effect on each interest reset date. In addition, the calculation agent will calculate the amount of interest that has accrued during each interest period — *i.e.*, the period from and including the original issue date, or the last date to which interest has been paid or made available for payment, to but excluding the payment date. For each interest period, the calculation agent will calculate the amount of accrued interest by multiplying the face or other specified amount of the floating rate debt security by an accrued interest factor for the interest period. This factor will equal the sum of the interest factors calculated for each day during the interest period. The interest factor for each day will be expressed as a decimal and will be calculated by dividing the interest rate, also expressed as a decimal, applicable to that day by 360 or by the actual number of days in the year, as specified in the applicable prospectus supplement.

Upon the request of the holder of any floating rate debt security, the calculation agent will provide the interest rate then in effect for that debt security — and, if determined, the interest rate that will become effective on the next interest reset date. The calculation agent’s determination of any interest rate, and its calculation of the amount of interest for any interest period, will be final and binding in the absence of manifest error.

All percentages resulting from any calculation relating to a debt security will be rounded upward or downward, as appropriate, to the next higher or lower one hundred-thousandth of a percentage point, *e.g.*, 9.876541% (or .09876541) being rounded down to 9.87654% (or .0987654) and 9.876545% (or .09876545) being rounded up to 9.87655% (or .0987655). All amounts used in or resulting from any calculation relating to a floating rate debt security will be rounded upward or downward, as appropriate, to the nearest cent, in the case of U.S. dollars, or to the nearest corresponding hundredth of a unit, in the case of a currency other than U.S. dollars, with one-half cent or one-half of a corresponding hundredth of a unit or more being rounded upward.

In determining the base rate that applies to a floating rate debt security during a particular interest period, the calculation agent may obtain rate quotes from various banks or dealers active in the relevant market, as described in the applicable prospectus supplement. Those reference banks and dealers may include the calculation agent itself and its affiliates, as well as any underwriter, dealer or agent participating in the distribution of the relevant floating rate debt securities and its affiliates, and they may include UBS AG or its affiliates.

Indexed Debt Securities

A debt security of this type provides that the principal amount payable at its maturity, and/or the amount of interest payable on an interest payment date, will be determined by reference to:

- securities of one or more issuers;
- one or more currencies;
- one or more commodities;
- any other financial, economic or other measure or instrument, including the occurrence or non-occurrence of any event or circumstance; and/or
- one or more indices or baskets of the items described above.

If you are a holder of an indexed debt security, you may receive an amount at maturity (including upon acceleration following an event of default) that is greater than or less than the face amount of your debt security depending upon the formula used to determine the amount payable and the value of the applicable index at maturity. The value of the applicable index will fluctuate over time.

An indexed debt security may provide either for cash settlement or for physical settlement by delivery of the underlying property or another property of the type listed above. An indexed debt security may also provide that the form of settlement may be determined at our option or at the holder’s option. Some indexed debt securities may be convertible, exercisable or exchangeable, at our option or the holder’s option, into or for securities of an issuer other than UBS AG.

If you purchase an indexed debt security, your prospectus supplement will include information about the relevant index, about how amounts that are to become payable will be determined by reference to the price or value of that index and about the terms on which the security may be settled physically or in cash. The prospectus supplement will also identify the calculation agent that will calculate the amounts payable with respect to the indexed debt

security and may exercise significant discretion in doing so. The calculation agent may be UBS Securities LLC or another of our affiliates. See “Considerations Relating to Indexed Securities” for more information about risks of investing in debt securities of this type.

Original Issue Discount Debt Securities

A fixed rate debt security, a floating rate debt security or an indexed debt security may be an original issue discount debt security. A debt security of this type is issued at a price lower than its principal amount and provides that, upon redemption or acceleration of its maturity, an amount less than its principal amount will be payable. An original issue discount debt security may be a zero coupon debt security. A debt security issued at a discount to its principal may, for U.S. federal income tax purposes, be considered an original issue discount debt security, regardless of the amount payable upon redemption or acceleration of maturity. See “U.S. Tax Considerations — Taxation of Debt Securities — Original Issue Discount” below for a brief description of the U.S. federal income tax consequences of owning an original issue discount debt security.

Information in Your Prospectus Supplement

Your prospectus supplement will describe the specific terms of your debt security, which will include some or all of the following:

- any limit on the total principal amount of the debt securities of the same series;
- the stated maturity;
- the specified currency or currencies for principal and interest, if not U.S. dollars;
- the price at which we originally issue your debt security, expressed as a percentage of the principal amount, and the original issue date;
- whether your debt security is a fixed rate debt security, a floating rate debt security or an indexed debt security;
- if your debt security is a fixed rate debt security, the yearly rate at which your debt security will bear interest, if any, and the interest payment dates;
- if your debt security is a floating rate debt security, the interest rate basis; any applicable index currency or maturity, spread or spread multiplier or initial base rate, maximum rate or minimum rate; the interest reset, determination, calculation and payment dates; the day count used to calculate interest payments for any period; the business day convention; and the calculation agent;
- if your debt security is an indexed debt security, the principal amount, if any, we will pay you at maturity, the amount of interest, if any, we will pay you on an interest payment date or the formula we will use to calculate these amounts, if any, and the terms on which your debt security will be exchangeable for or payable in cash, securities or other property;
- if your debt security may be converted into or exercised or exchanged for debt or equity securities of one or more third parties, the terms on which conversion, exercise or exchange may occur, including whether conversion, exercise or exchange is mandatory, at the option of the holder or at our option, the period during which conversion, exercise or exchange may occur, the initial conversion, exercise or exchange price or rate and the circumstances or manner in which the amount of securities issuable upon conversion, exercise or exchange may be adjusted;
- if your debt security is also an original issue discount debt security, the yield to maturity;
- if applicable, the circumstances under which your debt security may be redeemed at our option or repaid at the holder’s option before the stated maturity, including any redemption commencement date, repayment date(s), redemption price(s) and redemption period(s);
- the authorized denominations, if other than \$1,000 and integral multiples of \$1,000;
- the depository for your debt security, if other than DTC, and any circumstances under which the holder may request securities in non-global form, if we choose not to issue your debt security in book-entry form only;
- if your debt security will be issued in bearer form, any special provisions relating to bearer securities;
- if applicable, the circumstances under which we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes and under which we can redeem the debt securities if we have to pay additional amounts;
- the names and duties of any co-trustees, depositaries, authenticating agents, paying agents, transfer agents or registrars for your debt security, as applicable; and
- any other terms of your debt security, which could be different from those described in this prospectus.

If you purchase your debt security — or any of our other securities we describe in this prospectus—in a market-making transaction, you will receive information about the price you pay and your trade and settlement dates in a separate confirmation of sale. A market-making transaction is one in which we, UBS Securities LLC, UBS Financial Services Inc. or another of our affiliates resells a security that it has previously acquired from another holder. A market-making transaction in a particular security occurs after the original issuance and sale of the security.

Extension of Maturity

If specified in the applicable prospectus supplement, we will have the option to extend the stated maturity of your debt security for one or more periods of whole years up to but not beyond the final maturity date specified in the prospectus supplement. We call a debt security whose maturity we may extend an extendible debt security. We call the period of time as to which we may extend the maturity the extension period. The following procedures will apply to extendible debt securities, unless otherwise indicated in the applicable prospectus supplement.

We may extend the maturity of an extendible debt security by notifying the paying agent between 45 and 60 days before the stated maturity then in effect. The stated maturity may be the original stated maturity, as described in the prospectus supplement, or a maturity that we previously extended by following these procedures. If we notify the paying agent that we will extend the maturity, the paying agent will send a notice to each holder by first class mail, postage prepaid, or by other means agreed upon between us and the paying agent, at least 30 days before the stated maturity then in effect. The notice sent by the paying agent will provide the following information:

- our election to extend the maturity of the extendible debt security;
- the extended maturity date or, if the maturity date had previously been extended, the new extended maturity date;
- the interest rate that will apply during the extension period or, in the case of a floating rate debt security, the spread and/or spread multiplier, if any, applicable during the extension period; and
- the provisions, if any, for redemption and repayment during the extension period.

Once the paying agent has mailed the notice to each holder, the extension of the maturity date will take place automatically. All of the terms of the debt security will be the same as the terms of the debt security as originally issued, except those terms that are described in the notice sent by the paying agent to each holder and except as described in the following paragraph.

Not later than 10:00 a.m., New York City time, on the twentieth calendar day before the maturity date then in effect for an extendible debt security or, if that day is not a business day, on the next succeeding business day, we may revoke the interest rate set forth in the extension notice sent by the paying agent to each holder and establish a higher interest rate for the extension period. If we elect to establish a higher interest rate, the paying agent will send a notice to each holder by first class mail, postage prepaid, or by other means agreed between us and the paying agent, of the higher interest rate in the case of a floating rate debt security, the higher spread and/or spread multiplier, if any. The notice of the higher rate cannot be revoked. All extendible debt securities as to which the maturity date has been extended will bear the higher rate for the extension period, whether or not tendered for repayment.

If we elect to extend the maturity date of an extendible debt security, each holder may elect repayment of all or part of its debt security on the maturity date then in effect at a price equal to the principal amount plus any accrued and unpaid interest to that date. To elect repayment, a holder must give notice to the paying agent between 25 and 35 days before the maturity date in effect. The notice must consist of either:

- the debt security along with the completed form entitled “Option to Elect Repayment,” which will be attached to your debt security.
- a telegram, facsimile transmission or letter from a member of a national securities exchange, the Financial Industry Regulatory Authority, Inc. or a commercial bank or trust company in the United States setting forth the name of the holder, the principal amount of the debt security, the principal amount of the debt security to be repaid, the certificate number or a description of the tenor and terms of the debt security, a statement that the option to elect repayment is being elected and a guarantee that the debt security, together with the completed form entitled “Option to Elect Repayment” will be received by the paying agent no later than the fifth business day after the date of the telegram, facsimile transmission or letter. The telegram, facsimile transmission or letter will become effective upon receipt, by that fifth business day, of the debt security and complete form.

The holder may revoke the election of repayment by sending to the paying agent written notice by 3:00 p.m., New York City time, on the twentieth day before the maturity date then in effect or, if that day is not a business day, on the next succeeding business day.

If an extendible debt security is represented by a global debt security, the depository or its nominee, as the holder, will be the only person that can exercise the right to elect repayment or revoke such an election. Any indirect owners who own beneficial interests in the global debt security and wish to make such an election must give proper and timely instructions to the banks or brokers through which they hold their interests, requesting that they notify the depository to make a repayment election or revoke such an election on their behalf. Different firms have different deadlines for accepting instructions from their customers, and you should take care to act promptly enough to ensure that your request is given effect by the depository before the applicable deadline for exercise.

Redemption and Repayment

Unless otherwise indicated in your prospectus supplement, your debt security will not be entitled to the benefit of any sinking fund—that is, we will not deposit money on a regular basis into any separate custodial account to repay your debt securities. In addition, we will not be entitled to redeem your debt security before its stated maturity (except for certain tax reasons, as described below) unless your prospectus supplement specifies a redemption date or redemption commencement date. You will not be entitled to require us to buy your debt security from you, before its stated maturity, unless your prospectus supplement specifies one or more repayment dates.

If your prospectus supplement specifies one or more redemption dates, a redemption commencement date or a repayment date, it will also specify one or more redemption prices or repayment prices, which may be expressed as a percentage of the principal amount of your debt security. It may also specify one or more redemption periods during which the redemption prices relating to a redemption of debt securities during those periods will apply.

If your prospectus supplement specifies one or more redemption dates, your debt security will be redeemable at our option on any of those dates. If your prospectus supplement specifies a redemption commencement date, your debt security will be redeemable at our option at any time on or after that date. If we redeem your debt security, we will do so at the specified redemption price. If different prices are specified for different redemption periods, the price we pay will be the price that applies to the redemption period during which your debt security is redeemed.

If your prospectus supplement specifies a repayment date, your debt security will be repayable at your option on the specified repayment date at the specified repayment price, together with interest accrued to the repayment date.

If we exercise an option to redeem any debt security, we will give the trustee and the holders written notice of the principal amount of the debt security to be redeemed, not less than 3 business days nor more than 60 days before the applicable redemption date unless otherwise specified in your prospectus supplement. We will give the notice in the manner described below in “— Notices.”

If a debt security represented by a global debt security is subject to repayment at the holder’s option, the depositary or its nominee, as the holder, will be the only person that can exercise the right to repayment. Any indirect holders who own beneficial interests in the global debt security and wish to exercise a repayment right must give proper and timely instructions to the banks or brokers through which they hold their interests, requesting that they notify the depositary to exercise the repayment right on their behalf. Different firms have different deadlines for accepting instructions from their customers, and you should take care to act promptly enough to ensure that your request is given effect by the depositary before the applicable deadline for exercise.

Street name and other indirect holders should contact their banks or brokers for information about how to exercise a repayment right in a timely manner.

We or our affiliates may purchase debt securities from investors who are willing to sell from time to time, either in the open market at prevailing prices or in private transactions at negotiated prices. Debt securities that we or they purchase may, at our discretion, be held, resold or cancelled.

Optional Tax Redemption

In addition to the situations described above under “— Redemption and Repayment,” we also have the option to redeem the debt securities in two situations described below, unless otherwise indicated in your prospectus supplement. The redemption price for the debt securities, other than original issue discount debt securities, will be equal to the principal amount of the debt securities being redeemed plus accrued interest and any additional amounts due on the date fixed for redemption. The redemption price for original issue discount debt securities will be specified in the prospectus supplement for such debt securities. Furthermore, we must give you between 10 and 60 days’ notice before redeeming the debt securities unless otherwise specified in your prospectus supplement.

- The first situation is where, as a result of a change in, execution of or amendment to any laws or treaties or the official application or interpretation of any laws or treaties, we would be required to pay additional amounts as described below under “— Payment of Additional Amounts.”

This applies only in the case of changes, executions, amendments, applications or interpretations that occur on or after the date specified in the prospectus supplement for the applicable debt securities and in a relevant jurisdiction, as defined in “— Payment of Additional Amounts” below. If UBS is succeeded by another entity, the applicable jurisdiction will be the jurisdiction in which the successor entity is organized, and the applicable date will be the date the entity became a successor.

We would not have the option to redeem in this case if we could have avoided the payment of additional amounts or the deduction or withholding by using reasonable measures available to us.

- The second situation is where a person located outside of a relevant jurisdiction into which UBS is merged or to whom it has conveyed, transferred or leased its property is required to pay an additional amount. We would have the option to redeem the debt securities even if we are required to pay additional amounts immediately after the merger, conveyance, transfer or lease. We are not required to use reasonable measures to avoid the obligation to pay additional amounts in this situation.

Payment of Additional Amounts

A relevant jurisdiction may require UBS to withhold amounts from payments on the principal or interest on a debt security for taxes or any other governmental charges. If the relevant jurisdiction requires a withholding of this type, UBS may be required to pay you an additional amount so that the net amount you receive will be the amount specified in the debt security to which you are entitled.

By relevant jurisdiction, we mean Switzerland or a jurisdiction in which the UBS branch through which debt securities are issued is located. UBS will not have to pay additional amounts in respect of taxes or other governmental charges that are required to be deducted or withheld by any paying agent from a payment on a debt security, if such payment can be made without such deduction or withholding by any other paying agent. Furthermore, UBS will not pay additional amounts for or on account of:

- the existence of any present or former connection between you and the relevant jurisdiction, other than the mere holding of the debt security and the receipt of payments on it;

- any estate, inheritance, gift, sales, transfer or personal property tax or any similar tax, duty, assessment or governmental charge;
- your failure, or the failure of any intermediary, custodian or broker, to comply with any reasonable certification, documentation, information or other reporting requirement concerning your nationality, residence, identity or connection with the relevant jurisdiction, if such compliance is required as a precondition to relief or exemption from such taxes or other governmental charges (including, without limitation, a certification that you are not resident in the relevant jurisdiction or are not an individual resident of a member state of the European Union);
- your status as a bank purchasing the debt security in the ordinary course of its lending business;
- your actual or constructive ownership of 10% or more of the combined voting power of all classes of stock of UBS entitled to vote;
- any taxes imposed on contingent interest as described in section 871(h)(4) of the Internal Revenue Code (as defined below under “U.S. Tax Considerations”);
- any taxes which would not have been imposed but for your presentation, or a presentation on your behalf, of a debt security payment on a date more than 15 days after the date on which such payment on the debt security becomes due and payable or on which the payment is duly provided for, whichever occurs later; or
- any combination of the items listed above.

In addition, no additional amounts will be required to be paid on account of any deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the Internal Revenue Code (as defined below under “U.S. Tax Considerations”), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Internal Revenue Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Internal Revenue Code.

These provisions will also apply to any taxes or governmental charges imposed by any jurisdiction in which a successor to UBS is organized. The prospectus supplement relating to the debt security may describe additional circumstances in which UBS would not be required to pay additional amounts.

Mergers and Similar Transactions

We are generally permitted to merge or consolidate with another firm. We are also permitted to sell our assets substantially as an entirety to another firm. With regard to any series of debt securities, we may not take any of these actions, however, unless all the following conditions are met:

- If the successor firm in the transaction is not UBS, the successor firm must be organized as a corporation, partnership or trust and must expressly assume our obligations under the debt securities of that series and the debt indenture. The successor firm must be organized under the laws of Switzerland.
- Immediately after the transaction, no default under the debt securities of that series has occurred and is continuing. For this purpose, “default under the debt securities of that series” means an event of default with respect to that series or any event that would be an event of default with respect to that series if the requirements for giving us default notice and for our default having to continue for a specific period of time were disregarded. We describe these matters below under “— Default, Remedies and Waiver of Default.”

If the conditions described above are satisfied with respect to the debt securities of any series, we will not need to obtain the approval of the holders of those debt securities in order to merge or consolidate or to sell our assets. Also, these conditions will apply only if we wish to merge or consolidate with another firm or sell our assets substantially as an entirety to another firm. We will not need to satisfy these conditions if we enter into other types of transactions, including any transaction in which we acquire the stock or assets of another firm, any transaction that involves a change of control of UBS but in which we do not merge or consolidate and any transaction in which we sell less than substantially all our assets.

Also, if we merge, consolidate or sell our assets substantially as an entirety and the successor firm is a non-Swiss entity, neither we nor any successor would have any obligation to compensate you for any resulting adverse tax consequences to the debt securities.

Defeasance and Covenant Defeasance

If indicated in the applicable prospectus supplement for a debt security, the provisions for full defeasance and covenant defeasance described below will apply to that debt security. In general, we expect these provisions to apply to each debt security that has a specified currency of U.S. dollars and is not a floating rate or indexed debt security.

Full Defeasance

If there is a change in U.S. federal tax law, as described below, we can legally release ourselves from all payment and other obligations on your debt security. This is called full defeasance. To do so, each of the following must occur:

- We must deposit in trust for the benefit of all holders of those debt securities, money, U.S. government or U.S. government agency notes or bonds or a combination of money and U.S. government or U.S. government agency notes or bonds that will, in each case, in the opinion of a nationally recognized firm of independent public accountants, generate enough cash to make interest, principal and any other payments on those debt securities on their various due dates.

- There must be a change in current U.S. federal tax law or an Internal Revenue Service ruling that lets us make the above deposit without causing the holders to be taxed on those debt securities any differently than if we did not make the deposit and just repaid the debt securities ourselves. Under current federal tax law, the deposit and our legal release from your debt securities would be treated as though we took back your debt security and gave you your share of the cash and notes or bonds deposited in trust. In that event, you could recognize gain or loss on your debt security.
- We must deliver to the trustee a legal opinion of our counsel confirming the tax law change described above.

If we ever fully defease your debt security, you would have to rely solely on the trust deposit for payments on your debt security. You would not be able to look to us for payment in the event of any shortfall.

Covenant Defeasance

Under current U.S. federal tax law, we can make the same type of deposit described above and be released from any restrictive covenants relating to your debt security that may be described in your prospectus supplement. This is called covenant defeasance. In that event, you would lose the protection of those restrictive covenants. In order to achieve covenant defeasance for any debt securities, we must do both of the following:

- We must deposit in trust for the benefit of all holders of those debt securities, money, U.S. government or U.S. government agency notes or bonds or a combination of money and U.S. government or U.S. government agency notes or bonds that will, in each case, in the opinion of a nationally recognized firm of independent public accountants, generate enough cash to make interest, principal and any other payments on those debt securities on their various due dates.
- We must deliver to the trustee a legal opinion of our counsel confirming that under U.S. federal income tax law as then in effect we may make the above deposit without causing you to be taxed on those debt securities any differently than if we did not make the deposit and just repaid those debt securities ourselves.

If we accomplish covenant defeasance with regard to your debt security, the following provisions of the debt indenture and your debt security would no longer apply:

- Any covenants that your prospectus supplement may state are applicable to your debt security; and
- The events of default resulting from a breach of covenants, described below in the fourth bullet point under “— Default, Remedies and Waiver of Default — Events of Default.”

Any right we have to redeem will survive covenant defeasance with regard to those debt securities.

If we accomplish covenant defeasance on your debt security, you can still look to us for repayment of your debt security in the event of any shortfall in the trust deposit. You should note, however, that if one of the remaining events of default occurred, such as our bankruptcy, and your debt security became immediately due and payable, there may be a shortfall. Depending on the event causing the default you may not be able to obtain payment of the shortfall.

Default, Remedies and Waiver of Default

You will have special rights if an event of default with respect to your series of debt securities occurs and is not cured, as described in this subsection.

Events of Default

Unless your prospectus supplement says otherwise, when we refer to an event of default with respect to any series of debt securities, we mean any of the following:

- We do not pay the principal or any premium (including delivering any security or other property deliverable) on any debt security of that series at its maturity;
- We do not pay interest on any debt securities of that series within 30 days after it becomes due and payable;
- We do not deposit a sinking fund payment with regard to any debt securities of that series on its due date, but only if the payment is required in the applicable prospectus supplement;
- We remain in breach of any other covenant we make in the debt indenture for the benefit of the debt securities of that series, for 60 days after we receive a notice of default stating that we are in breach and requiring us to remedy the breach. The notice must be sent by the trustee or the holders of not less than 10% in principal amount of the relevant series of debt securities then outstanding;
- We file for bankruptcy or certain other bankruptcy, insolvency or reorganization events relating to UBS occur; or
- If the applicable prospectus supplement states that any additional event of default applies to your series, that event of default occurs.

Remedies If an Event of Default Occurs

If an event of default has occurred with respect to any series of debt securities and has not been cured or waived, the trustee or the holders of not less than 25% in principal amount of all debt securities of that series then outstanding may declare the entire principal amount of the debt securities of that series to be due immediately. If an event of default occurs because of bankruptcy, insolvency or reorganization events relating to UBS, the entire principal amount of the debt securities of that series will be automatically accelerated, without any action by the trustee or any holder.

Each of the situations described above is called an acceleration of the maturity of the affected series of debt securities. If the maturity of any series is accelerated and a judgment for payment has not yet been obtained, the holders of a majority in principal amount of the debt securities of that series may cancel the acceleration for the entire series.

If an event of default occurs, the trustee will have special duties. The trustee will be obligated to use those of its rights and powers under the debt indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Except as described in the prior paragraph, the trustee is not required to take any action under the debt indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an indemnity. If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of all debt securities of the relevant series may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee with respect to that series. These majority holders may also direct the trustee in performing any other action under the debt indenture with respect to the debt securities of that series.

Before you bypass the trustee and bring your own lawsuit or other formal legal action or take other steps to enforce your rights or protect your interests relating to any debt security, all of the following must occur:

- The holder of your debt security must give the trustee written notice that an event of default has occurred, and the event of default must not have been cured or waived.
- The holders of not less than 25% in principal amount of all debt securities of your series must make a written request that the trustee take action because of the default, and they or other holders must offer to the trustee indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action.
- The trustee must not have taken action for 60 days after the above steps have been taken.
- During those 60 days, the holders of a majority in principal amount of the debt securities of your series must not have given the trustee directions that are inconsistent with the written request of the holders of not less than 25% in principal amount of all debt securities of your series.

You are, however, entitled at any time to bring a lawsuit for the payment of money due on your debt security on or after its due date.

Waiver of Default

The holders of not less than a majority in principal amount of the debt securities of any series may waive a default for all debt securities of that series. If this happens, the default will be treated as if it has not occurred. No one can waive a payment default on your debt security, however, without the approval of the particular holder of that debt security.

We Will Give the Trustee Information About Defaults Annually

We will furnish to the trustee every year a written statement of two of our officers certifying that to their knowledge we are in compliance with the debt indenture and the debt securities, or else specifying any default under the debt indenture.

Book-entry and other indirect holders should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to declare or cancel an acceleration of the maturity of the debt securities. Book-entry and other indirect owners are described below under “Legal Ownership and Book-Entry Issuance.”

Modification and Waiver of Covenants

There are three types of changes we can make to the debt indenture and the debt securities of any series.

Changes Requiring Each Holder's Approval

First, there are changes that cannot be made without the approval of each holder of a debt security affected by the change. Here is a list of those types of changes:

- change the stated maturity for any principal or interest payment on a debt security;
- reduce the principal amount, the amount payable on acceleration of the maturity after a default, the interest rate or the redemption price for a debt security;
- permit redemption of a debt security if not previously permitted;
- impair any right a holder may have to require repayment of his or her debt security;
- impair any right that a holder of an indexed or any other debt security may have to exchange or convert the debt security for or into securities or other property;
- change the currency of any payment on a debt security other than as permitted by the debt security;
- change the place of payment on a debt security, if it is in non-global form;
- impair a holder's right to sue for payment of any amount due on his or her debt security;

- reduce the percentage in principal amount of the debt securities of any one or more affected series, taken separately or together, as applicable, the approval of whose holders is needed to change the debt indenture or those debt securities;
- reduce the percentage in principal amount of the debt securities of any one or more affected series, taken separately or together, as applicable, the consent of whose holders is needed to waive our compliance with the debt indenture or to waive defaults; and
- change the provisions of the debt indenture dealing with modification and waiver in any other respect, except to increase any required percentage referred to above or to add to the provisions that cannot be changed or waived without approval of the holder of each affected debt security.

Changes Not Requiring Approval of Holders

The second type of change does not require any approval by holders of the debt securities of an affected series. This type of change is limited to clarifications and changes that would not adversely affect the debt securities of that series in any material respect. We also do not need any approval to make changes that affect only debt securities to be issued under the debt indenture after the changes take effect.

We may also make changes or obtain waivers that do not adversely affect a particular debt security, even if they affect other debt securities. In those cases, we do not need to obtain the approval of the holder of the unaffected debt security; we need only obtain any required approvals from the holders of the affected debt securities.

Changes Requiring Majority Approval

Any other change to the debt indenture and the debt securities would require the following approval:

- If the change affects only the debt securities of a particular series, it must be approved by the holders of 66 $\frac{2}{3}$ % in principal amount of the debt securities of that series.
- If the change affects the debt securities of more than one series of debt securities issued under the debt indenture, it must be approved by the holders of 66 $\frac{2}{3}$ % in principal amount of all series affected by the change, with the debt securities of all the affected series voting together as one class for this purpose (and of any affected series that by its terms is entitled to vote separately as a series, as described below).

In each case, the required approval must be given by written consent.

Majority approval would be required for us to obtain a waiver of any of our covenants in the debt indenture. Our covenants include the promises we make about merging, which we describe above under “— Mergers and Similar Transactions.” If the holders approve a waiver of a covenant, we will not have to comply with that covenant. The holders, however, cannot approve a waiver of any provision in a particular debt security, or in the debt indenture as it affects that debt security, that we cannot change without the approval of the holder of that debt security as described above under “— Changes Requiring Each Holder’s Approval,” unless that holder approves the waiver.

Book-entry and other indirect holders should consult their banks or brokers for information on how approval may be granted or denied if we seek to change the debt indenture or the debt securities or request a waiver.

Special Rules for Action by Holders

When holders take any action under the debt indenture, such as giving a notice of default, declaring an acceleration, approving any change or waiver or giving the trustee an instruction, we will apply the following rules.

Only Outstanding Debt Securities Are Eligible

Only holders of outstanding debt securities of the applicable series will be eligible to participate in any action by holders of debt securities of that series. Also, we will count only outstanding debt securities in determining whether the various percentage requirements for taking action have been met. For these purposes, a debt security will not be “outstanding”:

- if it has been surrendered for cancellation;
- if we have deposited or set aside, in trust for its holder, money for its payment or redemption;
- if we have fully defeased it as described above under “— Defeasance and Covenant Defeasance — Full Defeasance”; or
- if we or one of our affiliates, such as UBS Securities LLC or UBS Financial Services Inc., is the beneficial owner.

Special Series Voting Rights

We may issue series of debt securities that are entitled, by their terms, to vote separately on matters (for example, modification or waiver of provisions in the debt indenture) that would otherwise require a vote of all affected series, voting together as a single class. Any such series would be entitled to vote together with all other affected series, voting together as one class, and would also be entitled to vote separately, as a series only. These special voting rights will be described in the applicable prospectus supplement. For a series that does not have these special rights, voting will occur as described in the preceding section, but subject to any separate voting rights of any series having special rights. We may issue a series having these or other special voting rights without obtaining the consent of or giving notice to holders of outstanding series.

Eligible Principal Amount of Some Debt Securities

In some situations, we may follow special rules in calculating the principal amount of a debt security that is to be treated as outstanding for the purposes described above. This may happen, for example, if the principal amount is payable in a non-U.S. dollar currency, increases over time or is not to be fixed until maturity. For any debt security of the kind described below, we will decide how much principal amount to attribute to the debt security as follows:

- For an original issue discount debt security, we will use the principal amount that would be due and payable on the action date if the maturity of the debt security were accelerated to that date because of a default.
- For a debt security whose principal amount is not known, we will use any amount that we indicate in the prospectus supplement for that debt security. The principal amount of a debt security may not be known, for example, because it is based on an index that changes from time to time and the principal amount is not to be determined until a later date.
- For debt securities with a principal amount denominated in one or more non-U.S. dollar currencies or currency units, we will use the U.S. dollar equivalent, which we will determine.

Determining Record Dates for Action by Holders

We will generally be entitled to set any day as a record date for the purpose of determining the holders that are entitled to take action under the debt indenture. In certain limited circumstances, only the trustee will be entitled to set a record date for action by holders. If we or the trustee set a record date for an approval or other action to be taken by holders, that vote or action may be taken only by persons or entities who are holders on the record date and must be taken during the period that we specify for this purpose, or that the trustee specifies if it sets the record date. We or the trustee, as applicable, may shorten or lengthen this period from time to time. This period, however, may not extend beyond the 180th day after the record date for the action. In addition, record dates for any global debt security may be set in accordance with procedures established by the depository from time to time. Accordingly, record dates for global debt securities may differ from those for other debt securities.

Form, Exchange and Transfer of Debt Securities

We will issue each debt security in global — *i.e.*, book-entry — form only, unless we specify otherwise in the applicable prospectus supplement. Debt securities in book-entry form will be represented by a global security registered in the name of a depository, which will be the holder of all the debt securities represented by the global security. Those who own beneficial interests in a global debt security will do so through participants in the depository's securities clearance system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depository and its participants. We describe book-entry securities below under "Legal Ownership and Book-Entry Issuance." Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depository for all debt securities in global form.

In addition, we will generally issue each debt security in registered form, without coupons, unless we specify otherwise in the applicable prospectus supplement. If we issue a debt security in bearer form, the applicable prospectus supplement will describe the provisions that would apply to that security.

If a debt security is issued as a global debt security, only the depository — *e.g.*, DTC, Euroclear and Clearstream — will be entitled to transfer and exchange the debt security or exercise any other rights of a holder as described in this subsection, since the depository will be the sole holder of the debt security.

If any debt securities cease to be issued in global form, then unless we indicate otherwise in your prospectus supplement, they will be issued:

- only in fully registered form;
- without interest coupons; and
- unless we indicate otherwise in your prospectus supplement, in denominations of \$1,000 and integral multiples of \$1,000.

Holders may exchange their debt securities for debt securities of smaller denominations (subject to the limit above) or combined into fewer debt securities of larger denominations, as long as the total principal amount is not changed. You may not exchange your debt securities for securities of a different series or having different terms, unless your prospectus supplement says you may.

Holders may exchange or transfer their debt securities at the office of the trustee. They may also replace lost, stolen, destroyed or mutilated debt securities at that office. We have appointed the trustee to act as our agent for registering debt securities in the names of holders and transferring and replacing debt securities. We may appoint another entity to perform these functions or perform them ourselves.

Holders will not be required to pay a service charge to transfer or exchange their debt securities, but they may be required to pay for any tax or other governmental charge associated with the exchange or transfer. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may require an indemnity before replacing any debt securities.

If we have designated additional transfer agents for your debt security, they will be named in your prospectus supplement. We may appoint additional transfer agents or cancel the appointment of any particular transfer agent. We may also approve a change in the office through which any transfer agent acts.

If the debt securities of any series are redeemable and we redeem less than all those debt securities, we may block the transfer or exchange of those debt securities during the period beginning 15 days before the day we mail the notice of redemption and ending on the day of that mailing or during any other period specified in the applicable prospectus supplement, in order to freeze the list of holders who will receive the mailing. We may also refuse to register transfers of or exchange any debt security selected for redemption, except that we will continue to permit transfers and exchanges of the unredeemed portion of any debt security being partially redeemed.

The rules for exchange described above apply to exchanges of debt securities for other debt securities of the same series and kind. If a debt security is convertible, exercisable or exchangeable into or for a different kind of security, such as one that we have not issued, or for other property, the rules governing that type of conversion, exercise or exchange will be described in the applicable prospectus supplement.

Payment Mechanics for Debt Securities

Who Receives Payments?

If interest is due on a debt security on an interest payment date, we will pay the interest to the person in whose name the debt security is registered at the close of business on the regular record date described below relating to the interest payment date. If interest is due at maturity but on a day that is not an interest payment date, we will pay the interest to the person entitled to receive the principal of the debt security. If principal or another amount besides interest is due on a debt security at maturity, we will pay the amount to the holder of the debt security against surrender of the debt security at a proper place of payment (or, in the case of a global debt security, in accordance with the applicable policies of the depository).

Payment Dates and Regular Record Dates for Interest

Unless we specify otherwise in the applicable prospectus supplement, interest on any fixed rate debt security will be payable semiannually each May 15 and November 15 and at maturity, and the regular record date relating to an interest payment date for any fixed rate debt security will be the May 1 or November 1 next preceding that interest payment date. The regular record date relating to an interest payment date for any floating rate debt security will be the 15th calendar day before that interest payment date. These record dates will apply whether or not a particular record date is a business day. For the purpose of determining the holder at the close of business on a regular record date when business is not being conducted, the close of business will mean 5:00 P.M., New York City time, on that day.

The term “business day” means, for any debt security, a day that meets all the following applicable requirements:

- for all debt securities, is a Monday, Tuesday, Wednesday, Thursday or Friday that is not a day on which banking institutions in New York City generally are authorized or obligated by law, regulation or executive order to close and that satisfies any other criteria specified in your prospectus supplement;
- if the debt security is a floating rate debt security whose interest rate is based on the London Inter-Bank Offered Rate (“LIBOR”), is also a day on which dealings in the relevant index currency specified in the applicable prospectus supplement are transacted in the London interbank market;
- if the debt security is a floating rate debt security whose interest rate is based on the Secured Overnight Financing Rate (“SOFR”), is also any day except for a Saturday, a Sunday or a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities;
- if the debt security has a specified currency other than U.S. dollars or euros, is also a day on which banking institutions are not authorized or obligated by law, regulation or executive order to close in the principal financial center of the country issuing the specified currency;
- if the debt security either is a floating rate debt security whose interest rate is based on EURIBOR or has a specified currency of euros, is also a day on which the Trans-European Automated Real-time Gross settlement Express Transfer (TARGET) System, or any successor system, is open for business;
- if the debt security is held through Euroclear, is also not a day on which banking institutions in Brussels, Belgium are generally authorized or obligated by law, regulation or executive order to close; and
- if the debt security is held through Clearstream, is also not a day on which banking institutions in Luxembourg are generally authorized or obligated by law, regulation or executive order to close.

How We Will Make Payments Due in U.S. Dollars

We will follow the practices described in this subsection when paying amounts due in U.S. dollars. Payments of amounts due in other currencies will be made as described in the next subsection.

Payments on Global Debt Securities. We will make payments on a global debt security in accordance with the applicable policies of the depository as in effect from time to time. Under those policies, we will pay directly to the depository, or its nominee, and not to any indirect owners who own beneficial interests in the global debt security. An indirect owner’s right to receive those payments will be governed by the rules and practices of the depository and its participants, as described under “Legal Ownership and Book-Entry Issuance — What Is a Global Security?”

Payments on Non-Global Debt Securities. We will make payments on a debt security in non-global, registered form as follows. We will pay interest that is due on an interest payment date by check mailed on the interest payment date to the holder at his or her address shown on the trustee’s records as of the close of business on the regular record date. We will make all other payments by check at the paying agent described below, against surrender of the debt security. All payments by check will be made in next-day funds — that is, in funds that become available on the day after the check is cashed.

Alternatively, if a non-global debt security has a face amount of at least \$1,000,000 and the holder asks us to do so, we will pay any amount that becomes due on the debt security by wire transfer of immediately available funds to an account at a bank in New York City, on the due date. To request wire payment, the holder must give the paying agent appropriate wire transfer instructions at least five business days before the requested wire payment is due. In the case of any interest payment due on an interest payment date, the instructions must be given by the person who is the holder on the relevant regular record date. In the case of any other payment, payment will be made only after the debt security is surrendered to the paying agent. Any wire instructions, once properly given, will remain in effect unless and until new instructions are given in the manner described above.

Book-entry and other indirect owners should consult their banks or brokers for information on how they will receive payments on their debt securities.

How We Will Make Payments Due in Other Currencies

We will follow the practices described in this subsection when paying amounts that are due in a specified currency other than U.S. dollars.

Payments on Global Debt Securities. We will make payments on a global debt security in accordance with the applicable policies of the depository as in effect from time to time. We understand that these policies, as currently in effect at DTC, are as follows:

Unless otherwise indicated in your prospectus supplement, if you are an indirect owner of global debt securities denominated in a specified currency other than U.S. dollars and if you have the right to elect to receive payments in that other currency and you do make that election, you must notify the participant through which your interest in the global debt security is held of your election:

- on or before the applicable regular record date, in the case of a payment of interest, or
- on or before the 16th day prior to stated maturity, or any redemption or repayment date, in the case of payment of principal or any premium.

You may elect to receive all or only a portion of any interest, principal or premium payment in a specified currency other than U.S. dollars.

Your participant must, in turn, notify DTC of your election on or before the third DTC business day after that regular record date, in the case of a payment of interest, and on or before the 12th DTC business day prior to stated maturity, or on the redemption or repayment date if your debt security is redeemed or repaid earlier, in the case of a payment of principal or any premium.

DTC, in turn, will notify the paying agent of your election in accordance with DTC's procedures.

If complete instructions are received by the participant and forwarded by the participant to DTC, and by DTC to the paying agent, on or before the dates noted above, the paying agent, in accordance with DTC's instructions, will make the payments to you or your participant by wire transfer of immediately available funds to an account maintained by you or your participant with a bank located in the country issuing the specified currency or in another jurisdiction acceptable to us and the paying agent.

If the foregoing steps are not properly completed, we expect DTC to inform the paying agent that payment is to be made in U.S. dollars. In that case, we or our agent will convert the payment to U.S. dollars in the manner described below under "— Conversion to U.S. Dollars." We expect that we or our agent will then make the payment in U.S. dollars to DTC, and that DTC in turn will pass it along to its participants.

Book-entry and other indirect holders of a global debt security denominated in a currency other than U.S. dollars should consult their banks or brokers for information on how to request payment in the specified currency.

Payments on Non-Global Debt Securities. Except as described in the second to last paragraph under this heading, we will make payments on debt securities in non-global form in the applicable specified currency. We will make these payments by wire transfer of immediately available funds to any account that is maintained in the applicable specified currency at a bank designated by the holder and is acceptable to us and the trustee. To designate an account for wire payment, the holder must give the paying agent appropriate wire instructions at least five business days before the requested wire payment is due. In the case of any interest payment due on an interest payment date, the instructions must be given by the person who is the holder on the regular record date. In the case of any other payment, the payment will be made only after the debt security is surrendered to the paying agent. Any instructions, once properly given, will remain in effect unless and until new instructions are properly given in the manner described above.

If a holder fails to give instructions as described above, we will notify the holder at the address in the trustee's records and will make the payment within five business days after the holder provides appropriate instructions. Any late payment made in these circumstances will be treated under the debt indenture as if made on the due date, and no interest will accrue on the late payment from the due date to the date paid.

Although a payment on a debt security in non-global form may be due in a specified currency other than U.S. dollars, we will make the payment in U.S. dollars if the holder asks us to do so. To request U.S. dollar payment, the holder must provide appropriate written notice to the trustee at least five business days before the next due date for which payment in U.S. dollars is requested. In the case of any interest payment due on an interest payment date, the request must be made by the person who is the holder on the regular record date. Any request, once properly made, will remain in effect unless and until revoked by notice properly given in the manner described above.

Indirect owners of a non-global debt security with a specified currency other than U.S. dollars should contact their banks or brokers for information about how to receive payments in the specified currency or in U.S. dollars.

Conversion to U.S. Dollars. When we are asked by a holder to make payments in U.S. dollars of an amount due in another currency, either on a global debt security or a non-global debt security as described above, we will determine the U.S. dollar amount the holder receives as follows. The exchange rate agent described below will request currency bid quotations expressed in U.S. dollars from three or, if three are not available, then two, recognized foreign exchange dealers in New York City, any of which may be the exchange rate agent, which may be UBS Securities LLC, an affiliate of UBS, as of 11:00 A.M., New York City time, on the second business day before the payment date. Currency bid quotations will be requested on an aggregate basis, for all holders of debt securities requesting U.S. dollar payments of amounts due on the same date in the same specified currency. The U.S. dollar amount the holder receives will be based on the highest acceptable currency bid quotation received by the exchange rate agent. If the exchange rate agent determines that at least two acceptable currency bid quotations are not available on that second business day, the payment will be made in the specified currency.

To be acceptable, a quotation must be given as of 11:00 A.M., New York City time, on the second business day before the due date and the quoting dealer must commit to execute a contract at the quotation in the total amount due in that currency on all series of debt securities. If some but not all of the relevant debt securities are LIBOR debt securities, SOFR debt securities or EURIBOR debt securities, the second preceding business day will be determined for this purpose as if none of those debt securities were LIBOR debt securities, SOFR debt securities or EURIBOR debt securities.

A holder that requests payment in U.S. dollars will bear all associated currency exchange costs, which will be deducted from the payment.

When the Specified Currency Is Not Available. If we are obligated to make any payment in a specified currency other than U.S. dollars, and the specified currency or any successor currency is not available to us or cannot be paid to you due to circumstances beyond our control — such as the imposition of exchange controls or a disruption in the currency markets — we will be entitled to satisfy our obligation to make the payment in that specified currency by making the payment in U.S. dollars, on the basis specified in the applicable prospectus supplement.

For a specified currency other than U.S. dollars, the exchange rate will be the noon buying rate for cable transfers of the specified currency in New York City as quoted by the Federal Reserve Bank of New York on the then-most recent day on which that bank has quoted that rate.

The foregoing will apply to any debt security, whether in global or non-global form, and to any payment, including a payment at maturity. Any payment made under the circumstances and in a manner described above will not result in a default under any debt security or the debt indenture.

Exchange Rate Agent. If we issue a debt security in a specified currency other than U.S. dollars, we will appoint a financial institution to act as the exchange rate agent and will name the institution initially appointed when the debt security is originally issued in the applicable prospectus supplement. We may select UBS Securities LLC or another of our affiliates to perform this role. We may change the exchange rate agent from time to time after the original issue date of the debt security without your consent and without notifying you of the change.

All determinations made by the exchange rate agent will be at its sole discretion unless we state in your prospectus supplement that any determination is subject to our approval. In the absence of manifest error, those determinations will be conclusive for all purposes and binding on you and us, without any liability on the part of the exchange rate agent.

Payment When Offices Are Closed

If any payment is due on a debt security on a day that is not a business day, we will make the payment on the next day that is a business day. Unless specified otherwise in the applicable prospectus supplement, payments postponed to the next business day in this situation will be treated under the debt indenture as if they were made on the original due date. Postponement of this kind will not result in a default under any debt security or the debt indenture, and no interest will accrue on the postponed amount from the original due date to the next day that is a business day. The term business day has a special meaning, which we describe above under “— Payment Dates and Regular Record Dates for Interest.”

Paying Agent

We may appoint one or more financial institutions to act as our paying agents, at whose designated offices debt securities in non-global entry form may be surrendered for payment at their maturity. We call each of those offices a paying agent. We may add, replace or terminate paying agents from time to time. We may also choose to act as our own paying agent. Initially, we have appointed the trustee, at its corporate trust office in New York City, as the paying agent. We must notify the trustee of changes in the paying agents.

Settlement Mechanics

The settlement mechanics applicable to debt securities calling for physical settlement will be described in the applicable prospectus supplement.

Unclaimed Payments

Regardless of who acts as paying agent, all money paid by us to a paying agent that remains unclaimed at the end of two years after the amount is due to a holder will be repaid to us. After that two-year period, the holder may look only to us for payment and not to the trustee, any other paying agent or anyone else.

Notices

Notices to be given to holders of a global debt security will be given only to the depositary, in accordance with its applicable policies as in effect from time to time. Notices to be given to holders of debt securities not in global form will be sent by mail to the respective addresses of the holders as they appear in the trustee's records, and will be deemed given when mailed. Neither the failure to give any notice to a particular holder, nor any defect in a notice given to a particular holder, will affect the sufficiency of any notice given to another holder.

Book-entry and other indirect holders should consult their banks or brokers for information on how they will receive notices.

Our Relationship with the Trustee

U.S. Bank Trust National Association has provided commercial banking and other services for us and our affiliates in the past and may do so in the future. Among other things, U.S. Bank Trust National Association holds debt securities issued by us and serves as trustee or agent with regard to other obligations of UBS or its subsidiaries.

U.S. Bank Trust National Association is serving as the trustee for the debt securities and the warrants issued under our warrant indenture. Consequently, if an actual or potential event of default occurs with respect to any of these securities, the trustee may be considered to have a conflicting interest for purposes of the Trust Indenture Act of 1939. In that case, the trustee may be required to resign under one or more of the indentures, and we would be required to appoint a successor trustee. For this purpose, a "potential" event of default means an event that would be an event of default if the requirements for giving us default notice or for the default having to exist for a specific period of time were disregarded.

Legal Ownership and Book-Entry Issuance

In this section, we describe special considerations that will apply to registered securities issued in global — i.e., book-entry — form. First we describe the difference between legal ownership and indirect ownership of registered securities. Then we describe special provisions that apply to global securities.

Who is The Legal Owner of a Registered Security?

Each debt security or warrant in registered form will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. We refer to those who have securities registered in their own names, on the books that we or the trustee, warrant agent or other agent maintain for this purpose, as the "holders" of those securities. These persons are the legal holders of the securities. We refer to those who, indirectly through others, own beneficial interests in securities that are not registered in their own names as indirect owners of those securities. As we discuss below, indirect owners are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect owners.

Book-Entry Owners

We will issue each security in book-entry form only. This means securities will be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary's book-entry system. These participating institutions, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Under each indenture or warrant agreement, only the person in whose name a security is registered is recognized as the holder of that security. Consequently, for securities issued in global form, we will recognize only the depositary as the holder of the securities and we will make all payments on the securities, including deliveries of any property other than cash, to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary's book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect owners, and not holders, of the securities.

Street Name Owners

In the future we may terminate a global security or issue securities initially in non-global form. In these cases, investors may choose to hold their securities in their own names or in street name. Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities and we will make all payments on those securities, including deliveries of any property other than cash, to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect owners, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of the trustee and the obligations, if any, of any warrant agents and any other third parties employed by us, the trustee or any of those agents, run only to the holders of the securities. We do not have obligations to investors who hold indirect interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect owner of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for that payment or notice even if that holder is required, under agreements with depository participants or customers or by law, to pass it along to the indirect owners but does not do so. Similarly, if we want to obtain the approval of the holders for any purpose — for example, to amend the indenture for a series of debt securities or warrants or the warrant agreement for a series of warrants or to relieve us of the consequences of a default or of our obligation to comply with a particular provision of the indenture — we would seek the approval only from the holders, and not the indirect owners, of the relevant securities. Whether and how the holders contact the indirect owners is up to the holders.

When we refer to “you” in this prospectus, we mean those who invest in the securities being offered by this prospectus, whether they are the holders or only indirect owners of those securities. When we refer to “your securities” in this prospectus, we mean the securities in which you will hold a direct or indirect interest.

Special Considerations for Indirect Owners

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- whether and how you can instruct it to exercise any rights to purchase or sell warrant property under a warrant or to exchange or convert a security for or into other property;
- how it would handle a request for the holders’ consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depository’s rules and procedures will affect these matters.

What Is a Global Security?

We will issue each security in book-entry form only. Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of one or more financial institutions or clearing systems, or their nominees, which we select. A financial institution or clearing system that we select for any security for this purpose is called the “depository” for that security. A security will usually have only one depository but it may have more.

Each series of securities will have one or more of the following as the depositories:

- The Depository Trust Company, New York, New York, which is known as “DTC”;
- a financial institution holding the securities on behalf of Morgan Guaranty Trust Company of New York, acting out of its Brussels, Belgium, office, as operator of the Euroclear system, which is known as “Euroclear”;
- a financial institution holding the securities on behalf of Clearstream Banking, société anonyme, which is known as “Clearstream”; and

- any other clearing system or financial institution named in the applicable prospectus supplement. The depositaries named above may also be participants in one another's systems. Thus, for example, if DTC is the depositary for a global security, investors may hold beneficial interests in that security through Euroclear or Clearstream, as DTC participants.

The depositary or depositaries for your securities will be named in your prospectus supplement; if none is named, the depositary will be DTC.

A global security may represent one or any other number of individual securities. Generally, all securities represented by the same global security will have the same terms. We may, however, issue a global security that represents multiple securities of the same kind, such as debt securities, that have different terms and are issued at different times. We call this kind of global security a master global security. Your prospectus supplement will not indicate whether your securities are represented by a master global security.

A global security may not be transferred to or registered in the name of anyone other than the depositary or its nominee, unless special termination situations arise. We describe those situations below under “— Holder's Option to Obtain a Non-Global Security; Special Situations When a Global Security Will Be Terminated.” As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only indirect interests in a global security. Indirect interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect owner of an interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. We describe the situations in which this can occur below under “— Holder's Option to Obtain a Non-Global Security; Special Situations When a Global Security Will Be Terminated.” If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations for Global Securities

As an indirect owner, an investor's rights relating to a global security will be governed by the account rules of the depositary and those of the investor's financial institution or other intermediary through which it holds its interest (such as Euroclear or Clearstream, if DTC is the depositary), as well as general laws relating to securities transfers. We do not recognize this type of investor or any intermediary as a holder of securities and instead deal only with the depositary that holds the global security. If securities are issued only in the form of a global security, an investor should be aware of the following:

- An investor cannot require the securities to be registered in his or her own name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below.
- An investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above under “— Who Is the Legal Owner of a Registered Security?”
- An investor may not be able to sell interests in the securities to some insurance companies and other institutions that are required by law to own their securities in non-book-entry form.
- An investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective.
- The depositary's policies will govern payments, deliveries, transfers, exchanges, notices and other matters relating to an investor's interest in a global security, and those policies may change from time to time. We, the trustee and any warrant agents will have no responsibility for any aspect of the depositary's policies, actions or records of ownership interests in a global security. We, the trustee and any warrant agents also do not supervise the depositary in any way.
- The depositary will require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds and your broker or bank may require you to do so as well.

- Financial institutions that participate in the depository’s book-entry system and through which an investor holds its interest in the global securities, directly or indirectly, may also have their own policies affecting payments, deliveries, transfers, exchanges, notices and other matters relating to the securities, and those policies may change from time to time. For example, if you hold an interest in a global security through Euroclear or Clearstream, when DTC is the depository, Euroclear or Clearstream, as applicable, will require those who purchase and sell interests in that security through them to use immediately available funds and comply with other policies and procedures, including deadlines for giving instructions as to transactions that are to be effected on a particular day. There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the policies or actions or records of ownership interests of any of those intermediaries.

Holder’s Option to Obtain a Non-Global Security; Special Situations When a Global Security Will Be Terminated

If we issue any series of securities in book-entry form but we choose to give the beneficial owners of that series the right to obtain non-global securities, any beneficial owner entitled to obtain non-global securities may do so by following the applicable procedures of the depository, any transfer agent or registrar for that series and that owner’s bank, broker or other financial institution through which that owner holds its beneficial interest in the securities. If you are entitled to request a non- global certificate and wish to do so, you will need to allow sufficient lead time to enable us or our agent to prepare the requested certificate.

In addition, in a few special situations described below, a global security will be terminated and interests in it will be exchanged for certificates in non-global form representing the securities it represented. After that exchange, the choice of whether to hold the securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in a global security transferred on termination to their own names, so that they will be holders. We have described the rights of holders and street name investors above under “—Who Is the Legal Owner of a Registered Security?”

The special situations for termination of a global security are as follows:

- if the depository notifies us that it is unwilling, unable or no longer qualified to continue as depository for that global security and we do not appoint another institution to act as depository within 60 days; or
- in the case of a global security representing debt securities or warrants issued under an indenture, if an event of default has occurred with regard to these debt securities or warrants and has not been cured or waived.

If a global security is terminated, only the depository, and not we, the trustee for any debt securities or warrants or the warrant agent for any warrants, is responsible for deciding the names of the institutions in whose names the securities represented by the global security will be registered and, therefore, who will be the holders of those securities.

Considerations Relating to Euroclear and Clearstream

Euroclear and Clearstream are securities clearance systems in Europe. Both systems clear and settle securities transactions between their participants through electronic, book-entry delivery of securities against payment.

Euroclear and Clearstream may be depositories for a global security. In addition, if DTC is the depository for a global security, Euroclear and Clearstream may hold interests in the global security as participants in DTC.

As long as any global security is held by Euroclear or Clearstream as depository, you may hold an interest in the global security only through an organization that participates, directly or indirectly, in Euroclear or Clearstream. If Euroclear or Clearstream is the depository for a global security and there is no depository in the United States, you will not be able to hold interests in that global security through any securities clearance system in the United States.

Payments, deliveries, transfers, exchanges, notices and other matters relating to the securities made through Euroclear or Clearstream must comply with the rules and procedures of those systems. Those systems could change their rules and procedures at any time. We have no control over those systems or their participants and we take no responsibility for their activities. Transactions between participants in Euroclear or Clearstream, on one hand, and participants in DTC, on the other hand, when DTC is the depository, would also be subject to DTC’s rules and procedures.

Special Timing Considerations for Transactions in Euroclear and Clearstream

Investors will be able to make and receive through Euroclear and Clearstream payments, deliveries, transfers, exchanges, notices and other transactions involving any securities held through those systems only on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

In addition, because of time-zone differences, U.S. investors who hold their interests in the securities through these systems and wish to transfer their interests, or to receive or make a payment or delivery or exercise any other right with respect to their interests, on a particular day may find that the transaction will not be effected until the next business day in Luxembourg or Brussels, as applicable. Thus, investors who wish to exercise rights that expire on a particular day may need to act before the expiration date. In addition, investors who hold their interests through both DTC and Euroclear or Clearstream may need to make special arrangements to finance any purchases or sales of their interests between the U.S. and European clearing systems, and those transactions may settle later than would be the case for transactions within one clearing system.

1. UBS AG FI Enhanced Large Cap Growth ETN due June 19, 2024

Principal Terms:

Principal Amount: \$750,000,000

Issuer: UBS AG, London Branch

Initial Trade Date: June 10, 2014

Initial Settlement Date: June 13, 2014

Term: 10 years, subject to your right to receive payment for your Securities upon redemption, acceleration upon minimum indicative value or exercise by UBS of its call right.

Denomination/Principal Amount: \$100.00 per Security

Maturity Date: June 19, 2024, subject to adjustment

Underlying Index: The return on the Securities is linked to the Russell 1000 Growth Total Return Index. The level of the Index reflects both the price performance of the Index Constituent Securities and the reinvestment of dividends on the Index Constituent Securities.

Annual Tracking Rate: 0.85% per annum

Financing Spread: 0.44% per annum

Loss Rebalancing Fee: Upon each occurrence of a Loss Rebalancing Event, you will incur a 0.05% reduction in the LR Current Principal Amount of Your Securities and may also have a further reduction due to a breakage computation. See “General Terms of the Securities — Loss Rebalancing Event Upon Large Decreases in the Indicative Value” for the definition of the Loss Rebalancing Fee and all other defined pertaining to the Loss Rebalancing Event.

First Redemption Date: June 20, 2014 for Regular Redemptions, June 26, 2014 for Large Redemptions

Final Redemption Date: June 14, 2024

First Call Date: The first date that UBS may exercise its Call Right is June 15, 2015

Quarterly Initial Closing Level for the Initial Calendar Quarter: 826.0448, the Index Closing Level (as defined below) on the Initial Trade Date.

Quarterly Reset Dates: For each calendar quarter, the Quarterly Reset Date is the first Trading Day of that quarter beginning on October 1, 2014 and ending on April 1, 2024, subject to adjustment.

Quarterly Valuation Dates: For each Quarterly Reset Date, the Quarterly Valuation Date is the last Trading Day of the previous calendar quarter, beginning on September 30, 2014 and ending on March 28, 2024, subject to adjustment.

Floor Level: The “Floor Level” is equal to \$20.00 (subject to adjustment as described under “Valuation of the Index and the Securities — Split or Reverse Split of the Securities”).

Index Sponsor: Russell Investments, a subsidiary of Russell Investment Group (“Russell”).

Listing: The Securities have been approved for listing, subject to official notice of issuance, on NYSE Arca under the symbol “FBGX”

Calculation Date: June 10, 2024, unless that day is not a Trading Day, in which case the Calculation Date will be the next Trading Day, subject to adjustment.

Index Symbol: RU10GRTR (NYSE and Bloomberg)

Intraday Indicative Value Symbol: FBGXIV (Bloomberg)

CUSIP No.: 902677780

ISIN No.: US9026777808

Valuation of the Index and the Securities

Intraday Index Values

On each Trading Day, the Index Sponsor will calculate and publish the intraday indicative value of the relevant Index at least every 15 seconds during normal trading hours on Bloomberg L.P. (“Bloomberg”) or any other publicly available information provider specified in “Principal Terms” above under a ticker symbol identified above. The actual relevant Index Closing Level may vary, and on a cumulative basis over the term of any series of the Securities may vary significantly, from the intraday indicative value of the Index.

The intraday indicative calculation of the level of the relevant Index will be provided for reference purposes only. Published calculations of the level of the relevant Index from the Index Sponsor may occasionally be subject to delay or postponement. Any such delays or postponements will affect the current level of the relevant Index and therefore the value of the affected series of Securities in the secondary market. The intraday indicative value of the relevant Index published at least every 15 seconds will be based on the intraday prices of the Index Constituent Securities.

Intraday Security Values

An intraday “indicative value” for each series of the Securities, meant to approximate the intrinsic economic value of that series of the Securities, will be calculated by the calculation agent specified in “Principal Terms” above and published to Bloomberg or any other publicly available information provider specified in “Principal Terms” above (or a successor) via the facilities on the Consolidated Tape Association under a symbol to be identified in “Principal Terms” above. In connection with your Securities, we use the term “indicative value” to refer to the value at a given time and date equal to (i) Current Principal Amount multiplied by the Index Factor calculated using the intraday indicative value of the relevant Index as of such time as the Index Valuation Level, minus (ii) the Accrued Fees as of such time and date, assuming such time and date is the Redemption Valuation Date.

The intraday indicative value calculation will be used to determine whether any series of the Securities will be accelerated, as discussed under “General Terms of the Securities — Acceleration Upon Minimum Indicative Value”. It is not intended as a price or quotation, or as an offer to solicitation for the purpose, sale, or termination of your Securities, nor will it reflect hedging or other transactional costs, credit considerations, market liquidity or bid-offer spreads. The levels of the relevant Index provided by the Index Sponsor specified in “Principal Terms” above will not necessarily reflect the depth and liquidity of the relevant Index Constituent Securities. For this reason and others, the actual trading price of the Securities of any series may be different from their indicative value.

The calculation of the intraday indicative value shall not constitute a recommendation or solicitation to conclude a transaction at the level stated, and should not be treated as giving investment advice.

The reporting of the intraday indicative value of any series of the Securities by Bloomberg or any other publicly available information provider specified in “Principal Terms” above may occasionally be subject to delay or postponement. The actual trading price of any series of the Securities may be different from their intraday indicative value. The intraday indicative value of any series of the Securities published at least every 15 seconds during the NYSE Arca’s Core Trading Session, which is currently from 9:30 a.m. to 4:00 p.m., New York City time, will be based on the intraday indicative values of the relevant Index, and may not be equal to the payment at maturity, early redemption, acceleration, or upon exercise by UBS of its call right.

These intraday indicative value calculations will be prepared as of a particular time and date and will therefore not reflect subsequent changes in market values or prices or in any other factors relevant to their determination.

Split or Reverse Split of the Securities

Should the Current Principal Amount of any series of Securities on any Trading Day be above \$400.00, we may, but are not obligated to, initiate a 4-for-1 split of your Securities. Should the Current Principal Amount on any Trading Day be below \$40.00, we may, but are not obligated to, initiate a 1-for-4 reverse split of your Securities. If the Current Principal Amount of a series of Securities is greater than \$400.00 or below \$40.00 on any Trading Day, and we decide to initiate a split or reverse split, as applicable, such date shall be deemed to be the “announcement date”, and we will issue a notice to holders of the relevant Securities and press release announcing the split or reverse split, specifying the effective date of the split or reverse split.

If the Securities undergo a split, we will adjust the terms of the Securities accordingly. If the Securities undergo a 4:1 split, every investor who holds a Security via The Depository Trust Company (“DTC”) on the relevant record date will, after the split, hold four Securities, and adjustments will be made as described below. The record date for the split will be the tenth Business Day after the announcement date. The Current Principal Amount on such record date will be divided by four to reflect the 4:1 split of your Securities. Any adjustment of the Current Principal Amount will be rounded to eight decimal places. A corresponding adjustment will be made to the Floor Level for purposes of determining whether an Acceleration upon Minimum Indicative Value has occurred. For example, if the Securities undergo a 4:1 split, the Floor Level will be divided by 4. The split will become effective at the opening of trading of the Securities on the Business Day immediately following the record date.

In the case of a reverse split, we reserve the right to address odd numbers of Securities (commonly referred to as “partials”) in a manner determined by us in our sole discretion. If the Securities undergo a 1:4 reverse split, every investor who holds four Securities via DTC on the relevant record date will, after the reverse split, hold only one Security and adjustments will be made as described below. The record date for the reverse split will be on the tenth Business Day after the announcement date. The Current Principal Amount on such record date will be multiplied by four to reflect the 1:4 reverse split of your Securities. Any adjustment of the Current Principal Amount will be rounded to eight decimal places. A corresponding adjustment will be made to the Floor Level for purposes of determining whether an Acceleration upon Minimum Indicative Value has occurred. For example, if the securities undergo a 1:4 reverse split, the Floor Level will be multiplied by 4. The reverse split will become effective at the opening of trading of the Securities on the Business Day immediately following the record date.

Holders who own a number of Securities on the record date that is not evenly divisible by four will receive the same treatment as all other holders for the maximum number of Securities they hold which is evenly divisible by four, and we will have the right to compensate holders for their remaining or “partial” Securities in a manner determined by us in our sole discretion. Our current intention is to provide holders with a cash payment for their partials on the 17th Business Day following the announcement date in an amount equal to the appropriate percentage of the closing indicative value of the reverse split-adjusted Securities on the 14th Business Day following the announcement date. For example, a holder who held 23 Securities via DTC on the record date would receive five post-reverse split Securities on the immediately following Business Day, and a cash payment on the 17th Business Day following the announcement date that is equal to 3/4ths of the Current Principal Amount of the reverse split-adjusted Securities on the 14th Business Day following the announcement date.

General Terms of the Securities

In this section, references to “holders” or “you” mean those who own the Securities registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through DTC or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series A” above.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series A” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series A” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series A are described under “Medium-Term Notes, Series A” above. The terms described here supplement those described in “Medium-Term Notes, Series A” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

Interest or Coupons

We will not pay you any interest or coupons during the term of the Securities.

Payment at Maturity

The “Maturity Date” for each series of Securities will be the third Trading Day after the last Trading Day in the applicable Measurement Period, which we refer to in this section “— Payment at Maturity” as the “Final Measurement Period”. The scheduled Maturity Date is identified in “Principal Terms” above.

For each Security, unless earlier called, redeemed or accelerated, you will receive at maturity a cash payment equal to:

- (a) the product of (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day in the Final Measurement Period, minus
- (b) the Accrued Fees as of such last Trading Day.

If the amount calculated above is less than zero, the payment at maturity will be zero.

You may lose some or all of your initial investment at maturity. Because the Accrued Fees reduce your final payment, the quarterly compounded leveraged return of the Index will need to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, in order for you to receive an aggregate amount over the term of the Securities of any series equal to at least the initial investment of your Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset the negative effect of the Accrued Fees and the Loss Rebalancing Fees, if applicable, or if the quarterly compounded leveraged return of the Index is negative, you will lose some or all of your investment.

The Accrued Fees will be calculated as of the last Trading Day in the Final Measurement Period as the sum of (i) the Accrued Tracking Fee as of such last Trading Day and (ii) the Accrued Financing Charge as of such last Trading Day.

The “Financing Level” is, as of any date of determination, an amount that equals the Current Principal Amount.

The “Accrued Financing Charge” as of the last Trading Day of the Final Measurement Period is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date to, and including, such last Trading Day of such Final Measurement Period and the denominator of which is 360, and (c) the Financing Rate.

On the Initial Trade Date, the Accrued Financing Charge for each Security will be \$0.

The “Accrued Tracking Fee” as of the last Trading Day in the Final Measurement Period is an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date to, and including, such last Trading Day in such Final Measurement Period *times* (ii) the Annual Tracking Rate, *divided by* (b) 365.

The “Annual Tracking Rate” is a per annum rate described in “Principal Terms” above.

The “Current Indicative Value” is, as determined by the Calculation Agent as of any date of determination, an amount per Security of any series equal to the product of (i) the Current Principal Amount and (ii) the Index Factor as of such date, calculated using the Index Closing Level on such date as the Index Valuation Level.

The “Principal Amount” of each Security is \$100.00. Each series of the Securities may be issued and sold over time at then-current market prices, which may be significantly higher or lower than the Principal Amount.

For the Initial Calendar Quarter, the Current Principal Amount will equal \$100.00 per Security of the applicable series. For each subsequent calendar

quarter, the Current Principal Amount for each Security of that series will be reset as follows on the Quarterly Reset Date:

New Current Principal Amount = *previous* Current Principal Amount \times Index Factor on the applicable Quarterly Valuation Date — Accrued Fees on the applicable Quarterly Valuation Date

If any series of the Securities undergoes a split or reverse split, the Current Principal Amount of that series will be adjusted accordingly.

For each calendar quarter, the “Quarterly Reset Date” is the first Trading Day of the quarter specified in “Principal Terms” above, subject to adjustment as described under “— Market Disruption Event”; provided, however, that no Quarterly Reset Date will occur on or after the Call Valuation Date or the Acceleration Date.

For each Quarterly Reset Date, the “Quarterly Valuation Date” is the last Trading Day of the previous calendar quarter subject to adjustment as described under “— Market Disruption Event”. The Quarterly Valuation Date is specified in “Principal Terms” above .

The Index Factor will be calculated as follows:

$$1 + (2 \times \text{Index Performance Ratio})$$

The Index Performance Ratio on any Quarterly Valuation Date, any Redemption Valuation Date, or as of the last Trading Day in the applicable Measurement Period, as applicable, will be:

$$\frac{\text{Index Valuation Level} - \text{Quarterly Initial Closing Level}}{\text{Quarterly Initial Closing Level}}$$

The “Index Valuation Level” will equal the arithmetic mean of the Index Closing Levels measured on each Trading Day during the applicable Measurement Period, or the Index Closing Level on any Quarterly Valuation Date or any Redemption Valuation Date, as determined by the Calculation Agent, provided that:

- (1) for Regular Redemptions, if the Redemption Valuation Date falls in a Final Measurement Period, Call Measurement Period, or Acceleration Measurement Period, for the purposes of calculating the Index Performance Ratio as of the Redemption Valuation Date, the Index Valuation Level on the Redemption Valuation Date during such Measurement Period shall equal (a) (i) for each elapsed Trading Day in the Measurement Period from and including the Call Valuation Date, Acceleration Date or Calculation Date, as applicable, to but excluding the Redemption Valuation Date (the “Applicable Date”), the sum of the Index Closing Levels on such Trading Day(s) *plus* (ii) the Index Closing Level on the Applicable Date *times* the number of remaining Trading Days in the Measurement Period from and including the Applicable Date *divided by* (b) the number of Trading Days in the Measurement Period; and
- (2) For a Large Redemption, if the Redemption Valuation Date occurs during an Acceleration Measurement Period, Call Measurement Period, or Final Measurement Period, the Redemption Amount shall equal the Acceleration Amount, Call Settlement or payment at maturity, as applicable.

Unless specified otherwise in “Principal Terms” above, the applicable “Measurement Period” means the five Trading Days from and including the Call Valuation Date, Acceleration Date, Redemption Valuation Date (for a Large Redemption) or the Calculation Date, as applicable, subject to adjustment as described under “General Terms of the Securities — Market Disruption Event”.

The “Quarterly Initial Closing Level” for the Initial Calendar Quarter is specified in “Principal Terms” above and will be the Index Closing Level on the applicable Initial Trade Date. For each subsequent calendar quarter, the Quarterly Initial Closing Level on the Quarterly Reset Date will equal the Index Closing Level on the Quarterly Valuation Date for the previous calendar quarter.

The “Index Closing Level” is, for any series of the Securities, the closing level of the relevant Index as published by the Index Sponsor.

The “Index Sponsor” will be the entity that calculates the level of the relevant Index is specified in “Principal Terms” above.

The “Calculation Date” is specified in “Principal Terms” above.

The “Current Indicative Value”, as determined by the Calculation Agent as of any date of determination, is an amount per Security equal to the product of (i) the Current Principal Amount and (ii) the Index Factor of such date, using the Index Closing Level of such date as the Index Valuation Level.

Unless specified otherwise in “Principal Terms” above, “Trading Day” means any day on which (i) trading is generally conducted on NYSE Arca and (ii) trading is generally conducted on the markets on which the Index Constituent Securities in the relevant Index are traded, in each case as determined by the Calculation Agent.

Early Redemption at the Option of the Holders

You may elect to require UBS to redeem your Securities, subject to a minimum redemption amount of at least 12,500 Securities of the same series. If you elect to have your Securities redeemed and have done so under the redemption procedures described below under “— Redemption Procedures”, you will receive payment for your Securities on the Redemption Date. The first and final Redemption Dates are specified in “Principal Terms” above. For any early redemptions, the applicable “Redemption Valuation Date” means the first Trading Day following the date on which you deliver a redemption notice to UBS in compliance with the redemption procedures. For any Large Redemption (as defined below), the Redemption Valuation Date will be the first Trading Day in the applicable Large Redemption Measurement Period. If a Redemption Valuation Date for a Large Redemption occurs during an Acceleration Measurement Period, Call Measurement Period or Final Measurement Period, the Redemption Amount shall equal the Acceleration Amount, Call Settlement or payment at maturity, as applicable.

To satisfy the minimum redemption amount of 12,500 Securities, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 12,500 Securities of the same series; however, there can be no assurance that they can or will do so. We may from time to time in our sole discretion reduce, in part or in whole, the minimum redemption amount of 12,500 **Securities of any series. Any such reduction will be applied on a consistent basis for all holders of the Securities of the affected series at the time** the reduction becomes effective.

The Securities will be redeemed and the holders will receive payment for their Securities on the third Business Day following the corresponding Redemption Valuation Date (or the last Trading Day in the applicable Large Redemption Measurement Period for a Large Redemption), or if such third day is not a Business Day, the next following Business Day (the “Redemption Date”). In addition, if a call notice has been issued, if acceleration has been triggered, or the Final Measurement Period has commenced, in each case with respect to any series of the Securities, for Regular Redemptions the last permitted Redemption Valuation Date for that series of Securities will be the second Trading Day in the applicable Call Measurement Period, Acceleration Measurement Period, or the Final Measurement Period, as applicable. For a Large Redemption, If the Redemption Valuation Date occurs during an Acceleration Measurement Period, Call Measurement Period, or Final Measurement Period, the Redemption Amount shall equal the Acceleration Amount, Call Settlement or payment at maturity, as applicable and the Redemption Date will be the third Business Day following the last Trading Day in the applicable Measurement Period. Any applicable Redemption Valuation Date is subject to adjustment as described under “— Market Disruption Event”.

A “Regular Redemption” means an early redemption of Securities of a given series in an amount greater than or equal to the minimum redemption amount of 12,500 Securities but less than the large redemption amount of 2,000,000 Securities.

A “Large Redemption” means an early redemption of Securities of a given series in an amount equal to or greater than 2,000,000 Securities. For purposes of determining whether an early redemption is a Regular Redemption or a Large Redemption, UBS will aggregate all redemption requests received prior to 12:00 noon (New York City time) on a given Trading Day.

Regular Redemptions

If you exercise your right to have us redeem your Securities and such redemption qualifies as a Regular Redemption, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the applicable Redemption Valuation Date, minus
- (b) the Accrued Fees as of such Redemption Valuation Date, minus
- (c) the Redemption Fee.

Large Redemptions

If you exercise your right to have us redeem your Securities and such redemption qualifies as a Large Redemption, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day in the applicable Measurement Period, which we refer to in this section “— Early Redemption at the Option of the Holders” as the “Large Redemption Measurement Period”, minus
- (b) the Accrued Fees as of such last Trading Day, minus
- (c) the Redemption Fee.

We refer to the cash payments described above as the “Redemption Amount”.

If the amount calculated above is less than zero, the payment upon early redemption will be zero. We will inform you of such Redemption Amount two Business Days preceding the applicable Redemption Date.

You may lose some or all of your initial investment upon early redemption. Because the Accrued Fees and the Redemption Fee reduce your final payment, the quarterly compounded leveraged return of the Index will need to be sufficient to offset the negative effect of the Accrued Fees and the Redemption Fee, if applicable, in order for you to receive an aggregate amount over the term of the Securities equal to your initial investment in the Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset such a negative effect or if the quarterly compounded leveraged return of the Index is negative, you will lose some or all of your investment upon early redemption.

The Accrued Fees will be calculated as of any Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period) as the sum of (i) the Accrued Tracking Fee as of such date and (ii) the Accrued Financing Charge as of such date.

The “Accrued Tracking Fee” as of any Redemption Valuation Date is an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date (or, if the Redemption Valuation Date falls in the Initial Calendar Quarter, the Initial Trade Date) to, and including such Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period) *times* (ii) the Annual Tracking Rate, *divided by* (b) 365.

The “Accrued Financing Charge” as of any Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period) is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date (or if the Redemption Valuation Date or last Trading Day of the applicable Large Measurement Period occurs prior to the initial Quarterly Valuation Date, the period from, and excluding, the Initial Trade Date) to, and including, such Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period), and the denominator of which is 360, and (c) the Financing Rate.

The “Redemption Fee” means, as of any date of determination for a series of Securities, an amount per Security equal to the product of (a) 0.125%, (b) the Current Principal Amount and (c) the Index Factor as of the applicable Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period).

We discuss these matters in the accompanying prospectus under “Description of Debt Securities We May Offer — Redemption and Repayment”.

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner. Any series of Securities may trade at, above, or below its indicative value.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption to UBS via email no later than 12:00 noon (New York City time) on the Trading Day immediately preceding the applicable Redemption Valuation Date. If we receive your notice by the time specified in the preceding sentence, we will respond by sending you a confirmation of redemption;
- deliver the signed confirmation of redemption to us via facsimile in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date (or the applicable last Trading Day in the Large Redemption Measurement Period for Large Redemptions) at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m. (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 12:00 noon (New York City time), or your confirmation of redemption after 5:00 p.m. (New York City time), on the Trading Day prior to the applicable Redemption Valuation Date, your notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

UBS’s Call Right

We have the right to redeem all, but not less than all, of the Securities of any series upon not less than eighteen calendar days’ prior notice to the holders of the Securities of that series, such redemption to occur on any Trading Day specified in “Principal Terms” above through and including the

Calculation Date specified in “ Principal Terms” above. Upon early redemption in the event we exercise this right, you will receive a cash payment equal to

- (a) the product of (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day in the applicable Measurement Period, which we refer to in this section “— UBS’s Call Right” as the “Call Measurement Period”, minus
- (b) the Accrued Fees as of such last Trading Day.

We refer to this cash payment as the “Call Settlement Amount”.

If the amount calculated above is less than zero, the payment upon UBS’s exercise of its call right will be zero.

If UBS issues a call notice on any Trading Day, the “Call Valuation Date” will be the fifth Trading Day following the Trading Day on which the call notice is issued.

We will inform you of such Call Settlement Amount on the first Business Day following the last Trading Day in the Call Measurement Period.

The holders will receive payment for their Securities on a date that is at least three, but not greater than six, Trading Days following the last Trading Day in the Call Measurement Period (the “Call Settlement Date”). We will inform you of such Call Settlement Date in the call notice. If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event”.

You may lose some or all of your initial investment at call. Because the Accrued Fees and Loss Rebalancing Fees, if applicable, reduce your final payment, the quarterly compounded leveraged return of the Index will need to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, in order for you to receive an aggregate amount over the term of the Securities equal to at least initial investment of your Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, or if the quarterly compounded leveraged return of the Index is negative, you will lose some or all of your investment at call.

The Accrued Fees will be calculated as of the last Trading Day in the Call Measurement Period as the sum of (i) the Accrued Tracking Fee as of such last Trading Day and (ii) the Accrued Financing Charge as of such last Trading Day.

The “Accrued Tracking Fee” as of the last Trading Day in the Call Measurement Period is an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date to, and including such Call Valuation Date *times* (ii) the Annual Tracking Rate, *divided by* (b) 365.

The “Accrued Financing Charge” as of the last Trading Day of the Call Measurement Period is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date to, and including, such last Trading Day of such Call Measurement Period and the denominator of which is 360, and (c) the Financing Rate.

Acceleration Upon Minimum Indicative Value

If, at any time, the indicative value for any series of the Securities on any Trading Day equals the Floor Level or less (such day, an “Acceleration Date”), all issued and outstanding Securities of that series will be automatically accelerated and mandatorily redeemed by UBS (even if the indicative value of that series would later exceed the Floor Level on such Acceleration Date or any subsequent Trading Day during the applicable Measurement Period, which we refer to in this section “— Acceleration Upon Minimum Indicative Value” as the “Acceleration Measurement Period”) for a cash payment equal to

- (a) the product of (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day of the Acceleration Measurement Period, minus
- (b) the Accrued Fees as of such last Trading Day.

We refer to this cash payment as the “Acceleration Amount”. The “Floor Level” of any series of the Securities will be specified in “Principal Terms” above. If any series of the Securities undergoes a split or reverse split, the Floor Level of that series will be adjusted accordingly. If the minimum indicative value threshold of any series of Securities has been breached, you will receive on the Acceleration Settlement Date only the Acceleration Amount in respect of your investment in that series of Securities.

You may lose some or all of your initial investment upon an acceleration upon minimum indicative value. Because the Accrued Fees and Loss Rebalancing Fees, if applicable, reduce your final payment, the quarterly compounded leveraged return of the Index will need to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, in order for you to receive an aggregate amount over the term of the Securities equal to at least the initial investment of your Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset the negative effect of the Accrued Fees and the Loss Rebalancing Fees, if applicable, or if the quarterly compounded leveraged return of the Index is negative, you will lose some or all of your investment upon an acceleration upon minimum indicative value.

The Accrued Fees will be calculated as of any date of determination for any series of Securities as the sum of (i) the Accrued Tracking Fee as of the last Trading Day of the Acceleration Measurement Period and (ii) the Accrued Financing Charge as of the last Trading Day of the Acceleration Measurement Period.

The “Accrued Tracking Fee” as of the last Trading Day of the Acceleration Measurement Period will be an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date (or, if the Acceleration Date falls in the Initial Calendar Quarter, the Initial Trade Date) to, and including, such last Trading Day in such Measurement Period, as applicable, *times* (ii) the Annual Tracking Rate, *divided by* (b) 365.

The “Accrued Financing Charge” as of the last Trading Day of the Acceleration Measurement Period is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date (or if the Acceleration Date occurs prior to the initial Quarterly Valuation Date, the period from, and excluding, the Initial Trade Date) to, and including, such last Trading Day of such Measurement Period as applicable, and the denominator of which is 360, and (c) the Financing Rate.

The “Acceleration Settlement Date” will be the third Trading Day following the last Trading Day of the Acceleration Measurement Period.

Subject to the prior verification by the Calculation Agent that the indicative value of equal or less than the Floor Level was accurately calculated by the relevant calculation agent specified in “Principal Terms” above and in each case with respect to a series of Securities, UBS must provide notice to the holders of that series of the Securities that the minimum indicative value threshold has been breached not less than five calendar days prior to the Acceleration Settlement Date. For a detailed description of how the intraday indicative value of the Securities is calculated see “Valuation of the Index and the Securities”.

Loss Rebalancing Event Upon Large Decreases in the Indicative Value

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0 based on the Index Performance Ratio as of the LR Valuation Date. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event. In addition, each time a Loss Rebalancing Event occurs, you will incur a Loss Rebalancing Fee, as defined below.

A “Loss Rebalancing Event” means if, at any time, the closing indicative value for any series of the Securities on any Trading Day decreases 40% in value from the closing indicative value of that series of the Securities on the previous Quarterly Valuation Date. A Loss Rebalancing Event may occur irrespective of whether a Market Disruption Event also occurs on that Trading Day.

With respect to a Loss Rebalancing Event, the “LR Valuation Date” is the first Trading Day following a Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event”.

With respect to a LR Valuation Date, the “LR Reset Date” is the first Trading Day following a LR Valuation Date, subject to adjustment as described under “— Market Disruption Event”.

On the LR Reset Date, the Current Principal Amount for each Security of that series will be reset as follows:

$$\text{New Current Principal Amount} = 99.995\% \times \text{LR Current Principal Amount.}$$

$$\text{LR Current Principal Amount} = \text{previous Current Principal Amount} \times \text{Index Factor on the applicable LR Valuation Date} - \text{Accrued Fees on the applicable LR Valuation Date.}$$

If the amount calculated above is less than zero, the payment at maturity will be zero.

On the LR Reset Date, the LR Current Principal Amount will be reset exactly like the “New Current Principal Amount” on a Quarterly Reset Date, except that:

- (1) the LR Reset Date will be the Quarterly Reset Date;
- (2) the Index Factor and Index Performance Ratio will be calculated on the LR Valuation Date;
- (3) the Index Valuation Level for purposes of calculating the Index Performance Ratio will be computed using the Index Closing Level on the LR Valuation Date;
- (4) for the next reset date, the Quarterly Initial Closing Level on the applicable reset date will equal the Index Closing Level on the LR Valuation Date;
- (5) Accrued Fees (the Accrued Tracking Fees and Accrued Financing Charge) will be computed as of the LR Valuation Date as if the LR Valuation Date was a Quarterly Valuation Date; and
- (6) the Financing Level will be reduced the new Current Principal Amount.

The Financing Rate will remain constant until the next Quarterly Reset Date, *provided however* that if the reset date financing rate (determined in accordance with the definition of “Financing Rate” two London business days preceding LR Valuation Date and referred to as “L2”) is less than the actual Financing Rate (“L1”), the Current Principal Amount will be further reduced by an amount equal to:

$(L1-L2) \times (\text{Current Principal Amount} - \text{New Current Principal Amount}) \times (\text{the days remaining in the quarter from and excluding the LR Valuation Date to and including the next Quarterly Valuation Date}) \text{ divided by } 360.$

Note that each time a Loss Rebalancing Event occurs, you will incur a 0.05% reduction in the LR Current Principal Amount of your Securities and you also may have a further reduction due to the breakage computation in the preceding proviso. We will refer to these reductions as a “Loss Rebalancing Fee”.

Loss Rebalancing Events can occur multiple times. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Each Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0 based on the Index Performance Ratio as of the LR Valuation Date. This means that your Securities will entitle you to less of a positive gain in value relative to before the occurrence of the Loss Rebalancing Event. In addition, each time a Loss Rebalancing Event occurs, you will incur a Loss Rebalancing Fee. This fee will reduce the amount of your return (or increase your loss) on the Maturity Date, early redemption, acceleration or exercise by UBS of its call right.

Calculation Agent

UBS Securities LLC will act as the Calculation Agent. The Calculation Agent will determine, among other things, the Index Valuation Level, the Index Performance Ratio, the Index Factor, the Current Principal Amount, the Current Indicative Value, the Accrued Fees, the Accrued Financing Charge, the Financing Level, the Financing Rate, the Accrued Tracking Fee, the Redemption Fee, if any, the Loss Rebalancing Fee, if any, the payment at maturity, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, if any, that we will pay you on the Call Settlement Date, if applicable, or the Acceleration Amount, if any, that we will pay you on the Acceleration Settlement Date, if applicable, based on the relevant Index levels calculated by the Calculation Agent, as adjusted, and whether any day is a Business Day or Trading Day. The Calculation Agent will also be responsible for determining whether a Market Disruption Event has occurred, whether the relevant Index has been discontinued or is otherwise unavailable and whether there has been a material change in the relevant Index. All determinations made by the Calculation Agent will be at the sole discretion of the Calculation Agent for any series of the Securities and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different Calculation Agent for any series of the Securities from time to time without your consent and without notifying you.

The Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity, early redemption, acceleration, or upon exercise by UBS of its call right on or prior to 12:00 p.m., New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, the Acceleration Settlement Date or the Call Settlement Date, as applicable.

All dollar amounts related to determination amounts payable per Security for any series of Securities will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid on the aggregate principal amount of such Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the relevant Index has occurred or is continuing on an Averaging Date (as defined below), the Index Closing Level for such Averaging Date will be determined by the Calculation Agent or one of its affiliates on the first succeeding Trading Day on which a Market Disruption Event does not occur or is not continuing (the “Deferred Averaging Date”) with respect to the relevant Index irrespective of whether, pursuant to such determination, the Deferred Averaging Date would fall on a date originally scheduled to be an Averaging Date. If the postponement described in the preceding sentence results in the Index Closing Level being calculated on a day originally scheduled to be an Averaging Date, for purposes of determining the Index Closing Level on any Averaging Date, the Calculation Agent or one of its affiliates, as the case may be, will apply the Index Closing Level for such Deferred Averaging Date (i) on the date(s) of the original Market Disruption Event and (ii) such Averaging Date. For example, if the applicable Measurement Period for purposes of calculating the Call Settlement Amount is based on the arithmetic mean of the Index Closing Levels on October 3, October 4, October 5, October 6 and October 7, and there is a Market Disruption Event with respect to the relevant Index on October 3, but no other Market Disruption Event during such Measurement Period, then the Index Closing Level on October 4 will be used twice to calculate the Call Settlement Amount, and the Call Settlement Amount will be determined based on the arithmetic mean of the Index Closing Levels on October 4, October 4, October 5, October 6 and October 7. The same approach would be applied if there is a Market Disruption Event during any Measurement Period.

If the Redemption Valuation Date, for purposes of calculating a Redemption Amount for a Regular Redemption, is based on the Index Closing Level on October 3 and there is a Market Disruption Event with respect to the Index on October 3, then the Index Closing Level on October 4 will be used to calculate the Redemption Amount. If a Market Disruption Event occurs on any Quarterly Valuation Date, or LR Valuation Date, the Index Closing Level for such date will be determined by the Calculation Agent or one of its affiliates on the first succeeding Trading Day on which a Market Disruption Event does not occur or is not continuing.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the final Averaging Date, Quarterly Valuation Date, the Redemption Valuation Date, or LR Valuation Date, as applicable, occurring more than eight Trading Days following the day originally scheduled to be such final Averaging Date or other applicable date. If the eighth Trading Day following the date originally scheduled to be the final Averaging Date, Quarterly Valuation Date, Redemption Valuation Date, or LR Valuation Date, as applicable, a Market Disruption Event has occurred or is continuing with respect to the relevant Index on such eighth Trading Day, the Calculation Agent or one of its affiliates will determine the Index Closing Level based on its estimate of the Index Closing Level that would have prevailed on such eighth Trading Day but for such Market Disruption Event. If any Quarterly Valuation Date or LR Valuation Date is postponed as described above, the succeeding Quarterly Reset Date or LR Reset Date will occur on the next Trading Day following the postponed Quarterly Valuation Date or LR Valuation Date, as applicable.

An “Averaging Date” means each of the Trading Day(s) during any Measurement Period, subject to adjustment as described herein.

Notwithstanding the occurrence of one or more of the events below, which may, in the Calculation Agent’s discretion, constitute a Market Disruption Event with respect to the relevant Index, the Calculation Agent in its discretion may waive its right to postpone the Index Closing Level if it determines that one or more of the below events has not and is not likely to materially impair its ability to determine the Index Closing Level on such date.

Any of the following will be a Market Disruption Event with respect to the relevant Index, in each case as determined by the Calculation Agent:

- (a) suspension, absence or material limitation of trading in a material number of the Index Constituent Securities for more than two hours or during the one-half hour before the close of trading in the applicable market or markets;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the relevant Index or to a material number of Index Constituent equity interests in the primary market or markets for those contracts for more than two hours of trading or during the one-half hour before the close of trading in that market;
- (c) the relevant Index is not published; or
- (d) in any other event, if the Calculation Agent determines that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging”.

The following events will not be Market Disruption Events with respect to the relevant Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- (b) a decision to permanently discontinue trading in the options or futures contracts relating to the relevant Index or any Index Constituent equity interests.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the relevant Index or any Index Constituent equity interests are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Discontinuance of or Adjustments to the Relevant Index; Alteration of Method of Calculation

If the Index Sponsor or another entity that publishes the Index discontinues publication of the relevant Index, or if our right to use the Index is suspended or terminated, and the Index Sponsor or such other entity publishes a successor or substitute index that the Calculation Agent determines to be comparable to the discontinued relevant Index (such index being referred to herein as a “Successor Index”), then the Index Closing Level for such Successor Index will be determined by the Calculation Agent by reference to the Successor Index on the dates and at the times as of which the Index Closing Levels for such Successor Index are to be determined.

Upon any selection by the Calculation Agent of a Successor Index, the Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor discontinues publication of the relevant Index, or if our right to use the Index is suspended or terminated, prior to, and such discontinuation or unavailability is continuing on, any Quarterly Valuation Date, any Averaging Date, any Redemption Valuation Date or any other relevant date on which the Index Closing Level is to be determined and the Calculation Agent determines that no Successor Index is available at such time, or the Calculation Agent has previously selected a Successor Index and publication of such Successor Index is discontinued prior to, and such discontinuation is continuing on any relevant date on which the Index Closing Level is to be determined, then the Calculation Agent will determine the Index Closing Level using the closing level and published share weighting of each Index Constituent Security included in the relevant Index or Successor Index, as applicable, immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the relevant Index or Successor Index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the relevant Index or a Successor Index, or the value thereof, is changed in a material respect, or if the relevant Index or a Successor Index is in any other way modified so that the level of the relevant Index or such Successor Index does not, in the opinion of the Calculation Agent, fairly represent the level of the relevant Index or such Successor Index had such changes or modifications not been made, then the Calculation Agent will make such calculations and adjustments as, in the judgment of the Calculation Agent, may be necessary in order to arrive at a level of an index comparable to the relevant Index or such Successor Index, as the case may be, as if such changes or modifications had not been made, and the Calculation Agent will calculate the levels for the relevant Index or such Successor Index with reference to the relevant Index or such Successor Index, as adjusted. The Calculation Agent will accordingly calculate the relevant Index levels, Accrued Fees and the Redemption Fee and/or the Loss Rebalancing Fees, if applicable, based on the Index levels calculated by the Calculation Agent, as adjusted. Accordingly, if the method of calculating the relevant Index or a Successor Index is modified so that the level of the relevant Index or such Successor Index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the relevant Index), which, in turn, causes the level of the relevant Index or such Successor Index to be a fraction of what it would have been if there had been no such modification, then the Calculation Agent will make such calculations and adjustments in order to arrive at a level for the relevant Index or such Successor Index as if it had not been modified (*e.g.*, as if such split had not occurred).

Redemption Price Upon Optional Tax Redemption

We have the right to redeem any series of the Securities in the circumstances described under “Description of Debt Securities We May Offer — Optional Tax Redemption” in the accompanying prospectus. If we exercise this right, the redemption price of that series of the Securities will be determined by the Calculation Agent in a manner reasonably calculated to preserve your and our relative economic position.

Default Amount on Acceleration

If an event of default occurs and the maturity of any series of the Securities is accelerated, we will pay the default amount in respect of the principal of the that series of Securities at maturity. We describe the default amount below under “— Default Amount”.

For the purpose of determining whether the holders of our Medium-Term Notes, Series A are entitled to take any action under the indenture, we will treat the outstanding principal amount of each series of Securities as the outstanding principal amount of the Medium-Term Notes, Series A constituted by that series of Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series A, holders of specified percentages in principal amount of all Medium-Term Notes, Series A, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series A, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series A, accelerating the maturity of the Medium-Term Notes, Series A after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium Term Notes, Series A” under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants”.

Default Amount

The default amount for any series of the Securities on any day will be an amount, in U.S. dollars for the principal of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities of the accelerated series. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, plus
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities of the accelerated series, which we describe below, the holders of that series of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or

- every quotation of that kind obtained is objected to within five Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a division of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity, early redemption, acceleration or upon exercise by UBS of its call right will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in "Medium Term Notes, Series A" under "Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities".

Defeasance

Neither full defeasance nor covenant defeasance, as described in "Medium Term Notes, Series A" under "Description of Debt Securities We May Offer — Defeasance and Covenant Defeasance", will apply to the Securities.

Reissuances or Reopened Issues

We may, at our sole discretion, "reopen" or reissue any series of the Securities. We intend to issue the Securities initially in an amount having the aggregate offering price specified in "Principal Terms" above. However, we may issue additional Securities in amounts that exceed the amount specified in "Principal Terms" above at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other Securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to "Medium Term Notes, Series A" under "Description of Debt Securities We May Offer — Amounts That We May Issue".

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities of any series and will have the same CUSIP number and will trade interchangeably with that series of the Securities immediately upon settlement. Any additional issuances will increase the aggregate Principal Amount of the outstanding Securities of the class, plus the aggregate Principal Amount of any Securities bearing the same CUSIP number that are issued pursuant to any future issuances of Securities bearing the same CUSIP number. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC's settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

Additional Terms of the Securities

The general terms of the Securities described above are modified by the specific definitions and terms below.

"Intraday Indicative Value" means the approximate intrinsic economic value of the Securities calculated by NYSE Arca, Inc. and published on Bloomberg (based in part on information provided by the Index Sponsor) or a successor via the facilities on the Consolidated Tape Association under the symbol "FBGXIV".

“Trading Day” means any day on which (i) trading is generally conducted on NYSE Arca and (ii) trading is generally conducted on the Primary Exchanges on which the Index Constituent Securities are traded, in each case as determined by the Calculation Agent.

“Primary Exchange” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading for such Index Constituent Security or such constituent underlying a successor index.

2. UBS AG FI Enhanced Europe 50 ETN due February 12, 2026

Principal Terms:

Principal Amount: \$500,000,000

Issuer: UBS AG, London Branch

Initial Trade Date: February 12, 2016

Initial Settlement Date: February 18, 2016

Term: 10 years, subject to your right to receive payment for your Securities upon redemption, acceleration upon minimum indicative value or exercise by UBS of its call right, each as described below.

Denomination/Principal Amount: \$100.00 per Security

Maturity Date: February 12, 2026, subject to adjustment

Underlying Index: The return on the Securities is linked to the STOXX Europe 50® USD (Gross Return) Index. The level of the Index reflects both the price performance of the Index Constituent Securities and the reinvestment of dividends on the Index Constituent Securities. The level of the Underlying Index is published approximately every 15 seconds from 3:00 a.m. to 12:00 p.m., New York City time, and a daily Index Closing Level is published at approximately 12:00 p.m., New York City time, on each Trading Day.

Annual Tracking Rate: 0.95% per annum

Financing Spread: 1.00% per annum

Loss Rebalancing Fee: Upon each occurrence of a Loss Rebalancing Event, you will incur a 0.05% reduction in the LR Current Principal Amount of Your Securities and may also have a further reduction due to a breakage computation. See “— Loss Rebalancing Event Upon Large Decreases in the Indicative Value”.

First Redemption Date: February 25, 2016 for Regular Redemptions, March 2, 2016 for Large Redemptions

Final Redemption Date: February 9, 2026

First Call Date: The first date that UBS may exercise its Call Right is February 21, 2017 Quarterly Initial Closing Level for the Initial Calendar Quarter: 1,191.12, the Index Closing Level (as defined below) on the Initial Trade Date.

Quarterly Reset Dates: For each calendar quarter, the Quarterly Reset Date is the first Trading Day of that quarter beginning on April 1, 2016 and ending on January 2, 2026, subject to adjustment.

Quarterly Valuation Dates: For each Quarterly Reset Date, the Quarterly Valuation Date is the last Trading Day of the previous calendar quarter, beginning on March 31, 2016 and ending on December 31, 2025, subject to adjustment.

Floor Level: The “Floor Level” is equal to \$20.00 (subject to adjustment as described under “Valuation of the Index and the Securities — Split or Reverse Split of the Securities”).

Index Sponsor: STOXX Limited (“STOXX”), a company owned by Deutsche Börse AG.

Listing: The Securities have been approved for listing, subject to official notice of issuance, on NYSE Arca under the symbol “FIEE.”

Calculation Date: February 3, 2026, unless that day is not a Trading Day, in which case the Calculation Date will be the next Trading Day, subject to adjustment.

Index Symbol: SX5PGV (NYSE and Bloomberg)

Intraday Indicative Value Symbol: FIEEIV (Bloomberg)

CUSIP No.: 90274D234

ISIN No.: US90274D2348

General Terms of the Securities

In this section, references to “holders” or “you” mean those who own the Securities registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through DTC or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

We describe the general terms of the Securities in more detail below.

Interest or Coupons

We will not pay you any interest or coupons during the term of the Securities.

Payment at Maturity

The “Maturity Date” for each series of Securities will be the third Trading Day after the last Trading Day in the applicable Measurement Period, which we refer to in this section “— Payment at Maturity” as the “Final Measurement Period”. The scheduled Maturity Date is identified in “Principal Terms” above.

For each Security, unless earlier called, redeemed or accelerated, you will receive at maturity a cash payment equal to:

- (a) the product of (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day in the Final Measurement Period, minus
- (b) the Accrued Fees as of such last Trading Day.

If the amount calculated above is less than zero, the payment at maturity will be zero.

You may lose all or a substantial portion of your investment at maturity. Because the Accrued Fees reduce your final payment, the quarterly compounded leveraged return of the Index will need to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, in order for you to receive an aggregate amount over the term of the Securities of any series equal to at least the initial investment of your Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset the negative effect of the Accrued Fees and the Loss Rebalancing Fees, if applicable, or if the quarterly compounded leveraged return of the Index is negative, you will lose all or a substantial portion of your investment.

The Accrued Fees will be calculated as of the last Trading Day in the Final Measurement Period as the sum of (i) the Accrued Tracking Fee as of such last Trading Day and (ii) the Accrued Financing Charge as of such last Trading Day.

The “Financing Level” is, as of any date of determination, an amount that equals the Current Principal Amount.

The “Accrued Financing Charge” as of the last Trading Day of the Final Measurement Period is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date to, and including, such last Trading Day of such Final Measurement Period and the denominator of which is 360, and (c) the Financing Rate.

On the Initial Trade Date, the Accrued Financing Charge for each Security will be \$0.

The “Accrued Tracking Fee” as of the last Trading Day in the Final Measurement Period is an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date to, and including, such last Trading Day in such Final Measurement Period *times* (ii) the Annual Tracking Rate, *divided* by (b) 365.

The “Annual Tracking Rate” is a per annum rate described in “Principal Terms” above.

The “Current Indicative Value” is, as determined by the Calculation Agent as of any date of determination, an amount per Security of any series equal to the product of (i) the Current Principal Amount and (ii) the Index Factor as of such date, calculated using the Index Closing Level on such date as the Index Valuation Level.

The “Principal Amount” of each Security is \$100.00. Each series of the Securities may be issued and sold over time at then-current market prices, which may be significantly higher or lower than the Principal Amount.

For the Initial Calendar Quarter, the Current Principal Amount will equal \$100.00 per Security of the applicable series. For each subsequent calendar quarter, the Current Principal Amount for each Security of that series will be reset as follows on the Quarterly Reset Date:

$$\text{New Current Principal Amount} = \text{previous Current Principal Amount} \times \text{Index Factor on the applicable Quarterly Valuation Date} - \text{Accrued Fees on the applicable Quarterly Valuation Date}$$

If any series of the Securities undergoes a split or reverse split, the Current Principal Amount of that series will be adjusted accordingly.

For each calendar quarter, the “Quarterly Reset Date” is the first Trading Day of the quarter specified in “Principal Terms” above, subject to adjustment as described under “— Market Disruption Event”; provided, however, that no Quarterly Reset Date will occur on or after the Call Valuation Date or the Acceleration Date.

For each Quarterly Reset Date, the “Quarterly Valuation Date” is the last Trading Day of the previous calendar quarter subject to adjustment as described under “— Market Disruption Event”. The Quarterly Valuation Date is specified in “Principal Terms” above .

The Index Factor will be calculated as follows:

$$1 + (2 \times \text{Index Performance Ratio})$$

The Index Performance Ratio on any Quarterly Valuation Date, any Redemption Valuation Date, or as of the last Trading Day in the applicable Measurement Period, as applicable, will be:

$$\frac{\text{Index Valuation Level} - \text{Quarterly Initial Closing Level}}{\text{Quarterly Initial Closing Level}}$$

The “Index Valuation Level” will equal the arithmetic mean of the Index Closing Levels measured on each Trading Day during the applicable Measurement Period, or the Index Closing Level on any Quarterly Valuation Date or any Redemption Valuation Date, as determined by the Calculation Agent, provided that:

- (1) for Regular Redemptions, if the Redemption Valuation Date falls in a Final Measurement Period, Call Measurement Period, or Acceleration Measurement Period, for the purposes of calculating the Index Performance Ratio as of the Redemption Valuation Date, the Index Valuation Level on the Redemption Valuation Date during such Measurement Period shall equal (a) (i) for each elapsed Trading Day in the Measurement Period from and including the first Trading Day in such Measurement Period to but excluding the Redemption Valuation Date (the “Applicable Date”), the sum of the Index Closing Levels on such Trading Day(s) plus (ii) the Index Closing Level on the Applicable Date times the number of remaining Trading Days in the Measurement Period from and including the Applicable Date *divided by* (b) the number of Trading Days in the Measurement Period; and
- (2) For a Large Redemption, if the Redemption Valuation Date occurs during an Acceleration Measurement Period, Call Measurement Period, or Final Measurement Period, the Redemption Amount shall equal the Acceleration Amount, Call Settlement Amount or payment at maturity, as applicable.

Unless specified otherwise in “Principal Terms” above, the applicable “Measurement Period” means the five Trading Days from and including the Call Valuation Date, Acceleration Date, Redemption Valuation Date (for a Large Redemption) or the Calculation Date, as applicable, subject to adjustment as described under “— Market Disruption Event”.

The “Quarterly Initial Closing Level” for the Initial Calendar Quarter is specified in “Principal Terms” above and will be the Index Closing Level on the applicable Initial Trade Date. For each subsequent calendar quarter, the Quarterly Initial Closing Level on the Quarterly Reset Date will equal the Index Closing Level on the Quarterly Valuation Date for the previous calendar quarter.

The “Index Closing Level” is, for any series of the Securities, the closing level of the relevant Index as published by the Index Sponsor.

The “Index Sponsor” will be the entity that calculates the level of the relevant Index is specified in “Principal Terms” above.

Unless specified otherwise in “Principal Terms” above, “Trading Day” means any day on which (i) trading is generally conducted on NYSE Arca and (ii) trading is generally conducted on the markets on which the Index Constituent Securities in the relevant Index are traded, in each case as determined by the Calculation Agent.

Early Redemption at the Option of the Holders

You may elect to require UBS to redeem your Securities, subject to a minimum redemption amount of at least 12,500 Securities of the same series. If you elect to have your Securities redeemed and have done so under the redemption procedures described below under “— Redemption Procedures”, you will receive payment for your Securities on the Redemption Date. The first and final Redemption Dates are specified in “Principal Terms” above. For any early redemptions, the applicable “Redemption Valuation Date” means the first Trading Day following the date on which you deliver a redemption notice to UBS in compliance with the redemption procedures. For any Large Redemption (as defined below), the Redemption Valuation Date will be the first Trading Day in the applicable Large Redemption Measurement Period. If a Redemption Valuation Date for a Large Redemption occurs during an Acceleration Measurement Period, Call Measurement Period or Final Measurement Period, the Redemption Amount shall equal the Acceleration Amount, Call Settlement or payment at maturity, as applicable.

To satisfy the minimum redemption amount of 12,500 Securities, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 12,500 Securities of the same series; however, there can be no assurance that they can or will do so. We may from time to time in our sole discretion reduce, in part or in whole, the minimum redemption amount of 12,500 Securities of any series. Any such reduction will be applied on a consistent basis for all holders of the Securities of the affected series at the time the reduction becomes effective.

The Securities will be redeemed and the holders will receive payment for their Securities on the third Business Day following the corresponding Redemption Valuation Date (or the last Trading Day in the applicable Large Redemption Measurement Period for a Large Redemption), or if such third day is not a Business Day, the next following Business Day (the “Redemption Date”). In addition, if a call notice has been issued, if acceleration has been triggered, or the Final Measurement Period has commenced, in each case with respect to any series of the Securities, for Regular Redemptions the last permitted Redemption Valuation Date for that series of Securities will be the fourth Trading Day in the applicable Call Measurement Period, Acceleration Measurement Period, or the Final Measurement Period, as applicable. For a Large Redemption, if the Redemption Valuation Date occurs during an Acceleration Measurement Period, Call Measurement Period, or Final Measurement Period, the Redemption Amount shall equal the Acceleration Amount, Call Settlement Amount or payment at maturity, as applicable and the Redemption Date will be the third Business Day following the last Trading Day in the applicable Measurement Period. Any applicable Redemption Valuation Date is subject to adjustment as described under

“— Market Disruption Event”.

A “Regular Redemption” means an early redemption of Securities of a given series in an amount greater than or equal to the minimum redemption amount of 12,500 Securities but less than the large redemption amount of 2,000,000 Securities.

A “Large Redemption” means an early redemption of Securities of a given series in an amount equal to or greater than 2,000,000 Securities. For purposes of determining whether an early redemption is a Regular Redemption or a Large Redemption, UBS will aggregate all redemption requests received prior to 12:00 noon (New York City time) on a given Trading Day.

Regular Redemptions

If you exercise your right to have us redeem your Securities and such redemption qualifies as a Regular Redemption, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the applicable Redemption Valuation Date, minus
- (b) the Accrued Fees as of such Redemption Valuation Date, minus
- (c) the Redemption Fee.

Large Redemptions

If you exercise your right to have us redeem your Securities and such redemption qualifies as a Large Redemption, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day in the applicable Measurement Period, which we refer to in this section “— Early Redemption at the Option of the Holders” as the “Large Redemption Measurement Period”, minus
- (b) the Accrued Fees as of such last Trading Day, minus
- (c) the Redemption Fee.

We refer to the cash payments described above as the “Redemption Amount”.

If the amount calculated above is less than zero, the payment upon early redemption will be zero. We will inform you of such Redemption Amount two Business Days preceding the applicable Redemption Date.

You may lose all or a substantial portion of your investment upon early redemption. Because the Accrued Fees and the Redemption Fee reduce your final payment, the quarterly compounded leveraged return of the Index will need to be sufficient to offset the negative effect of the Accrued Fees, the Redemption Fee and/or Loss Redemption Fees, if applicable, in order for you to receive an aggregate amount over the term of the Securities equal to your initial investment in the Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset such a negative effect or if the quarterly compounded leveraged return of the Index is negative, you will lose all or a substantial portion of your investment upon early redemption.

The Accrued Fees will be calculated as of any Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period) as the sum of (i) the Accrued Tracking Fee as of such date and (ii) the Accrued Financing Charge as of such date.

The “Accrued Tracking Fee” as of any Redemption Valuation Date is an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date (or, if the Redemption Valuation Date falls in the Initial Calendar Quarter, the Initial Trade Date) to, and including such Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period) *times* (ii) the Annual Tracking Rate, *divided* by (b) 365.

The “Accrued Financing Charge” as of any Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period) is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date (or if the Redemption Valuation Date or last Trading Day of the applicable Large Measurement Period occurs prior to the initial Quarterly Valuation Date, the period from, and excluding, the Initial Trade Date) to, and including, such Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period), and the denominator of which is 360, and (c) the Financing Rate.

The “Redemption Fee” means, as of any date of determination for a series of Securities, an amount per Security equal to the product of (a) 0.125%, (b) the Current Principal Amount and (c) the Index Factor as of the applicable Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period).

We discuss these matters in “Medium Term Notes, Series B” under “Description of Debt Securities We May Offer — Redemption and Repayment”.

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner. Any series of Securities may trade at, above, or below its indicative value.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption to UBS via email no later than 12:00 noon (New York City time) on the Trading Day immediately preceding the applicable Redemption Valuation Date. If we receive your notice by the time specified in the preceding sentence, we will respond by sending you a confirmation of redemption;
- deliver the signed confirmation of redemption to us via facsimile in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date (or the applicable last Trading Day in the Large Redemption Measurement Period for Large Redemptions) at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m. (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 12:00 noon (New York City time), or your confirmation of redemption after 5:00 p.m. (New York City time), on the Trading Day prior to the applicable Redemption Valuation Date, your notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

UBS’s Call Right

We have the right to redeem all, but not less than all, of the Securities of any series upon not less than eighteen calendar days’ prior notice to the holders of the Securities of that series, such redemption to occur on any Trading Day specified in “Principal Terms” above through and including the Calculation Date specified in “Principal Terms” above. Upon early redemption in the event we exercise this right, you will receive a cash payment equal to

- (a) the product of (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day in the applicable Measurement Period, which we refer to in this section “— UBS’s Call Right” as the “Call Measurement Period”, minus
- (b) the Accrued Fees as of such last Trading Day.

We refer to this cash payment as the “Call Settlement Amount”.

If the amount calculated above is less than zero, the payment upon UBS’s exercise of its call right will be zero.

If UBS issues a call notice on any Trading Day, the “Call Valuation Date” will be the fifth Trading Day following the Trading Day on which the call notice is issued.

We will inform you of such Call Settlement Amount on the first Business Day following the last Trading Day in the Call Measurement Period.

The holders will receive payment for their Securities on a date that is at least three, but not greater than six, Trading Days following the last Trading Day in the Call Measurement Period (the “Call Settlement Date”). We will inform you of such Call Settlement Date in the call notice. If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event”.

You may lose all or a substantial portion of your investment at call. Because the Accrued Fees and Loss Rebalancing Fees, if applicable, reduce your final payment, the quarterly compounded leveraged return of the Index will need to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, in order for you to receive an aggregate amount over the term of the Securities equal to at least initial investment of your Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, or if the quarterly compounded leveraged return of the Index is negative, you will lose all or a substantial portion of your investment at call.

The Accrued Fees will be calculated as of the last Trading Day in the Call Measurement Period as the sum of (i) the Accrued Tracking Fee as of such last Trading Day and (ii) the Accrued Financing Charge as of such last Trading Day.

The “Accrued Tracking Fee” as of the last Trading Day in the Call Measurement Period is an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date to, and including, such last Trading Day in such Call Measurement Period *times* (ii) the Annual Tracking Rate, *divided* by (b) 365.

The “Accrued Financing Charge” as of the last Trading Day of the Call Measurement Period is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date to, and including, such last Trading Day of such Call Measurement Period and the denominator of which is 360, and (c) the Financing Rate.

Acceleration Upon Minimum Indicative Value

If, at any time, the indicative value for any series of the Securities on any Trading Day equals the Floor Level or less (such day, an “Acceleration Date”), all issued and outstanding Securities of that series will be automatically accelerated and mandatorily redeemed by UBS (even if the indicative value of that series would later exceed the Floor Level on such Acceleration Date or any subsequent Trading Day during the applicable Measurement Period, which we refer to in this section “— Acceleration Upon Minimum Indicative Value” as the “Acceleration Measurement Period”) for a cash payment equal to

- (a) the product of (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day of the Acceleration Measurement Period, minus
- (b) the Accrued Fees as of such last Trading Day.

We refer to this cash payment as the “Acceleration Amount”. The “Floor Level” of any series of the Securities will be specified in “Principal Terms” above. If any series of the Securities undergoes a split or reverse split, the Floor Level of that series will be adjusted accordingly. If the minimum indicative value threshold of any series of Securities has been breached, you will receive on the Acceleration Settlement Date only the Acceleration Amount in respect of your investment in that series of Securities.

You may lose all or a substantial portion of your investment upon an acceleration upon minimum indicative value. Because the Accrued Fees and Loss Rebalancing Fees, if applicable, reduce your final payment, the quarterly compounded leveraged return of the Index will need to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, in order for you to receive an aggregate amount over the term of the Securities equal to at least the initial investment of your Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset the negative effect of the Accrued Fees and the Loss Rebalancing Fees, if applicable, or if the quarterly compounded leveraged return of the Index is negative, you will lose all or a substantial portion of your investment upon an acceleration upon minimum indicative value.

The Accrued Fees will be calculated as of any date of determination for any series of Securities as the sum of (i) the Accrued Tracking Fee as of the last Trading Day of the Acceleration Measurement Period and (ii) the Accrued Financing Charge as of the last Trading Day of the Acceleration Measurement Period.

The “Accrued Tracking Fee” as of the last Trading Day of the Acceleration Measurement Period will be an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date (or, if the Acceleration Date falls in the Initial Calendar Quarter, the Initial Trade Date) to, and including, such last Trading Day in such Measurement Period, as applicable, *times* (ii) the Annual Tracking Rate, *divided* by (b) 365.

The “Accrued Financing Charge” as of the last Trading Day of the Acceleration Measurement Period is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date (or if the Acceleration Date occurs prior to the initial Quarterly Valuation Date, the period from, and excluding, the Initial Trade Date) to, and including, such last Trading Day of such Measurement Period as applicable, and the denominator of which is 360, and (c) the Financing Rate.

The “Acceleration Settlement Date” will be the third Trading Day following the last Trading Day of the Acceleration Measurement Period.

Subject to the prior verification by the Calculation Agent that the indicative value of equal or less than the Floor Level was accurately calculated by the relevant calculation agent specified in “Principal Terms” above and in each case with respect to a series of Securities, UBS must provide notice to the holders of that series of the Securities that the minimum indicative value threshold has been breached not less than five calendar days prior to the Acceleration Settlement Date. For a detailed description of how the intraday indicative value of the Securities is calculated see “Valuation of the Index and the Securities”.

Loss Rebalancing Event Upon Large Decreases in the Indicative Value

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0 based on the Index Performance Ratio as of the LR Valuation Date. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event. In addition, each time a Loss Rebalancing Event occurs, you will incur a Loss Rebalancing Fee, as defined below.

A “Loss Rebalancing Event” means if, at any time, the closing indicative value for any series of the Securities on any Trading Day decreases 40% in value from the closing indicative value of that series of the Securities on the previous Quarterly Valuation Date. A Loss Rebalancing Event may occur irrespective of whether a Market Disruption Event also occurs on that Trading Day.

With respect to a Loss Rebalancing Event, the “LR Valuation Date” is the first Trading Day following a Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event”.

With respect to a LR Valuation Date, the “LR Reset Date” is the first Trading Day following a LR Valuation Date, subject to adjustment as described under “— Market Disruption Event”.

On the LR Reset Date, the Current Principal Amount for each Security of that series will be reset as follows:

$$\text{New Current Principal Amount} = 99.995\% \square \text{LR Current Principal Amount.}$$

$$\text{LR Current Principal Amount} = \text{previous Current Principal Amount} \times \text{Index Factor on the applicable LR Valuation Date} \text{ — Accrued Fees on the applicable LR Valuation Date.}$$

If the amount calculated above is less than zero, the payment at maturity will be zero.

On the LR Reset Date, the LR Current Principal Amount will be reset exactly like the “New Current Principal Amount” on a Quarterly Reset Date, except that:

- (1) the LR Reset Date will be the Quarterly Reset Date;
- (2) the Index Factor and Index Performance Ratio will be calculated on the LR Valuation Date;
- (3) the Index Valuation Level for purposes of calculating the Index Performance Ratio will be computed using the Index Closing Level on the LR Valuation Date;
- (4) for the next reset date, the Quarterly Initial Closing Level on the applicable reset date will equal the Index Closing Level on the LR Valuation Date;
- (5) Accrued Fees (the Accrued Tracking Fees and Accrued Financing Charge) will be computed as of the LR Valuation Date as if the LR Valuation Date was a Quarterly Valuation Date; and
- (6) the Financing Level will be reduced to equal the new Current Principal Amount.

The Financing Rate will remain constant until the next Quarterly Reset Date, *provided however* that if the reset date financing rate (determined in accordance with the definition of “Financing Rate” two London business days preceding LR Valuation Date and referred to as “L2”) is less than the actual Financing Rate (“L1”), the Current Principal Amount will be further reduced by an amount equal to:

$$(\text{L1-L2}) \times (\text{Current Principal Amount} \text{—} \text{New Current Principal Amount}) \square (\text{the days remaining in the quarter from and excluding the LR Valuation Date to and including the next Quarterly Valuation Date}) \text{ divided by } 360.$$

Note that each time a Loss Rebalancing Event occurs, you will incur a 0.05% reduction in the LR Current Principal Amount of your Securities and you also may have a further reduction due to the breakage computation in the preceding proviso. We will refer to these reductions as a “Loss Rebalancing Fee”.

Loss Rebalancing Events can occur multiple times. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Each Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0 based on the Index Performance Ratio as of the LR Valuation Date. This means that your Securities will entitle you to less of a positive gain in value relative to before the occurrence of the Loss Rebalancing Event. In addition, each time a Loss Rebalancing Event occurs, you will incur a Loss Rebalancing Fee. This fee will

reduce the amount of your return (or increase your loss) on the Maturity Date, early redemption, acceleration or exercise by UBS of its call right.

Calculation Agent

UBS Securities LLC will act as the Calculation Agent. The Calculation Agent will determine, among other things, the Index Valuation Level, the Index Performance Ratio, the Index Factor, the Current Principal Amount, the Current Indicative Value, the Accrued Fees, the Accrued Financing Charge, the Financing Level, the Financing Rate, the Accrued Tracking Fee, the Redemption Fee, if any, the Loss Rebalancing Fee, if any, the payment at maturity, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, if any, that we will pay you on the Call Settlement Date, if applicable, or the Acceleration Amount, if any, that we will pay you on the Acceleration Settlement Date, if applicable, based on the relevant Index levels calculated by the Calculation Agent, as adjusted, and whether any day is a Business Day or Trading Day. The Calculation Agent will also be responsible for determining whether a Market Disruption Event has occurred, whether the relevant Index has been discontinued or is otherwise unavailable and whether there has been a material change in the relevant Index. All determinations made by the Calculation Agent will be at the sole discretion of the Calculation Agent for any series of the Securities and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different Calculation Agent for any series of the Securities from time to time without your consent and without notifying you.

The Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity, early redemption, acceleration, or upon exercise by UBS of its call right on or prior to 12:00 p.m., New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, the Acceleration Settlement Date or the Call Settlement Date, as applicable.

All dollar amounts related to determination amounts payable per Security for any series of Securities will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid on the aggregate principal amount of such Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the relevant Index has occurred or is continuing on an Averaging Date (as defined below), the Index Closing Level for such Averaging Date will be determined by the Calculation Agent or one of its affiliates on the first succeeding Trading Day on which a Market Disruption Event does not occur or is not continuing (the “Deferred Averaging Date”) with respect to the relevant Index irrespective of whether, pursuant to such determination, the Deferred Averaging Date would fall on a date originally scheduled to be an Averaging Date. If the postponement described in the preceding sentence results in the Index Closing Level being calculated on a day originally scheduled to be an Averaging Date, for purposes of determining the Index Closing Level on any Averaging Date, the Calculation Agent or one of its affiliates, as the case may be, will apply the Index Closing Level for such Deferred Averaging Date (i) on the date(s) of the original Market Disruption Event and (ii) such Averaging Date. For example, if the applicable Measurement Period for purposes of calculating the Call Settlement Amount is based on the arithmetic mean of the Index Closing Levels on October 3, October 4, October 5, October 6 and October 7, and there is a Market Disruption Event with respect to the relevant Index on October 3, but no other Market Disruption Event during such Measurement Period, then the Index Closing Level on October 4 will be used twice to calculate the Call Settlement Amount, and the Call Settlement Amount will be determined based on the arithmetic mean of the Index Closing Levels on October 4, October 4, October 5, October 6 and October 7. The same approach would be applied if there is a Market Disruption Event during any Measurement Period.

If the Redemption Valuation Date, for purposes of calculating a Redemption Amount for a Regular Redemption, is based on the Index Closing Level on October 3 and there is a Market Disruption Event with respect to the Index on October 3, then the Index Closing Level on October 4 will be used to calculate the Redemption Amount. If a Market Disruption Event occurs on any Quarterly Valuation Date or LR Valuation Date, the Index Closing Level for such date will be determined by the Calculation Agent or one of its affiliates on the first succeeding Trading Day on which a Market Disruption Event does not occur or is not continuing.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the final Averaging Date, Quarterly Valuation Date, the Redemption Valuation Date, or LR Valuation Date, as applicable, occurring more than eight Trading Days following the day originally scheduled to be such final Averaging Date or other applicable date. If the eighth Trading Day following the date originally scheduled to be the final Averaging Date, Quarterly Valuation Date, Redemption Valuation Date, or LR Valuation Date, as applicable, a Market Disruption Event has occurred or is continuing with respect to the relevant Index on such eighth Trading Day, the Calculation Agent or one of its affiliates will determine the Index Closing Level based on its estimate of the Index Closing Level that would have prevailed on such eighth Trading Day but for such Market Disruption Event. If any Quarterly Valuation Date or LR Valuation Date is postponed as described above, the succeeding Quarterly Reset Date or LR Reset Date will occur on the next Trading Day following the postponed Quarterly Valuation Date or LR Valuation Date, as applicable.

An “Averaging Date” means each of the Trading Day(s) during any Measurement Period, subject to adjustment as described herein.

Notwithstanding the occurrence of one or more of the events below, which may, in the Calculation Agent’s discretion, constitute a Market Disruption Event with respect to the relevant Index, the Calculation Agent in its discretion may waive its right to postpone the Index Closing Level if it determines that one or more of the below events has not and is not likely to materially impair its ability to determine the Index Closing Level on such date.

Any of the following will be a Market Disruption Event with respect to the relevant Index, in each case as determined by the Calculation Agent:

- (a) suspension, absence or material limitation of trading in a material number of the Index Constituent Securities for more than two hours or during the one-half hour before the close of trading in the applicable market or markets;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the relevant Index or to a material number of Index Constituent equity interests in the primary market or markets for those contracts for more than two hours of trading or during the one-half hour before the close of trading in that market;
- (c) the relevant Index is not published; or
- (d) in any other event, including any time when a relevant market is closed for trading under ordinary circumstances, if the Calculation Agent determines that the event interferes with our ability or the ability of any of our affiliates to unwind all or a portion of a hedge with respect to the Securities (or relevant portion of the Securities) that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging”.

The following event will not be Market Disruption Event with respect to the relevant Index:

- (a) a decision to permanently discontinue trading in the options or futures contracts relating to the relevant Index or any Index Constituent equity interests.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the relevant Index or any Index Constituent equity interests are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Discontinuance of or Adjustments to the Relevant Index; Alteration of Method of Calculation

If the Index Sponsor or another entity that publishes the Index discontinues publication of the relevant Index, or if our right to use the Index is suspended or terminated, and the Index Sponsor or such other entity publishes a successor or substitute index that the Calculation Agent determines to be comparable to the discontinued relevant Index (such index being referred to herein as a “Successor Index”), then the Index Closing Level for such Successor Index will be determined by the Calculation Agent by reference to the Successor Index on the dates and at the times as of which the Index Closing Levels for such Successor Index are to be determined.

Upon any selection by the Calculation Agent of a Successor Index, the Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor discontinues publication of the relevant Index, or if our right to use the Index is suspended or terminated, prior to, and such discontinuation or unavailability is continuing on, any Quarterly Valuation Date, any Averaging Date, any Redemption Valuation Date or any other relevant date on which the Index Closing Level is to be determined and the Calculation Agent determines that no Successor Index is available at such time, or the Calculation Agent has previously selected a Successor Index and publication of such Successor Index is discontinued prior to, and such discontinuation is continuing on any relevant date on which the Index Closing Level is to be determined, then the Calculation Agent will determine the Index Closing Level using the closing level and published share weighting of each Index Constituent Security included in the relevant Index or Successor Index, as applicable, immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the relevant Index or Successor Index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the relevant Index or a Successor Index, or the value thereof, is changed in a material respect, or if the relevant Index or a Successor Index is in any other way modified so that the level of the relevant Index or such Successor Index does not, in the opinion of the Calculation Agent, fairly represent the level of the relevant Index or such Successor Index had such changes or modifications not been made, then the Calculation Agent will make such calculations and adjustments as, in the judgment of the Calculation Agent, may be necessary in order to arrive at a level of an index comparable to the relevant Index or such Successor Index, as the case may be, as if such changes or modifications had not been made, and the Calculation Agent will calculate the levels for the relevant Index or such Successor Index with reference to the relevant Index or such Successor Index, as adjusted. The Calculation Agent will accordingly calculate the relevant Index levels, Accrued Fees and the Redemption Fee and/or the Loss Rebalancing Fees, if applicable, based on the Index levels calculated by the Calculation Agent, as adjusted. Accordingly, if the method of calculating the relevant Index or a Successor Index is modified so that the level of the relevant Index or such Successor Index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the relevant Index), which, in turn, causes the level of the relevant Index or such Successor Index to be a fraction of what it would have been if there had been no such modification, then the Calculation Agent will make such calculations and adjustments in order to arrive at a level for the relevant Index or such Successor Index as if it had not been modified (*e.g.*, as if such split had not occurred).

Redemption Price Upon Optional Tax Redemption

We have the right to redeem any series of the Securities in the circumstances described in “Medium Term Notes, Series B” under “Description of Debt Securities We May Offer — Optional Tax Redemption”. If we exercise this right, the redemption price of that series of the Securities will be determined by the Calculation Agent in a manner reasonably calculated to preserve your and our relative economic position.

Default Amount on Acceleration

If an event of default occurs and the maturity of any series of the Securities is accelerated, we will pay the default amount in respect of the principal of the that series of Securities at maturity. We describe the default amount below under “— Default Amount”.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B are entitled to take any action under the indenture, we will treat the outstanding principal amount of each series of Securities as the outstanding principal amount of the Medium-Term Notes, Series B constituted by that series of Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium Term Notes, Series B” under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants”.

Default Amount

The default amount for any series of the Securities on any day will be an amount, in U.S. dollars for the principal of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities of the accelerated series. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, plus
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities of the accelerated series, which we describe below, the holders of that series of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s Financial Services LLC, a division of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity, early redemption, acceleration or upon exercise by UBS of its call right will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the accompanying prospectus.

Defeasance

Neither full defeasance nor covenant defeasance, as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Defeasance and Covenant Defeasance”, will apply to the Securities.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue any series of the Securities. We intend to issue the Securities initially in an amount having the aggregate offering price specified in “Principal Terms” above. However, we may issue additional Securities in amounts that exceed the amount specified in “Principal Terms” above at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other Securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in the accompanying prospectus.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities of any series and will have the same CUSIP number and will trade interchangeably with that series of the Securities immediately upon settlement. Any additional issuances will increase the aggregate Principal Amount of the outstanding Securities of the class, plus the aggregate Principal Amount of any Securities bearing the same CUSIP number that are issued pursuant to any future issuances of Securities bearing the same CUSIP number. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

Additional Terms of the Securities

The general terms of the Securities described above are modified by the specific definitions and terms below.

“Intraday Indicative Value” means the approximate intrinsic economic value of the Securities calculated by NYSE Arca, Inc. and published on Bloomberg (based in part on information provided by the Index Sponsor) or a successor via the facilities on the Consolidated Tape Association under the symbol “FIEEIV”.

“Trading Day” means any day on which (i) trading is generally conducted on NYSE Arca and (ii) the level of the Index is published by the Index Sponsor, in each case as determined by the Calculation Agent.

“Primary Exchange” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading for such Index Constituent Security or such constituent underlying a successor index.

3. UBS AG FI Enhanced Global High Yield ETN due March 3, 2026

Principal Terms

Principal Amount: \$1,250,000,000

Issuer: UBS AG, London Branch

Initial Trade Date: February 19, 2016

Initial Settlement Date: February 24, 2016

Term: 10 years, subject to your right to receive payment for your Securities upon redemption, acceleration upon minimum indicative value or exercise by UBS of its call right, each as described below.

Denomination/Principal Amount: \$100.00 per Security

Maturity Date: March 3, 2026, subject to adjustment

Index: The return on the Securities is linked to the MSCI World High Dividend Yield USD Gross Total Return Index. The level of the Index reflects both the price performance of the Index Constituent Securities and the reinvestment of dividends on the Index Constituent Securities. The level of the Index is published approximately every 15 seconds from 12:00 a.m. to 4:15 p.m., New York City time, and a daily Index Closing Level is published at approximately 6:00 p.m., New York City time, on each Trading Day.

Index Closing Level: The closing level of the Index as published by the Index Sponsor and reported by Bloomberg under the ticker symbol “MHDYWOUG<Index>”.

Annual Tracking Rate: 0.80% per annum

Financing Spread: .85% per annum

Loss Rebalancing Fee: Upon each occurrence of a Loss Rebalancing Event, you will incur a 0.05% reduction in the LR Current Principal Amount of your Securities, calculated as $99.95\% \times \text{LR Current Principal Amount}$, and may also have a further reduction due to a breakage computation. See “— Loss Rebalancing Event Upon Large Decreases in the Indicative Value” for the definition of the Loss Rebalancing Fee and other terms pertaining to the Loss Rebalancing Event.

Redemption Procedures: The redemption procedures for Early Redemption are specified under “— Redemption Procedures”, provided that any reference to 12:00 noon (New York City time) as the cutoff time (1) to deliver notice of redemption and (2) for aggregating redemption requests to determine whether an early redemption is a Regular Redemption or a Large Redemption shall be 9:00 a.m. (New York City time).

First Redemption Date: March 2, 2016 for Regular Redemptions, March 8, 2016 for Large Redemptions

Final Redemption Date: February 24, 2026

First Call Date: The first date that UBS may exercise its Call Right is February 24, 2017

Quarterly Initial Closing Level for the Initial Calendar Quarter: 1,494.907, the Index Closing Level (as defined BELOW) on the Initial Trade Date.

Quarterly Reset Dates: For each calendar quarter, the Quarterly Reset Date is the first Trading Day of that quarter beginning on April 1, 2016 and ending on January 2, 2026, subject to adjustment.

Quarterly Valuation Dates: For each Quarterly Reset Date, the Quarterly Valuation Date is the last Trading Day of the previous calendar quarter, beginning on March 31, 2016 and ending on December 31, 2025, subject to adjustment.

Floor Level: The “Floor Level” is equal to \$20.00 subject to adjustment.

Index Sponsor: MSCI, Inc.

Listing: The Securities have been approved for listing, subject to official notice of issuance, on NYSE Arca under the symbol “FIHD.”

Calculation Date: February 20, 2026, unless that day is not a Trading Day, in which case the Calculation Date will be the next Trading Day, subject to adjustment.

Index Symbols: The intraday level of the Index is reported by Bloomberg under the ticker symbol “M2WDHDVD <Index>”.

The Index Closing Level is reported by Bloomberg under the ticker symbol “MHDYWOUUG <Index>”.

Intraday Indicative Value Symbol: FIHDIV (Bloomberg)

CUSIP No.: 90274D218

ISIN No.: US90274D218

General Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through DTC or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

Interest or Coupons

We will not pay you any interest or coupons during the term of the Securities.

Payment at Maturity

The “Maturity Date” for each series of Securities will be the third Trading Day after the last Trading Day in the applicable Measurement Period, which we refer to in this section “— Payment at Maturity” as the “Final Measurement Period”. The scheduled Maturity Date is identified in “Principal Terms” above.

For each Security, unless earlier called, redeemed or accelerated, you will receive at maturity a cash payment equal to:

- (a) the product of (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day in the Final Measurement Period, minus
- (b) the Accrued Fees as of such last Trading Day.

If the amount calculated above is less than zero, the payment at maturity will be zero.

You may lose all or a substantial portion of your investment at maturity. Because the Accrued Fees reduce your final payment, the quarterly compounded leveraged return of the Index will need to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, in order for you to receive an aggregate amount over the term of the Securities of any series equal to at least the initial investment of your Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset the negative effect of the Accrued Fees and the Loss Rebalancing Fees, if applicable, or if the quarterly compounded leveraged return of the Index is negative, you will lose all or a substantial portion of your investment.

The Accrued Fees will be calculated as of the last Trading Day in the Final Measurement Period as the sum of (i) the Accrued Tracking Fee as of such last Trading Day and (ii) the Accrued Financing Charge as of such last Trading Day.

The “Financing Level” is, as of any date of determination, an amount that equals the Current Principal Amount.

The “Accrued Financing Charge” as of the last Trading Day of the Final Measurement Period is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date to, and including, such last Trading Day of such Final Measurement Period and the denominator of which is 360, and (c) the Financing Rate.

On the Initial Trade Date, the Accrued Financing Charge for each Security will be \$0.

The “Accrued Tracking Fee” as of the last Trading Day in the Final Measurement Period is an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date to, and including, such last Trading Day in such Final Measurement Period *times* (ii) the Annual Tracking Rate, *divided* by (b) 365.

The “Annual Tracking Rate” is a per annum rate described in “Principal Terms” above.

The “Current Indicative Value” is, as determined by the Calculation Agent as of any date of determination, an amount per Security of any series equal to the product of (i) the Current Principal Amount and (ii) the Index Factor as of such date, calculated using the Index Closing Level on such date as the Index Valuation Level.

The “Principal Amount” of each Security is \$100.00. Each series of the Securities may be issued and sold over time at then- current market prices, which may be significantly higher or lower than the Principal Amount.

For the Initial Calendar Quarter, the Current Principal Amount will equal \$100.00 per Security of the applicable series. For each subsequent calendar quarter, the Current Principal Amount for each Security of that series will be reset as follows on the Quarterly Reset Date:

$$\text{New Current Principal Amount} = \text{previous Current Principal Amount} \times \text{Index Factor on the applicable Quarterly Valuation Date} - \text{Accrued Fees on the applicable Quarterly Valuation Date}$$

If any series of the Securities undergoes a split or reverse split, the Current Principal Amount of that series will be adjusted accordingly.

For each calendar quarter, the “Quarterly Reset Date” is the first Trading Day of the quarter specified in “Principal Terms” above, subject to adjustment as described under “— Market Disruption Event”; provided, however, that no Quarterly Reset Date will occur on or after the Call Valuation Date or the Acceleration Date.

For each Quarterly Reset Date, the “Quarterly Valuation Date” is the last Trading Day of the previous calendar quarter subject to adjustment as described under “— Market Disruption Event”. The Quarterly Valuation Date specified in “Principal Terms” above.

The Index Factor will be calculated as follows:

$$1 + (2 \times \text{Index Performance Ratio})$$

The Index Performance Ratio on any Quarterly Valuation Date, any Redemption Valuation Date, or as of the last Trading Day in the applicable Measurement Period, as applicable, will be:

$$\frac{\text{Index Valuation Level} - \text{Quarterly Initial Closing Level}}{\text{Quarterly Initial Closing Level}}$$

The “Index Valuation Level” will equal the arithmetic mean of the Index Closing Levels measured on each Trading Day during the applicable Measurement Period, or the Index Closing Level on any Quarterly Valuation Date or any Redemption Valuation Date, as determined by the Calculation Agent, provided that:

- (1) for Regular Redemptions, if the Redemption Valuation Date falls in a Final Measurement Period, Call Measurement Period, or Acceleration Measurement Period, for the purposes of calculating the Index Performance Ratio as of the Redemption Valuation Date, the Index Valuation Level on the Redemption Valuation Date during such Measurement Period shall equal (a) (i) for each elapsed Trading Day in the Measurement Period from and including the first Trading Day in such Measurement Period to but excluding the Redemption Valuation Date (the “Applicable Date”), the sum of the Index Closing Levels on such Trading Day(s) plus (ii) the Index Closing Level on the Applicable Date times the number of remaining Trading Days in the Measurement Period from and including the Applicable Date *divided* by (b) the number of Trading Days in the Measurement Period; and
- (2) For a Large Redemption, if the Redemption Valuation Date occurs during an Acceleration Measurement Period, Call Measurement Period, or Final Measurement Period, the Redemption Amount shall equal the Acceleration Amount, Call Settlement Amount or payment at maturity, as applicable.

Unless specified otherwise in “Principal Terms” above, the applicable “Measurement Period” means the five Trading Days from and including the Call Valuation Date, Redemption Valuation Date (for a Large Redemption), Calculation Date or the first Trading Day following the Acceleration Date, as applicable, subject to adjustment as described under “— Market Disruption Event”.

The “Quarterly Initial Closing Level” for the Initial Calendar Quarter is specified in “Principal Terms” above and will be the Index Closing Level on the applicable Initial Trade Date. For each subsequent calendar quarter, the Quarterly Initial Closing Level on the Quarterly Reset Date will equal the Index Closing Level on the Quarterly Valuation Date for the previous calendar quarter.

The “Index Closing Level” is, for any series of the Securities, the closing level of the relevant Index as published by the Index Sponsor.

The “Index Sponsor” is the entity that calculates the level of the relevant Index and is specified in “Principal Terms” above.

The “Calculation Date” is specified in “Principal Terms” above.

Unless specified otherwise in “Principal Terms” above, “Trading Day” means any day on which (i) trading is generally conducted on NYSE Arca and (ii) trading is generally conducted on the markets on which the Index Constituent Securities in the relevant Index are traded, in each case as determined by the Calculation Agent.

Early Redemption at the Option of the Holders

You may elect to require UBS to redeem your Securities, subject to a minimum redemption amount of at least 12,500 Securities of the same series. If you elect to have your Securities redeemed and have done so under the redemption procedures described below under “— Redemption Procedures”, you will receive payment for your Securities on the Redemption Date. The first and final Redemption Dates are specified in “Principal Terms” above. For any early redemptions, the applicable “Redemption Valuation Date” means the first Trading Day following the date on which you deliver a redemption notice to UBS in compliance with the redemption procedures. For any Large Redemption (as defined below), the Redemption Valuation Date will be the first Trading Day in the applicable Large Redemption Measurement Period. If a Redemption Valuation Date for a Large Redemption occurs during an Acceleration Measurement Period, Call Measurement Period or Final Measurement Period, the Redemption Amount shall equal the Acceleration Amount, Call Settlement Amount or payment at maturity, as applicable.

To satisfy the minimum redemption amount of 12,500 Securities, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 12,500 Securities of the same series; however, there can be no assurance that they can or will do so. We may from time to time in our sole discretion reduce, in part or in whole, the minimum redemption amount of 12,500 Securities of any series. Any such reduction will be applied on a consistent basis for all holders of the Securities of the affected series at the time the reduction becomes effective.

The Securities will be redeemed and the holders will receive payment for their Securities on the third Business Day following the corresponding Redemption Valuation Date (or the last Trading Day in the applicable Large Redemption Measurement Period for a Large Redemption), or if such third day is not a Business Day, the next following Business Day (the “Redemption Date”). In addition, if a call notice has been issued, if acceleration has been triggered, or the Final Measurement Period has commenced, in each case with respect to any series of the Securities, for Regular Redemptions the last permitted Redemption Valuation Date for that series of Securities will be the fourth Trading Day in the applicable Call Measurement Period, Acceleration Measurement Period, or the Final Measurement Period, as applicable. For a Large Redemption, if the Redemption Valuation Date occurs during an Acceleration Measurement Period, Call Measurement Period, or Final Measurement Period, the Redemption Amount shall equal the Acceleration Amount, Call Settlement Amount or payment at maturity, as applicable and the Redemption Date will be the third Business Day following the last Trading Day in the applicable Measurement Period. Any applicable Redemption Valuation Date is subject to adjustment as described under “— Market Disruption Event”.

A “Regular Redemption” means an early redemption of Securities of a given series in an amount greater than or equal to the minimum redemption amount of 12,500 Securities but less than the large redemption amount of 2,000,000 Securities.

A “Large Redemption” means an early redemption of Securities of a given series in an amount equal to or greater than 2,000,000 Securities. For purposes of determining whether an early redemption is a Regular Redemption or a Large Redemption, UBS will aggregate all redemption requests received prior to 12:00 noon (New York City time) on a given Trading Day.

General Terms of the Securities

Regular Redemptions

If you exercise your right to have us redeem your Securities and such redemption qualifies as a Regular Redemption, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to

- (a) the product of

- (i) the Current Principal Amount and (ii) the Index Factor as of the applicable Redemption Valuation Date, minus
- (b) the Accrued Fees as of such Redemption Valuation Date, minus
- (c) the Redemption Fee.

Large Redemptions

If you exercise your right to have us redeem your Securities and such redemption qualifies as a Large Redemption, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day in the applicable Measurement Period, which we refer to in this section “— Early Redemption at the Option of the Holders” as the “Large Redemption Measurement Period”, minus
- (b) the Accrued Fees as of such last Trading Day, minus
- (c) the Redemption Fee.

We refer to the cash payments described above as the “Redemption Amount”.

If the amount calculated above is less than zero, the payment upon early redemption will be zero. We will inform you of such Redemption Amount two Business Days preceding the applicable Redemption Date.

You may lose all or a substantial portion of your investment upon early redemption. Because the Accrued Fees and the Redemption Fee reduce your final payment, the quarterly compounded leveraged return of the Index will need to be sufficient to offset the negative effect of the Accrued Fees, the Redemption Fee and/or Loss Redemption Fees, if applicable, in order for you to receive an aggregate amount over the term of the Securities equal to your initial investment in the Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset such a negative effect or if the quarterly compounded leveraged return of the Index is negative, you will lose all or a substantial portion of your investment upon early redemption.

The Accrued Fees will be calculated as of any Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period) as the sum of (i) the Accrued Tracking Fee as of such date and (ii) the Accrued Financing Charge as of such date.

The “Accrued Tracking Fee” as of any Redemption Valuation Date is an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date (or, if the Redemption Valuation Date falls in the Initial Calendar Quarter, the Initial Trade Date) to, and including such Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period) *times* (ii) the Annual Tracking Rate, *divided* by (b) 365.

The “Accrued Financing Charge” as of any Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period) is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date (or if the Redemption Valuation Date or last Trading Day of the applicable Large Measurement Period occurs prior to the initial Quarterly Valuation Date, the period from, and excluding, the Initial Trade Date) to, and including, such Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period), and the denominator of which is 360, and (c) the Financing Rate.

The “Redemption Fee” means, as of any date of determination for a series of Securities, an amount per Security equal to the product of (a) 0.125%, (b) the Current Principal Amount and (c) the Index Factor as of the applicable Redemption Valuation Date (or for a Large Redemption, the last Trading Day in the Large Measurement Period).

We discuss these matters “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Redemption and Repayment”.

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner. Any series of Securities may trade at, above, or below its indicative value.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption to UBS via email no later than 12:00 noon (New York City time) on the Trading Day immediately preceding the applicable Redemption Valuation Date. If we receive your notice by the time specified in the preceding sentence, we will respond by sending you a confirmation of redemption;
- deliver the signed confirmation of redemption to us via facsimile in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date (or the applicable last Trading Day in the Large Redemption Measurement Period for Large Redemptions) at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m. (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 12:00 noon (New York City time), or your confirmation of redemption after 5:00 p.m. (New York City time), on the Trading Day prior to the applicable Redemption Valuation Date, your notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

UBS's Call Right

We have the right to redeem all, but not less than all, of the Securities of any series upon not less than sixteen calendar days' prior notice to the holders of the Securities of that series, such redemption to occur on any Trading Day specified in "Principal Terms" above through and including the Calculation Date in "Principal Terms" above. Upon early redemption in the event we exercise this right, you will receive a cash payment equal to

- (a) the product of (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day in the applicable Measurement Period, which we refer to in this section "— UBS's Call Right" as the "Call Measurement Period", minus
- (b) the Accrued Fees as of such last Trading Day.

We refer to this cash payment as the "Call Settlement Amount".

If the amount calculated above is less than zero, the payment upon UBS's exercise of its call right will be zero.

If UBS issues a call notice on any Trading Day, the "Call Valuation Date" will be the fifth Trading Day following the Trading Day on which the call notice is issued.

We will inform you of such Call Settlement Amount on the first Business Day following the last Trading Day in the Call Measurement Period.

The holders will receive payment for their Securities on a date that is at least three, but not greater than six, Trading Days following the last Trading Day in the Call Measurement Period (the "Call Settlement Date"). We will inform you of such Call Settlement Date in the call notice. If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under "— Market Disruption Event".

You may lose all or a substantial portion of your investment at call. Because the Accrued Fees and Loss Rebalancing Fees, if applicable, reduce your final payment, the quarterly compounded leveraged return of the Index will need to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, in order for you to receive an aggregate amount over the term of the Securities equal to at least initial investment of your Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, or if the quarterly compounded leveraged return of the Index is negative, you will lose all or a substantial portion of your investment at call.

The Accrued Fees will be calculated as of the last Trading Day in the Call Measurement Period as the sum of (i) the Accrued Tracking Fee as of such last Trading Day and (ii) the Accrued Financing Charge as of such last Trading Day.

The “Accrued Tracking Fee” as of the last Trading Day in the Call Measurement Period is an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date to, and including, such last Trading Day in such Call Measurement Period *times* (ii) the Annual Tracking Rate, *divided* by (b) 365.

The “Accrued Financing Charge” as of the last Trading Day of the Call Measurement Period is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date to, and including, such last Trading Day of such Call Measurement Period and the denominator of which is 360, and (c) the Financing Rate.

Acceleration Upon Minimum Indicative Value

If, at any time, the indicative value for any series of the Securities on any Trading Day equals the Floor Level or less (such day, an “Acceleration Date”), all issued and outstanding Securities of that series will be automatically accelerated and mandatorily redeemed by UBS (even if the indicative value of that series would later exceed the Floor Level on such Acceleration Date or any subsequent Trading Day during the applicable Measurement Period, which we refer to in this section “— Acceleration Upon Minimum Indicative Value” as the “Acceleration Measurement Period”) for a cash payment equal to

- (a) the product of (i) the Current Principal Amount and (ii) the Index Factor as of the last Trading Day of the Acceleration Measurement Period, minus
- (b) the Accrued Fees as of such last Trading Day.

We refer to this cash payment as the “Acceleration Amount”. The “Floor Level” of any series of the Securities is specified in “Principal Terms” above and is subject to adjustment in the case of a split or reverse split as described under “Valuation of the Index and the Securities — Split or Reverse Split of the Securities”. If the minimum indicative value threshold of any series of Securities has been breached, you will receive on the Acceleration Settlement Date only the Acceleration Amount in respect of your investment in that series of Securities. An Acceleration Date can occur irrespective of whether a Market Disruption Event also occurs on that Trading Day.

You may lose all or a substantial portion of your investment upon an acceleration upon minimum indicative value. Because the Accrued Fees and Loss Rebalancing Fees, if applicable, reduce your final payment, the quarterly compounded leveraged return of the Index will need to offset the negative effect of the Accrued Fees and Loss Rebalancing Fees, if applicable, in order for you to receive an aggregate amount over the term of the Securities equal to at least the initial investment of your Securities. If the quarterly compounded leveraged return of the Index is insufficient to offset the negative effect of the Accrued Fees and the Loss Rebalancing Fees, if applicable, or if the quarterly compounded leveraged return of the Index is negative, you will lose all or a substantial portion of your investment upon an acceleration upon minimum indicative value.

The Accrued Fees will be calculated as of any date of determination for any series of Securities as the sum of (i) the Accrued Tracking Fee as of the last Trading Day of the Acceleration Measurement Period and (ii) the Accrued Financing Charge as of the last Trading Day of the Acceleration Measurement Period.

The “Accrued Tracking Fee” as of the last Trading Day of the Acceleration Measurement Period will be an amount equal to (a) the aggregate sum of (i) the Current Indicative Value as of the immediately preceding Trading Day for each date starting from, but excluding, the immediately preceding Quarterly Valuation Date (or, if the Acceleration Date falls in the Initial Calendar Quarter, the Initial Trade Date) to, and including, such last Trading Day in such Measurement Period, as applicable, *times* (ii) the Annual Tracking Rate, *divided* by (b) 365.

The “Accrued Financing Charge” as of the last Trading Day of the Acceleration Measurement Period is an amount equal to the product of (a) the Financing Level as of the preceding Quarterly Reset Date, (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Quarterly Valuation Date (or if the Acceleration Date occurs prior to the initial Quarterly Valuation Date, the period from, and excluding, the Initial Trade Date) to, and including, such last Trading Day of such Measurement Period as applicable, and the denominator of which is 360, and (c) the Financing Rate.

The “Acceleration Settlement Date” will be the third Trading Day following the last Trading Day of the Acceleration Measurement Period.

Subject to the prior verification by the Calculation Agent that the indicative value of equal or less than the Floor Level was accurately calculated by the relevant calculation agent specified in “Principal Terms” above and in each case with respect to a series of Securities, UBS must provide notice to the holders of that series of the Securities that the minimum indicative value threshold has been breached not less than five calendar days prior to the Acceleration Settlement Date. For a detailed description of how the intraday indicative value of the Securities is calculated see “Valuation of the Index and the Securities”.

Loss Rebalancing Event Upon Large Decreases in the Indicative Value

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0 based on the Index Performance Ratio as of the LR Valuation Date. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event. In addition, each time a Loss Rebalancing Event occurs, you will incur a Loss Rebalancing Fee, as defined below.

A “Loss Rebalancing Event” means if, at any time, the closing indicative value for any series of the Securities on any Trading Day decreases 40% in value from the closing indicative value of that series of the Securities on the previous Quarterly Valuation Date. A Loss Rebalancing Event may occur irrespective of whether a Market Disruption Event also occurs on that Trading Day.

With respect to a Loss Rebalancing Event, the “LR Valuation Date” is the first Trading Day following a Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event”.

With respect to a LR Valuation Date, the “LR Reset Date” is the first Trading Day following a LR Valuation Date, subject to adjustment as described under “— Market Disruption Event”.

On the LR Reset Date, the Current Principal Amount for each Security of that series will be reset as follows:

$$\text{New Current Principal Amount} = 99.995\% \square \text{LR Current Principal Amount.}$$

$$\text{LR Current Principal Amount} = \text{previous Current Principal Amount} \times \text{Index Factor on the applicable LR Valuation Date} - \text{Accrued Fees on the applicable LR Valuation Date.}$$

If the amount calculated above is less than zero, the payment at maturity will be zero.

On the LR Reset Date, the LR Current Principal Amount will be reset exactly like the “New Current Principal Amount” on a Quarterly Reset Date, except that:

- (1) the LR Reset Date will be the Quarterly Reset Date;
- (2) the Index Factor and Index Performance Ratio will be calculated on the LR Valuation Date;
- (3) the Index Valuation Level for purposes of calculating the Index Performance Ratio will be computed using the Index Closing Level on the LR Valuation Date;
- (4) for the next reset date, the Quarterly Initial Closing Level on the applicable reset date will equal the Index Closing Level on the LR Valuation Date;
- (5) Accrued Fees (the Accrued Tracking Fees and Accrued Financing Charge) will be computed as of the LR Valuation Date as if the LR Valuation Date was a Quarterly Valuation Date; and
- (6) the Financing Level will be reduced to equal the new Current Principal Amount.

The Financing Rate will remain constant until the next Quarterly Reset Date, *provided however* that if the reset date financing rate (determined in accordance with the definition of “Financing Rate” two London business days preceding LR Valuation Date and referred to as “L2”) is less than the actual Financing Rate (“L1”), the Current Principal Amount will be further reduced by an amount equal to:

$$(L1-L2) \times (\text{Current Principal Amount} - \text{New Current Principal Amount}) \square (\text{the days remaining in the quarter from and excluding the LR Valuation Date to and including the next Quarterly Valuation Date}) \textit{ divided by } 360.$$

Note that each time a Loss Rebalancing Event occurs, you will incur a 0.05% reduction in the LR Current Principal Amount of your Securities and you also may have a further reduction due to the breakage computation in the preceding proviso. We will refer to these reductions as a “Loss Rebalancing Fee”.

Loss Rebalancing Events can occur multiple times. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Each Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0 based on the Index Performance Ratio as of the LR Valuation Date. This means that your Securities will entitle you to less of a positive gain in value relative to before the occurrence of the Loss Rebalancing Event. In addition, each time a Loss Rebalancing Event occurs, you will incur a Loss Rebalancing Fee. This fee will reduce the amount of your return (or increase your loss) on the Maturity Date, early redemption, acceleration or exercise by UBS of its call right.

Calculation Agent

UBS Securities LLC will act as the Calculation Agent. The Calculation Agent will determine, among other things, the Index Valuation Level, the Index Performance Ratio, the Index Factor, the Current Principal Amount, the Current Indicative Value, the Accrued Fees, the Accrued Financing Charge, the Financing Level, the Financing Rate, the Accrued Tracking Fee, the Redemption Fee, if any, the Loss Rebalancing Fee, if any, the payment at maturity, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, if any, that we will pay you on the Call Settlement Date, if applicable, or the Acceleration Amount, if any, that we will pay you on the Acceleration Settlement Date, if applicable, based on the relevant Index levels calculated by the Calculation Agent, as adjusted, and whether any day is a Business Day or Trading Day. The Calculation Agent will also be responsible for determining whether a Market Disruption Event has occurred, whether the relevant Index has been discontinued or is otherwise unavailable and whether there has been a material change in the relevant Index. All determinations made by the Calculation Agent will be at the sole discretion of the Calculation Agent for any series of the Securities and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different Calculation Agent for any series of the Securities from time to time without your consent and without notifying you.

The Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity, early redemption, acceleration, or upon exercise by UBS of its call right on or prior to 12:00 p.m., New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, the Acceleration Settlement Date or the Call Settlement Date, as applicable.

All dollar amounts related to determination amounts payable per Security for any series of Securities will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid on the aggregate principal amount of such Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the relevant Index has occurred or is continuing on an Averaging Date (as defined below), the Index Closing Level for such Averaging Date will be determined by the Calculation Agent or one of its affiliates on the first succeeding Trading Day on which a Market Disruption Event does not occur or is not continuing (the “Deferred Averaging Date”) with respect to the relevant Index irrespective of whether, pursuant to such determination, the Deferred Averaging Date would fall on a date originally scheduled to be an Averaging Date. If the postponement described in the preceding sentence results in the Index Closing Level being calculated on a day originally scheduled to be an Averaging Date, for purposes of determining the Index Closing Level on any Averaging Date, the Calculation Agent or one of its affiliates, as the case may be, will apply the Index Closing Level for such Deferred Averaging Date (i) on the date(s) of the original Market Disruption Event and (ii) such Averaging Date. For example, if the applicable Measurement Period for purposes of calculating the Call Settlement Amount is based on the arithmetic mean of the Index Closing Levels on October 3, October 4, October 5, October 6 and October 7, and there is a Market Disruption Event with respect to the relevant Index on October 3, but no other Market Disruption Event during such Measurement Period, then the Index Closing Level on October 4 will be used twice to calculate the Call Settlement Amount, and the Call Settlement Amount will be determined based on the arithmetic mean of the Index Closing Levels on October 4, October 4, October 5, October 6 and October 7. The same approach would be applied if there is a Market Disruption Event during any Measurement Period.

If the Redemption Valuation Date, for purposes of calculating a Redemption Amount for a Regular Redemption, is based on the Index Closing Level on October 3 and there is a Market Disruption Event with respect to the Index on October 3, then the Index Closing Level on October 4 will be used to calculate the Redemption Amount. If a Market Disruption Event occurs on any Quarterly Valuation Date or LR Valuation Date, the Index Closing Level for such date will be determined by the Calculation Agent or one of its affiliates on the first succeeding Trading Day on which a Market Disruption Event does not occur or is not continuing.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the final Averaging Date, Quarterly Valuation Date, the Redemption Valuation Date, or LR Valuation Date, as applicable, occurring more than eight Trading Days following the day originally scheduled to be such final Averaging Date or other applicable date. If the eighth Trading Day following the date originally scheduled to be the final Averaging Date, Quarterly Valuation Date, Redemption Valuation Date, or LR Valuation Date, as applicable, a Market Disruption Event has occurred or is continuing with respect to the relevant Index on such eighth Trading Day, the Calculation Agent or one of its affiliates will determine the Index Closing Level based on its estimate of the Index Closing Level that would have prevailed on such eighth Trading Day but for such Market Disruption Event. If any Quarterly Valuation Date or LR Valuation Date is postponed as described above, the succeeding Quarterly Reset Date or LR Reset Date will occur on the next Trading Day following the postponed Quarterly Valuation Date or LR Valuation Date, as applicable.

An “Averaging Date” means each of the Trading Day(s) during any Measurement Period, subject to adjustment as described herein.

Notwithstanding the occurrence of one or more of the events below, which may, in the Calculation Agent's discretion, constitute a Market Disruption Event with respect to the relevant Index, the Calculation Agent in its discretion may waive its right to postpone the Index Closing Level if it determines that one or more of the below events has not and is not likely to materially impair its ability to determine the Index Closing Level on such date.

Any of the following will be a Market Disruption Event with respect to the relevant Index, in each case as determined by the Calculation Agent:

- (a) suspension, absence or material limitation of trading in a material number of the Index Constituent Securities for more than two hours or during the one-half hour before the close of trading in the applicable market or markets;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the relevant Index or to a material number of Index Constituent equity interests in the primary market or markets for those contracts for more than two hours of trading or during the one-half hour before the close of trading in that market;
- (c) the relevant Index is not published; or
- (d) in any other event, including any time when a relevant market is closed for trading under ordinary circumstances, if the Calculation Agent determines that the event interferes with our ability or the ability of any of our affiliates to unwind all or a portion of a hedge with respect to the Securities (or relevant portion of the Securities) that we or our affiliates have effected or may effect as described in the section entitled "Use of Proceeds and Hedging".

The following event will not be Market Disruption Event with respect to the relevant Index:

- (a) a decision to permanently discontinue trading in the options or futures contracts relating to the relevant Index or any Index Constituent equity interests.

For this purpose, an "absence of trading" in the primary securities market on which option or futures contracts related to the relevant Index or any Index Constituent equity interests are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Discontinuance of or Adjustments to the Relevant Index; Alteration of Method of Calculation

If the Index Sponsor or another entity that publishes the Index (such other entity to be named in "Principal Terms" above) discontinues publication of the relevant Index, or if our right to use the Index is suspended or terminated, and the Index Sponsor or such other entity publishes a successor or substitute index that the Calculation Agent determines to be comparable to the discontinued relevant Index (such index being referred to herein as a "Successor Index"), then the Index Closing Level for such Successor Index will be determined by the Calculation Agent by reference to the Successor Index on the dates and at the times as of which the Index Closing Levels for such Successor Index are to be determined.

Upon any selection by the Calculation Agent of a Successor Index, the Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor discontinues publication of the relevant Index, or if our right to use the Index is suspended or terminated, prior to, and such discontinuation or unavailability is continuing on, any Quarterly Valuation Date, any Averaging Date, any Redemption Valuation Date or any other relevant date on which the Index Closing Level is to be determined and the Calculation Agent determines that no Successor Index is available at such time, or the Calculation Agent has previously selected a Successor Index and publication of such Successor Index is discontinued prior to, and such discontinuation is continuing on any relevant date on which the Index Closing Level is to be determined, then the Calculation Agent will determine the Index Closing Level using the closing level and published share weighting of each Index Constituent Security included in the relevant Index or Successor Index, as applicable, immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions as described in the description of the relevant Index included in "Principal Terms" above. In such event, the Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the relevant Index or Successor Index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the relevant Index or a Successor Index, or the value thereof, is changed in a material respect, or if the relevant Index or a Successor Index is in any other way modified so that the level of the relevant Index or such Successor Index does not, in the opinion of the Calculation Agent, fairly represent the level of the relevant Index or such Successor Index had such changes or modifications not been made, then the Calculation Agent will make such calculations and adjustments as, in the judgment of the Calculation Agent, may be necessary in order to arrive at a level of an index comparable to the relevant Index or such Successor Index, as the case may be, as if such changes or modifications had not been made, and the Calculation Agent will calculate the levels for the relevant Index or such Successor Index with reference to the relevant Index or such Successor Index, as adjusted. The Calculation Agent will accordingly calculate the relevant Index levels, Accrued Fees and the Redemption Fee and/or the Loss Rebalancing Fees, if applicable, based on the Index levels calculated by the Calculation Agent, as adjusted. Accordingly, if the method of calculating the relevant Index or a Successor Index is modified so that the level of the relevant Index or such Successor Index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the relevant Index), which, in turn, causes the level of the relevant Index or such Successor Index to be a fraction of what it would have been if there had been no such modification, then the Calculation Agent will make such calculations and adjustments in order to arrive at a level for the relevant Index or such Successor Index as if it had not been modified (*e.g.*, as if such split had not occurred).

Redemption Price Upon Optional Tax Redemption

We have the right to redeem any series of the Securities in the circumstances described in “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Optional Tax Redemption”. If we exercise this right, the redemption price of that series of the Securities will be determined by the Calculation Agent in a manner reasonably calculated to preserve your and our relative economic position.

Default Amount on Acceleration

If an event of default occurs and the maturity of any series of the Securities is accelerated, we will pay the default amount in respect of the principal of the that series of Securities at maturity. We describe the default amount below under “— Default Amount”.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B are entitled to take any action under the indenture, we will treat the outstanding principal amount of each series of Securities as the outstanding principal amount of the Medium-Term Notes, Series B constituted by that series of Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants”.

Default Amount

The default amount for any series of the Securities on any day will be an amount, in U.S. dollars for the principal of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities of the accelerated series. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, plus
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities of the accelerated series, which we describe below, the holders of that series of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Business Days after the due date as described above. If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a division of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity, early redemption, acceleration or upon exercise by UBS of its call right will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in "Medium-Term Notes, Series B" under "Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities".

Defeasance

Neither full defeasance nor covenant defeasance, as described "Medium-Term Notes, Series B" under "Description of Debt Securities We May Offer — Defeasance and Covenant Defeasance", will apply to the Securities.

Reissuances or Reopened Issues

We may, at our sole discretion, "reopen" or reissue any series of the Securities. We intend to issue the Securities initially in an amount having the aggregate offering price specified in "Principal Terms" above. However, we may issue additional Securities in amounts that exceed the amount specified in "Principal Terms" above at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other Securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to "Medium Term Notes, Series B" under "Description of Debt Securities We May Offer — Amounts That We May Issue".

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities of any series and will have the same CUSIP number and will trade interchangeably with that series of the Securities immediately upon settlement. Any additional issuances will increase the aggregate Principal Amount of the outstanding Securities of the class, plus the aggregate Principal Amount of any Securities bearing the same CUSIP number that are issued pursuant to any future issuances of Securities bearing the same CUSIP number. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC's settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

Redemption Procedures

The redemption procedures for Early Redemption are specified under “— Redemption Procedures” in “Principal Terms” above, provided that any reference herein to 12:00 noon (New York City time) as the cutoff time (1) to deliver notice of redemption and (2) for aggregating redemption requests to determine whether an early redemption is a Regular Redemption or a Large Redemption shall be 9:00 a.m. (New York City time).

Additional Terms of the Securities

The general terms of the Securities in are modified by the specific definitions and terms below.

“Intraday Indicative Value” means the approximate intrinsic economic value of the Securities calculated by NYSE Arca, Inc. and published on Bloomberg (based in part on information provided by the Index Sponsor) or a successor via the facilities on the Consolidated Tape Association under the symbol “FIHDIV”.

“Trading Day” means any day on which (i) trading is generally conducted on NYSE Arca and (ii) the level of the Index is published by the Index Sponsor, in each case as determined by the Calculation Agent.

“Primary Exchange” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading for such Index Constituent Security or such constituent underlying a successor index.

4. ETRACS UBS Bloomberg Constant Maturity Commodity Index (CMCI) Total Return ETN Series B due April 5, 2038

Specific Terms of the Securities

In this section, references to “holders” or “you” mean those who own the Securities registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

These Securities are part of a single series of senior debt securities issued under our indenture dated as of June 12, 20015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

Principal Amount: \$100,000,000

Issuer: UBS AG (London Branch)

Coupon

We will not pay you interest during the term of the Securities.

Denomination

The Stated Principal Amount of the Securities is \$25 per Security.

Payment at Maturity or Upon Early Redemption

At maturity or upon early redemption, you will receive a cash payment per \$25 Stated Principal Amount of your Securities equal to the Redemption Amount, which is calculated on the Final Valuation Date or the applicable Valuation Date, as the case may be, and based on the percentage change in the level of the Index from the Initial Trade Date relative to such Valuation Date.

The “Redemption Amount” will equal:

$$(\$25.00 \times \text{Index Performance Ratio}) - \text{Fee Amount}$$

For purposes of calculating the Redemption Amount at maturity or upon early redemption, the Index Performance Ratio will be determined as of the corresponding Final Valuation Date or Valuation Date, as the case may be. If the amount so calculated is equal to or less than zero, the payment at maturity will be zero.

The “Index Performance Ratio” will be calculated as follows:

$$\frac{\text{Index Ending Level}}{\text{Index Starting Level}}$$

The “Index Starting Level” is 1,436.54, the closing level of the Index measured on April 1, 2008.

The “Index Ending Level” will equal the closing level of the Index on the applicable Trading Day.

The “Fee Amount” accrues on a daily basis. The initial Fee Amount will be \$0.9565 and beginning on and including the Initial Trade Date will increase each subsequent calendar date by an amount equal to: $(0.55\%/365) \times \$25.00 \times \text{Index Performance Ratio}$ on that day. For the purpose of calculating the Fee Amount, the Index Performance Ratio on any day that is not a Trading Day is the Index Performance Ratio as of the immediately preceding Trading Day.

Unlike ordinary debt securities, the Securities do not pay interest and do not guarantee any return of principal at maturity or upon an early redemption.

The Securities are fully exposed to any decline in the level of the Index. You may lose some or all of your investment if the Index level on the Final Valuation Date or the applicable Valuation Date, as the case may be, is less than the Index Starting Level or if the Index level does not increase by an amount sufficient to offset the negative effect of the Fee Amount. In addition, the Fee Amount will be calculated and accumulated based on a daily Index level and therefore will depend on the daily fluctuations of the Index level. If the amount calculated above is equal to or less than zero, the payment at maturity, call or upon early redemption will be zero.

To receive at least your Stated Principal Amount at maturity or upon early redemption, the Index must increase by a certain amount to offset the reduction to the Redemption Amount caused by the Fee Amount.

Maturity Date

The “Maturity Date” is April 5, 2038, unless that day is not a Business Day, in which case the Maturity Date will be the next following Business Day. If the third Trading Day before April 5, 2038 does not qualify as the Final Valuation Date as determined in accordance with “— Final Valuation Date” below, then the Maturity Date will be the third Trading Day following the Final Valuation Date or, if such day is not a Business Day, the next following Trading Day that is also a Business Day. The Calculation Agent may postpone the Final Valuation Date — and therefore the Maturity Date — if a market disruption event occurs or is continuing on a day that would otherwise be the Final Valuation Date. We describe market disruption events under “— Market Disruption Event” below.

Final Valuation Date

We currently expect the “Final Valuation Date” to be March 31, 2038, unless the Calculation Agent determines that a market disruption event occurs or is continuing on that day. In that event, the Final Valuation Date will be the first following Trading Day on which the Calculation Agent determines that a market disruption event does not occur and is not continuing. In no event, however, will the Final Valuation Date for the Securities be postponed by more than five (5) Trading Days.

Underlying Index

The return on the Securities is linked to the performance of the UBS Bloomberg Constant Maturity Commodity Index (CMCI) Total Return (the “Index”). The Index is designed to be a diversified benchmark for commodities as an asset class. The Index, which is rebalanced monthly, is comprised of futures contracts on 27 components, representing 24 commodities, with up to five different maturities for each individual commodity. The Index is a “total return” index. The overall return on the Index is generated by two components: (i) uncollateralized returns on the futures contracts comprising the Index and (ii) a daily fixed-income return, which reflects the interest earned on a hypothetical 91-day Treasury Bill portfolio theoretically deposited as margin for hypothetical positions in the futures contracts comprising the Index.

Early Redemption

You may elect to require UBS to redeem your Securities, in whole or in part, prior to the Maturity Date on any Trading Day through and including the final Redemption Date, subject to a minimum redemption amount of at least 50,000 Securities. If you elect to have UBS redeem your Securities, you will receive a cash payment equal to the Redemption Amount, which will be determined on the applicable Valuation Date and paid on the applicable Redemption Date. You must comply with the redemption procedures described below in order to redeem your Securities. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities. We may from time to time in our sole discretion reduce, in part or in whole, the minimum redemption amount of 50,000 Securities. Any such reduction will be applied on a consistent basis for all holders of the Securities at the time the reduction becomes effective.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption to UBS via email no later than 12:00 p.m. (New York City time) on any Trading Day. If we receive your notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption to us via facsimile in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Valuation Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m. (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 12:00 p.m. (New York City time), or your confirmation of redemption after 5:00 p.m. (New York City time), on the Trading Day prior to the applicable Valuation Date, your notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

Redemption Dates

The “Redemption Dates” will be the third Trading Day following a Valuation Date (other than the Final Valuation Date) or, if such day is not a Business Day, the next following Trading Day that is a Business Day. The final Redemption Date will be the third Trading Day following the Valuation Date that immediately precedes the Final Valuation Date or, if such day is not a Business Day, the next following Trading Day that is a Business Day. The Calculation Agent may postpone the applicable Valuation Date — and therefore the applicable Redemption Date — if a market disruption event occurs or is continuing on a day that would otherwise be the applicable Valuation Date. We describe market disruption events under “— Market Disruption Event” below.

Valuation Dates

For any early redemption, the applicable “Valuation Date” means the first Trading Day immediately following the Trading Day on which you deliver a redemption notice to UBS in compliance with the redemption procedures. In the event UBS exercises its Call Right (as defined below), the Valuation Date means the third Trading Day prior to the Call Settlement Date (as defined below). If the Calculation Agent determines that a market disruption event occurs or is continuing on a Valuation Date, the applicable Valuation Date will be the first following Trading Day on which the Calculation Agent determines that a market disruption event does not occur and is not continuing. In no event, however, will the applicable Valuation Date for the Securities be postponed by more than five (5) Trading Days. The Final Valuation Date is March 31, 2038.

UBS’s Call Right

On any Trading Day on or after October 17, 2016 through and including the Maturity Date (any such day, the “Call Settlement Date”), UBS may at its option redeem all, but not less than all, issued and outstanding Securities. To exercise its Call Right, UBS must provide notice to the holders of the Securities not less than five (5) Trading Days prior to the Call Settlement Date specified by UBS in such notice. If UBS elects to redeem the Securities on the Call Settlement Date, the Holder will receive a cash payment equal to the Redemption Amount, which will be calculated on the applicable Valuation Date and paid on the Call Settlement Date. The Calculation Agent may postpone the applicable Valuation Date — and therefore the Call Settlement Date — if a market disruption event occurs and is continuing on a day that would otherwise be the applicable Valuation Date.

In the event we exercise our Call Right, references to payment upon early redemption also refer to payment upon our exercise of our call right. See “— Payment at Maturity or Upon Early Redemption.” We discuss redemption “Medium-Term Notes, Series B” above under “Description of the Debt Securities We May Offer—Redemption and Payment.”

Market Disruption Event

The Calculation Agent will determine the Index Ending Level on the applicable Valuation Date or the Final Valuation Date, as the case may be. If the level of the Index has declined, you may lose some or all of your investment. If the level of the Index has increased, it must have increased by an amount sufficient to offset the Fee Amount in order to receive a positive return on your Securities. As described above, the applicable Valuation Date or the Final Valuation Date, as the case may be, may be postponed and thus the determination of the Index Ending Level may be postponed if the Calculation Agent determines that, on the applicable Valuation Date or the Final Valuation Date, as the case may be, a market disruption event has occurred or is continuing. Notwithstanding the occurrence of one or more of the events below, which may, in the Calculation Agent’s discretion, constitute a market disruption event, the Calculation Agent in its discretion may waive its right to postpone the determination of the Index Ending Level if it determines that one or more of the below events has not and is not likely to materially impair its ability to determine the Index Ending Level on such date. If such a postponement occurs, the Calculation Agent will use the closing level of the Index on the first Trading Day on which no market disruption event occurs or is continuing. In no event, however, will the determination of the Index Ending Level be postponed by more than five (5) Trading Days.

If the determination of the Index Ending Level is postponed to the last possible day, but a market disruption event occurs or is continuing on that day, that day will nevertheless be the date on which the Index Ending Level will be determined by the Calculation Agent. In such an event, the Calculation Agent will make a good faith estimate in its sole discretion of the Index Ending Level that would have prevailed in the absence of the market disruption event.

Any of the following will be a market disruption event:

- the absence or suspension of, or material limitation or disruption in the trading of any exchange-traded futures contract included in the Index;
- the settlement price of any such contract has increased or decreased by an amount equal to the maximum permitted price change from the previous day's settlement price;
- the Index is not published;
- the settlement price is not published for any individual exchange-traded futures contract included in the Index;
- the occurrence of any event on any day or any number of consecutive days as determined by the Calculation Agent in its sole and reasonable discretion that affects our currency hedging (if any) with respect to U.S. dollars or the currency of any futures contract included in the Index; or
- in any other event, if the Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect .

The following events will not be market disruption events:

- a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Commodity.

For this purpose, an "absence of trading" in the primary securities market on which option or futures contracts related to a basket or any Index Commodities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under "Description of Debt Securities We May Offer —Optional Tax Redemption" in "Medium-Term Notes, Series B" above. If we exercise this right, the redemption price of the Securities will be determined by the Calculation Agent in a manner reasonably calculated to preserve your and our relative economic position.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under "— Default Amount."

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Series B medium-term notes, holders of specified percentages in principal amount of all Series B medium-term notes, together in some cases with other series of our debt securities, will be able to take action affecting all the Series B medium-term notes, including the Securities. This action may involve changing some of the terms that apply to the Series B medium-term notes, accelerating the maturity of the Series B medium-term notes after a default or waiving some of our obligations under the indenture. We discuss these matters in "Medium-Term Notes, Series B" above under "Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default" and "Description of Debt Securities We May Offer — Modification and Waiver of Covenants."

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars for the principal of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys' fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two (2) Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two (2) Business Day objection period have not ended before the applicable Valuation Date or the Final Valuation Date, as the case may be, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's, a division of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index; Alteration of Method of Calculation

If the Index Administrator discontinues publication of the Index and it or any other person or entity publishes a substitute index that the Calculation Agent determines is comparable to the Index and approves as a successor index, then the Calculation Agent will determine the Index Performance Ratio, Index Ending Level and the amount payable at maturity or upon early redemption by reference to such successor index.

If the Calculation Agent determines that the publication of the Index is discontinued and that there is no successor index on any date when the value of the Index is required to be determined, the Calculation Agent will instead make the necessary determination by reference to a group of commodities and options or another index and will apply a computation methodology that the Calculation Agent determines will as closely as reasonably possible replicate the Index.

If the Calculation Agent determines that the exchange-traded futures contracts included in the Index or the method of calculating the Index has been changed at any time in any respect — and whether the change is made by the Index Administrator under its existing policies or following a modification of those policies, is due to the publication of a successor index, is due to events affecting one or more of the Index Commodities or is due to any other reason — that causes the Index not to fairly represent the value of the Index had such changes not been made or that otherwise affects the calculation of the performance of the Index, the Index Ending Level or the amount payable at maturity or upon early redemption, then the Calculation Agent may make adjustments in the method of calculating the Index that it believes are appropriate to ensure that the Index Performance Ratio used to determine the amount payable on the Maturity Date or upon early redemption is equitable. All determinations and adjustments to be made by the Calculation Agent with respect to the performance of the Index, Index Ending Level, the amount payable at maturity or upon early redemption or otherwise relating to the level of the Index may be made by the Calculation Agent in its sole discretion.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or upon early redemption will be made to accounts designated by you and approved by us, or at the office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Trading Day

Trading Day means a day on which (i) the value of the Index is published by Bloomberg or Reuters, (ii) trading is generally conducted on NYSE Arca and (iii) trading is generally conducted on the markets on which the futures contracts comprising the Index are traded, in each case as determined by the Calculation Agent in its sole discretion.

Business Day

When we refer to a Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in “Medium-Term Notes, Series B” above.

Modified Business Day

As described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in “Medium-Term Notes, Series B”, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Maturity Date,” “— Redemption Date” and “— Valuation Date” above.

Role of Calculation Agent

Our affiliate, UBS Securities LLC, will serve as the Calculation Agent for the Securities. We may change the Calculation Agent after the original issue date of the Securities without notice. The Calculation Agent will make all determinations regarding the value of the Securities at maturity or upon early redemption, market disruption events, Trading Days, the default amount, the Index Starting Level, the Index Ending Level and the amount payable in respect of your Securities. Absent manifest error, all determinations of the Calculation Agent will be final and binding on you and us, without any liability on the part of the Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any of the above determinations by the Calculation Agent.

Reissuances or Reopened Issues

We may at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate stated principal amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed such amount at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B” above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate stated principal amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

5. ETRACS Bloomberg Commodity Index Total ReturnSM ETN Series B due October 31, 2039

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

The Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described in the accompanying prospectus. This prospectus supplement summarizes specific financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” in the accompanying prospectus. The terms described here (*i.e.*, in this prospectus supplement) supplement those described in the accompanying prospectus and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

Principal Amount: \$336,842,900

Issuer: UBS AG (London Branch)

Coupon

We will not pay you interest during the term of the Securities.

Denomination

The Stated Principal Amount per Security is \$25.00.

Payment at Maturity, Call or Upon Early Redemption

At maturity, call or upon early redemption, you will receive a cash payment per \$25.00 principal amount of your Securities equal to the Redemption Amount, which is calculated on the Final Valuation Date or the applicable Valuation Date, as the case may be, and based on the percentage change in the level of the Index from the Initial Trade Date relative to such Valuation Date.

The “**Redemption Amount**” will equal:

$$(\$25.00 \times \text{Index Performance Ratio}) \text{ — Fee Amount}$$

For purposes of calculating the Redemption Amount at maturity or upon early redemption, the Index Performance Ratio will be determined as of the corresponding Final Valuation Date or Valuation Date, as the case may be.

The “**Fee Amount**” is equal to 0.50% per annum, which accrues on a daily basis, with the Fee Amount equal to \$1.0823 on the Initial Trade Date, and then increasing, on each subsequent calendar day, by an amount equal to: $(0.50\%/365) \times \$25.00 \times \text{Index Performance Ratio}$ on that day. If such day is not a Trading Day, the Index Performance Ratio will be calculated as of the immediately preceding Trading Day.

The “**Index Performance Ratio**” will be calculated as follows:

$$\frac{\text{Index Ending Level}}{\text{Index Starting Level}}$$

The “**Index Starting Level**” is 264.194, the closing level of the Index on October 28, 2009.

The “**Index Ending Level**” will equal the closing level of the Index on the applicable Valuation Date.

Unlike ordinary debt securities, the Securities do not pay interest and do not guarantee any return of principal at maturity, call or upon an early redemption.

The Securities are fully exposed to any decline in the level of the Index. You may lose some or all of your investment if the Index level declines from the Initial Trade Date relative to the Final Valuation Date or the applicable Valuation Date, as the case may be, or if the Index does not increase as of such date by an amount sufficient to offset the cumulative effect of the Fee Amount.

To receive at least your initial investment at maturity or upon early redemption, the Index must increase by a certain amount to offset the reduction to the Redemption Amount caused by the Fee Amount.

Maturity Date

The Maturity Date is October 31, 2039, unless that day is not a Business Day, in which case the Maturity Date will be the next following Business Day. If the third Trading Day before October 31, 2039 does not qualify as the Final Valuation Date as determined in accordance with “— Final Valuation Date” below, then the Maturity Date will be the third Trading Day following the Final Valuation Date or, if such day is not a Business Day, the next following Trading Day that is also a Business Day. The calculation agent may postpone the Final Valuation Date — and therefore the Maturity Date — if a market disruption event occurs or is continuing on a day that would otherwise be the Final Valuation Date. We describe market disruption events under “— Market Disruption Event” below.

Final Valuation Date

We currently expect the Final Valuation Date to be the Trading Day that falls on October 26, 2039, unless the calculation agent determines that a market disruption event occurs or is continuing on that day. In that event, the Final Valuation Date will be the first following Trading Day on which the calculation agent determines that a market disruption event does not occur and is not continuing. In no event, however, will the Final Valuation Date for the Securities be postponed by more than five Trading Days.

Underlying Index

The return on the Securities is linked to the performance of the Bloomberg Commodity Index Total ReturnSM. The Index is composed of the prices of twenty-one exchange-traded futures contracts on physical commodities. An exchange-traded futures contract is a bilateral agreement providing for the purchase and sale of a specified type and quantity of a commodity or financial instrument during a stated delivery month for a fixed price. The twenty-three commodities included in the Index for 2020 are as follows: aluminum, Brent crude oil, coffee, copper, corn, cotton, gold, HRW wheat, lean hogs, live cattle, low sulfur gas oil, natural gas, nickel, RBOB gasoline, silver, soybeans, soybean meal, soybean oil, sugar, wheat, WTI crude oil, ULS diesel and zinc. The Index is a “total return” index. The overall return on the Index is generated by two components: (i) unleveraged returns on futures contracts on the physical commodities comprising the Index and (ii) the returns that correspond to the weekly announced interest rate for specified 3-month U.S. Treasury Bills.

Early Redemption

You may elect to require UBS to redeem your Securities, in whole or in part, prior to the Maturity Date on any Trading Day, provided that the Trading Day is also a Business Day, through and including the final Redemption Date, subject to a minimum redemption amount of at least 50,000 Securities. If you elect to have UBS redeem your Securities, you will receive a cash payment equal to the Redemption Amount, which will be determined on the applicable Valuation Date and paid on the applicable Redemption Date. You must comply with the redemption procedures described below in order to redeem your Securities. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities. UBS reserves the right from time to time to waive this minimum redemption amount in its sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, to UBS via email no later than 12:00 noon (New York City time) on any Trading Day. If we receive your notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption to us via facsimile in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Valuation Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 12:00 noon (New York City time), or your confirmation of redemption after 5:00 p.m. (New York City time), on the Trading Day prior to the applicable Valuation Date, your notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

Redemption Dates

The applicable Redemption Date will be the third Trading Day following a Valuation Date (other than the Final Valuation Date) or, if such day is not a Business Day, the next following Trading Day that is a Business Day. The final Redemption Date will be the third Trading Day following the Valuation Date that immediately precedes the Final Valuation Date or, if such day is not a Business Day, the next following Trading Day that is a Business Day. You should not assume that you will be entitled to any such acceleration. The calculation agent may postpone the applicable Valuation Date — and therefore the applicable Redemption Date — if a market disruption event occurs or is continuing on a day that would otherwise be the applicable Valuation Date. We describe market disruption events under “— Market Disruption Event” below.

Valuation Dates

For any early redemption, the applicable “**Valuation Date**” means the first Trading Day immediately following the Trading Day on which you deliver a redemption notice to UBS in compliance with the redemption procedures. You may, however, request that we accelerate the Redemption Date to the date on which the notice of redemption is received by UBS rather than the first Trading Day on which you deliver a redemption notice to us in compliance with the redemption procedures. You should not assume that you will be entitled to any such acceleration. We will be under no obligation to approve any such request, or to make any announcement regarding any decision by us to approve any such request. As a result, when considering making an investment in the Securities, you should assume that we will not choose to approve any request to accelerate the Redemption Valuation Date, or that if we do approve any such request, we will choose not to do so with respect to any redemption requests that you submit. In the event UBS exercises its call right, the Valuation Date means the third Trading Day prior to the Call Settlement Date (as defined below). If the calculation agent determines that a market disruption event occurs or is continuing on a Valuation Date, the applicable Valuation Date will be the first following Trading Day on which the calculation agent determines that a market disruption event does not occur and is not continuing. In no event, however, will the applicable Valuation Date for the Securities be postponed by more than five Trading Days. The Final Valuation Date is October 26, 2039.

UBS’s Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than ten calendar days’ prior notice to the holders of the Securities, such redemption to occur on any Trading Day (or if such day is not a Business Day, the next Trading Day that is also a Business Day) that we may specify through and including the Maturity Date (the “**Call Settlement Date**”). Upon early redemption in the event we exercise our call right, you will receive a cash payment equal to the Redemption Amount, which will be calculated on the applicable Valuation Date and paid on the Call Settlement Date. The calculation agent may postpone the applicable Valuation Date — and therefore the Call Settlement Date — if a market disruption event occurs and is continuing on a day that would otherwise be the applicable Valuation Date.

In the event we exercise our call right, references to payment upon early redemption also refer to payment upon our exercise of our call right. See “— Payment at Maturity, Call or Upon Early Redemption” above. We discuss these matters in “Medium- Term Notes, Series B” above under “Description of the Debt Securities We May Offer — Redemption and Repayment.”

Market Disruption Event

The calculation agent will determine the Index Ending Level on the applicable Valuation Date or the Final Valuation Date, as the case may be. If the level of the Index has declined, you will lose some or all of your investment. If the level of the Index has increased, it must have increased by an amount sufficient to offset the Fee Amount in order to receive a positive return on your Securities. As described above, the applicable Valuation Date or the Final Valuation Date, as the case may be, may be postponed and thus the determination of the Index Ending Level may be postponed if the calculation agent determines that, on the applicable Valuation Date or the Final Valuation Date, as the case may be, a market disruption event has occurred or is continuing. Notwithstanding the occurrence of one or more of the events below, which may, in the calculation agent’s discretion, constitute a market disruption event, the calculation agent in its discretion may waive its right to postpone the determination of the Index Ending Level if it determines that one or more of the below events has not and is not likely to materially impair its ability to determine the Index Ending Level on such date. If such a postponement occurs, the calculation agent will use the closing level of the Index on the first Trading Day on which no market disruption event occurs or is continuing. In no event, however, will the determination of the Index Ending Level be postponed by more than five Trading Days.

If the determination of the Index Ending Level is postponed to the last possible day, but a market disruption event occurs or is continuing on that day, that day will nevertheless be the date on which the Index Ending Level will be determined by the calculation agent. In such an event, the calculation agent will make a good faith estimate in its sole discretion of the Index Ending Level that would have prevailed in the absence of the market disruption event.

Any of the following will be a market disruption event:

- the absence or suspension of, or material limitation or disruption in the trading of any exchange-traded futures contract included in the Index;
- the settlement price of any such contract has increased or decreased by an amount equal to the maximum permitted price change from the previous day's settlement price;
- the Index is not published;
- the settlement price is not published for any individual exchange-traded futures contract included in the Index;
- the occurrence of any event on any day or any number of consecutive days as determined by the calculation agent in its sole and reasonable discretion that affects our currency hedging (if any) with respect to U.S. dollars or the currency of any futures contract included in the Index; or
- in any other event, if the calculation agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described below under "Use of Proceeds and Hedging".

The following events will not be market disruption events:

- a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Commodity.

For this purpose, an "absence of trading" in the primary securities market on which option or futures contracts related to a basket or any Index Commodities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

If a market disruption event affecting any Index Commodity occurs during the fifth through the ninth Business Days of each month (the "**Hedge Roll Period**") in any month other than January, then the daily roll of the relevant Designated Contract for such Index Commodity will be postponed until the next available Business Day on which a market disruption event does not occur, and the calculation of the Index will be adjusted to reflect this. The Hedge Roll Period will be extended only if a market disruption event affects an Index Commodity on the scheduled final Business Day comprising the Hedge Roll Period.

If a market disruption event affecting any Index Commodity occurs during the January Hedge Roll Period, then the rolling or rebalancing of the relevant Designated Contract will occur in all cases over five Business Days on which no market disruption event exists at a rate of 20% per day. The January Hedge Roll Period, and the resulting rebalancing that is scheduled to occur, will be extended in all cases until the affected Designated Contract finishes rolling over five Business Days not affected by a market disruption event.

If a market disruption event occurs on a CIM Determination Date in respect of any lead future for an Index Commodity used in the calculation of the CIMs, then the settlement prices used to calculate the CIMs for such year will be from the first prior Business Day on which a market disruption event had not occurred in any such futures.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under "Description of Debt Securities We May Offer — Optional Tax Redemption" in "Medium-Term Notes, Series B" above. If we exercise this right, the redemption price of the Securities will be determined by the calculation agent in a manner reasonably calculated to preserve your and our relative economic position.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under "— Default Amount."

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars for the principal of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the applicable Valuation Date or the Final Valuation Date, as the case may be, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s, a division of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index; Alteration of Method of Calculation

If BISL (the Index administrator) discontinues publication of the Index and it or any other person or entity publish a substitute index that the calculation agent determines is comparable to the Index and approves as a successor index then the calculation agent will determine the Index Performance Ratio, Index Ending Level and the amount payable at maturity, call or upon early redemption by reference to such successor index.

If the calculation agent determines that the publication of the Index is discontinued and that there is no successor index on any date when the value of the Index is required to be determined, the calculation agent will instead make the necessary determination by reference to a group of commodities and options or another index and will apply a computation methodology that the calculation agent determines will as closely as reasonably possible replicate the Index.

If the calculation agent determines that the exchange-traded futures contracts included in the Index or the method of calculating the Index has been changed at any time in any respect — and whether the change is made by the Index administrator under its existing policies or following a modification of those policies, is due to the publication of a successor index, is due to events affecting one or more of the Index Commodities or is due to any other reason — that causes the Index not to fairly represent the value of the Index had such changes not been made or that otherwise affects the calculation of the performance of the Index, the Index Ending Level or the amount payable at maturity, call or upon early redemption, then the calculation agent may make adjustments in the method of calculating the Index that it believes are appropriate to ensure that the Index Performance Ratio used to determine the amount payable on maturity, call or upon early redemption is equitable. All determinations and adjustments to be made by the calculation agent with respect to the performance of the Index, Index Ending Level, the amount payable at maturity, call or upon early redemption or otherwise relating to the level of the Index may be made by the calculation agent in its sole discretion.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity, call or upon early redemption will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Trading Day

“Trading Day” means a day on which (i) the value of the Index is published by Bloomberg L.P. or Reuters, (ii) trading is generally conducted on NYSE Arca and (iii) trading is generally conducted on the markets on which the futures contracts comprising the Index are traded, in each case as determined by the calculation agent in its sole discretion.

Business Day

When we refer to a “Business Day” with respect to the Securities, we mean a day that is a “business day” of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in “Medium-Term Notes, Series B” above.

Modified Business Day

As described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in “Medium-Term Notes, Series B” above, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Maturity Date,” “— Redemption Date” and “— Valuation Date” above.

Role of Calculation Agent

Our affiliate, UBS Securities LLC, will serve as the calculation agent for the Securities. We may change the calculation agent after the original issue date of the Securities without notice. The calculation agent will make all determinations regarding the value of the Securities at maturity, call or upon early redemption, market disruption events, Trading Days, the default amount, the Index Starting Level, the Index Ending Level and the amount payable in respect of your Securities. Absent manifest error, all determinations of the calculation agent will be final and binding on you and us, without any liability on the part of the calculation agent. You will not be entitled to any compensation from us for any loss suffered as a result of any of the above determinations by the calculation agent.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We may issue additional Securities in amounts that exceed the Stated Principal amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B” above.

These further issuances, if any, will be consolidated to form a single class with the Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class, plus the aggregate Stated Principal Amount of any Securities bearing the same CUSIP number that are issued pursuant to (i) any over-allotment option we may grant to an agent and (ii) any future issuances of Securities bearing the same CUSIP number. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC's settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

6. ETRACS Alerian MLP Infrastructure Index ETN Series B due April 2, 2040

Specific Terms of the Securities

In this section, references to “holders” or “you” mean those who own the Securities registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or call, or upon early redemption. Instead, at maturity, you will receive a cash payment the amount of which will vary depending on the performance of the VWAP Level calculated in accordance with the formula set forth below and will be reduced by the Accrued Tracking Fee as of the last Index Business Day in the Final Measurement Period. We refer to this cash payment as the “Cash Settlement Amount.” If the amount so calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment on the Redemption Date equal to the Redemption Amount as described below under “— Early Redemption at the Option of the Holders.”

If the amount so calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

The Securities may pay a cash coupon during their term.

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the difference between the Reference Distribution Amount, calculated as of the corresponding Coupon Valuation Date, and the Accrued Tracking Fee, calculated as of the corresponding Coupon Valuation Date (the “Coupon Amount”).

To the extent the Reference Distribution Amount on any Coupon Valuation Date is equal to or less than the Accrued Tracking Fee on the corresponding Coupon Valuation Date, there will be no Coupon Amount payment made on the corresponding Coupon Payment Date, and an amount equal to the difference between the Accrued Tracking Fee and the Reference Distribution Amount (the “Tracking Fee Shortfall”) will be included in the Accrued Tracking Fee for the next Coupon Valuation Date. This process will be repeated to the extent necessary until the Reference Distribution Amount for a Coupon Valuation Date is greater than the Accrued Tracking Fee for the corresponding Coupon Valuation Date. The final Coupon Amount will be included in the Cash Settlement Amount.

The “Coupon Payment Date” means the 15th Index Business Day following each Coupon Valuation Date, provided that the final Coupon Payment Date will be the Maturity Date, subject to adjustment as described herein. The first Coupon Payment Date will be January 22, 2016.

The “Coupon Record Date” means the ninth Index Business Day following each Coupon Valuation Date.

The “Coupon Ex-Date,” with respect to a Coupon Amount, means the first Exchange Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the second Exchange Business Day prior to the applicable Coupon Record Date.

The “Coupon Valuation Date” means the 30th of March, June, September and December of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date, subject to adjustment as described herein. The first Coupon Valuation Date will be December 30, 2015.

The “Reference Distribution Amount” means (i) as of the first Coupon Valuation Date, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to any Index constituent, for those cash distributions whose “ex-dividend date” occurs during the period from and excluding September 30, 2015 to and including the first Coupon Valuation Date; and (ii) as of any other Coupon Valuation Date, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to any Index constituent for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the immediately preceding Coupon Valuation Date to and including such Coupon Valuation Date.

Notwithstanding the foregoing, with respect to cash distributions for an Index constituent which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index constituent fails to pay the distribution to holders of such Index constituent by the scheduled payment date for such distribution, such distribution will be assumed to be zero for the purposes of calculating the applicable Reference Distribution Amount.

The “Reference Holder” is, as of any date of determination, a hypothetical holder of a number of units of each Index constituent equal to (i) the published unit weighting of that Index constituent as of that date, *divided by* (ii) the product of (a) the Index Divisor as of that date, and (b) the Initial VWAP Level divided by 25.

“record date” means, with respect to a distribution on an Index constituent, the date on which a holder of the Index constituent must be registered as a unitholder of such Index constituent in order to be entitled to receive such distribution.

“ex-dividend date” means, with respect to a distribution on an Index constituent, the first Business Day on which transactions in such Index constituent trade on the Primary Exchange without the right to receive such distribution.

The “Quarterly Tracking Fee” means, as of any date of determination, an amount per Security equal to the product of (i) 0.2125% (equivalent to 0.85% per annum) and (ii) the Current Indicative Value as of the immediately preceding Index Business Day.

The “Current Indicative Value,” as determined by the Security Calculation Agent, means, as of any date of determination, an amount per Security equal to the product of (i) the Stated Principal Amount multiplied by (ii) a fraction, the numerator of which is equal to the VWAP Level (as defined under “— Cash Settlement Amount at Maturity”) as of such date and the denominator of which is equal to the Initial VWAP Level. As of October 7, 2015, the Current Indicative Value was 29.8737.

The “Accrued Tracking Fee” is:

- (1) with respect to the first Coupon Valuation Date, an amount equal to:
 - the Quarterly Tracking Fee calculated as of the first Coupon Valuation Date (for the avoidance of doubt, the calculation of the Accrued Tracking Fee with respect to the first Coupon Valuation Date will be for a full quarter beginning from and excluding September 30, 2015);
- (2) with respect to any Coupon Valuation Date, other than the first and last Coupon Valuation Dates, an amount equal to the Quarterly Tracking Fee as of such Coupon Valuation Date *plus* the Tracking Fee Shortfall as of the immediately preceding Coupon Valuation Date, if any; and
- (3) with respect to the last Coupon Valuation Date, an amount equal to:
 - (a) the product of
 - (i) the Quarterly Tracking Fee as of such Coupon Valuation Date and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the immediately preceding Coupon Valuation Date to and including such Coupon Valuation Date, and the denominator of which is 90, *plus*
 - (b) the Tracking Fee Shortfall as of the immediately preceding Coupon Valuation Date. If there is a Tracking Fee Shortfall on the last Coupon Valuation Date, it will be taken into account in determining the Cash Settlement Amount, as described below.

The Accrued Tracking Fee also takes into account the performance of the Index, as measured by the VWAP Level.

Cash Settlement Amount at Maturity

The “Maturity Date” is April 2, 2040, subject to adjustment as described below under “— Market Disruption Event.” For each Security, unless earlier called or redeemed, you will receive at maturity a cash payment equal to:

- (a) the product of
 - (i) the Stated Principal Amount and
 - (ii) the Index Performance Ratio as of the last Index Business Day in the Final Measurement Period, *plus*

- (b) the final Coupon Amount, *minus*
- (c) the Accrued Tracking Fee as of the last Index Business Day in the Final Measurement Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Final Measurement Period, if any.

We refer to this cash payment as the “Cash Settlement Amount.” If the amount so calculated is equal to or less than zero, the payment at maturity will be zero.

The “Stated Principal Amount” of each Security is \$25.00.

You may lose some or all of your investment at maturity. The negative effect of the Accrued Tracking Fee will reduce your final payment. If the increase in the level of the Index (as measured by the Final VWAP Level, as compared to the Initial VWAP Level) is insufficient to offset the negative effect of the Accrued Tracking Fee (less any Coupon Amounts, any Stub Reference Distribution Amount and/or Adjusted Coupon Amount, as applicable, you may be entitled to receive), or if the Final VWAP Level is less than the Initial VWAP Level, you may lose some or all of your investment at maturity.

The “Index Performance Ratio” on any Index Business Day is calculated as follows:

$$\frac{\text{Final VWAP Level}}{\text{Initial VWAP Level}}$$

The “VWAP” with respect to each Index constituent, as of any date of determination, is the volume-weighted average price of one unit of such Index constituent as determined by the VWAP Calculation Agent based on the Primary Exchange for each Index constituent. For information about how the VWAP will be calculated to the extent a Disrupted Day exists with respect to an Index constituent, please see “— Market Disruption Event.”

The “Initial VWAP Level” is 487.420, the VWAP Level on March 31, 2010, as determined by the VWAP Calculation Agent. See “— VWAP Calculation Agent” below.

The “Final VWAP Level,” as determined by the VWAP Calculation Agent, will be the arithmetic mean of the VWAP Levels measured on each Index Business Day during the Final Measurement Period or Call Measurement Period or on any applicable Redemption Measurement Date, as applicable.

The “VWAP Level,” as determined by the VWAP Calculation Agent as of any Index Business Day, is equal to (1) the sum of the products of (i) the VWAP of each Index constituent as of such date and (ii) the published share weighting of that Index constituent as of such date divided by (2) the Index Divisor as of such date, or expressed as a formula, as follows:

where:

$$\text{VWAP Level} = \frac{\sum_{i=1}^n (\text{VWAP}_{i,t} * W_{i,t})}{\text{Index Divisor}_t}$$

n is the number of Index constituents;

$\text{VWAP}_{i,t}$ is the VWAP of Index constituent i as of Index Business Day t ;

$W_{i,t}$ is the published share weighting of Index constituent i as of Index Business Day t ; and

Index Divisor_t is the Index Divisor as of Index Business Day t .

As of October 7, 2015, the VWAP Level was 582.442.

The “Index Divisor,” as of any date of determination, is the divisor used by the Index Calculation Agent to calculate the level of the Index.

The “Accrued Tracking Fee” as of the last Index Business Day in the Final Measurement Period is an amount equal to:

- (a) the product of
 - (i) the Quarterly Tracking Fee calculated as of the last Index Business Day in the Final Measurement Period and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the Calculation Date to and including the last Index Business Day in the Final Measurement Period, and the denominator of which is 90, *plus*
- (b) the Tracking Fee Shortfall as of the last Coupon Valuation Date, if any.

The Accrued Tracking Fee also takes into account the performance of the Index, as measured by the VWAP Level.

The “Final Measurement Period” means the five (5) Index Business Days from and including the Calculation Date, subject to adjustment as described under “— Market Disruption Event.”

The “Stub Reference Distribution Amount” means, as of the last Index Business Day in the Final Measurement Period or Call Measurement Period, as applicable, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to any Index constituent, for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the first Index Business Day in the Final Measurement Period or Call Measurement Period, as applicable, to and including the last Index Business Day in the Final Measurement Period or Call Measurement Period, as applicable, provided, that for the purpose of calculating the Stub Reference Distribution Amount, the Reference Holder will be deemed to hold 4/5 ths, 3/5 ths, 2/5 ths and 1/5 th of the shares of each Index constituent it would otherwise hold on the second, third, fourth and fifth Index Business Day, respectively, in such Final Measurement Period or Call Measurement Period.

The “Index Calculation Agent” means the entity that calculates and publishes the level of the Index, which is currently S&P.

The “Calculation Date” means March 23, 2040, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

“Index Business Day” means any day on which the Primary Exchange and each Related Exchange are scheduled to be open for trading.

“Exchange Business Day” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“Business Day” means any day that is not a Saturday, a Sunday or a day on which banking institutions in The City of New York, generally, are authorized or obligated by law, regulation or executive order to close.

“Primary Exchange” means, with respect to each Index constituent or each constituent underlying a successor index, the primary exchange or market of trading such Index constituent or such constituent underlying a successor index.

“Related Exchange” means, with respect to each Index constituent or each constituent underlying a successor index, each exchange or quotation system where trading has a material effect (as determined by the Security Calculation Agent) on the overall market for futures or options contracts relating to such Index constituent or such constituent underlying a successor index.

Underlying Index

The Alerian MLP Infrastructure Index measures the performance of energy infrastructure master limited partnerships (“MLPs”), and is calculated by S&P Dow Jones Indices using a float-adjusted, capitalization-weighted methodology. We refer to the MLPs included in the Index as the “Index constituents.” The Index constituents earn the majority of their cash flow from gathering and processing, liquefaction, midstream services, pipeline transportation, rail terminating and storage of energy commodities.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Business Day no later than 12:00 noon, New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on the Business Day immediately preceding the applicable Redemption Valuation Date, provided that you request that we redeem a minimum of 50,000 Securities. For any applicable redemption request, the “Redemption Valuation Date” will be the first Index Business Day following the date that the applicable Redemption Notice and Redemption Confirmation are delivered. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities. We may from time to time in our sole discretion reduce, in part or in whole, the minimum redemption amount of 50,000 Securities. Any such reduction will be applied on a consistent basis for all holders of the Securities at the time the reduction becomes effective.

The Securities will be redeemed and the holders will receive payment for their Securities on the third Business Day following the applicable Redemption Measurement Date (the “Redemption Date”). The first Redemption Date will be October 15, 2015. If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index constituents, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

The applicable “Redemption Measurement Date” means the Index Business Day following the applicable Redemption Valuation Date, subject to adjustments as described under “— Market Disruption Event.”

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

- (a) the product of
 - (i) the Stated Principal Amount and

(ii) the Index Performance Ratio as of the Redemption Measurement Date, *plus*

- (b) the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Redemption Valuation Date if on the Redemption Measurement Date the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *plus*
- (c) the Adjusted Coupon Amount, if any, *minus*
- (d) the Accrued Tracking Fee as of the Redemption Measurement Date, *minus*
- (e) the Redemption Fee Amount.

We refer to this cash payment as the “Redemption Amount.” We have determined to offer all holders of the Securities the option, upon early redemption and solely for purposes of determining the Redemption Amount, but not for any other purpose, to elect that the Index Performance Ratio (which is used to calculate the Redemption Amount) be calculated using the Index Closing Level on the Redemption Measurement Date instead of the Final VWAP Level. If the redeeming holder so elects, the Index Performance Ratio will be calculated, for purposes of determining the Redemption Amount, as:

$$\frac{\text{Index Closing Level on the Redemption Measurement Date}}{\text{Initial VWAP Level}}$$

The “Index Closing Level” is the closing level of the Index as reported on the NYSE and Bloomberg; provided, however, that if the closing level of the Index as reported on the NYSE (or any successor) differs from the closing level of the Index as reported on Bloomberg (or any successor), then the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent.

If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero.

We will inform you of such Redemption Amount on the first Business Day following the applicable Redemption Measurement Date.

You may lose some or all of your investment upon early redemption. The combined negative effect of the Accrued Tracking Fee and the Redemption Fee Amount will reduce your final Redemption Amount. If the level of the Index (as measured by the Final VWAP Level as compared to the Initial VWAP Level) does not increase by an amount sufficient to offset the combined negative effect of the Accrued Tracking Fee and the Redemption Fee Amount (less any Coupon Amounts, any Stub Reference Distribution Amount, as applicable, and/or any Adjusted Coupon Amount, you may be entitled to receive), you may lose some or all of your investment upon early redemption.

The Accrued Tracking Fee as of the Redemption Measurement Date is an amount equal to:

- (a) the product of
 - (i) the Quarterly Tracking Fee calculated as of the Redemption Measurement Date, and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the Redemption Valuation Date to and including the Redemption Measurement Date, and the denominator of which is 90,

plus

- (b) the Adjusted Tracking Fee Shortfall, if any.

The “Adjusted Coupon Amount,” with respect to any Redemption Valuation Date, is an amount in cash equal to the difference between the Adjusted Reference Distribution Amount, calculated as of such Redemption Valuation Date, and the Adjusted Tracking Fee, calculated as of such Redemption Valuation Date. To the extent the Adjusted Reference Distribution Amount is less than the Adjusted Tracking Fee, the Redemption Amount will not include an Adjusted Coupon Amount, and the Adjusted Tracking Fee Shortfall will be included in the calculation of the Accrued Tracking Fee as of the applicable Redemption Measurement Date.

The “Adjusted Reference Distribution Amount,” as of any Redemption Valuation Date, is an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to an Index constituent, for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the immediately preceding Coupon Valuation Date (or if the Redemption Valuation Date occurs prior to the first Coupon Valuation Date, the period from and excluding September 30, 2015) to and including such Redemption Valuation Date.

The “Adjusted Tracking Fee” is:

- (1) as of any Redemption Valuation Date occurring prior to the first Coupon Valuation Date, an amount equal to:
 - the product of
 - (i) the Quarterly Tracking Fee as of such Redemption Valuation Date and

- (ii) a fraction, the numerator of which is the total number of calendar days from and excluding September 30, 2015 to and including such Redemption Valuation Date, and the denominator of which is 90; and
- (2) as of any Redemption Valuation Date occurring on or after the first Coupon Valuation Date, an amount equal to:
 - (a) the Tracking Fee Shortfall as of the immediately preceding Coupon Valuation Date *plus*
 - (b) the product of
 - (i) the Quarterly Tracking Fee as of such Redemption Valuation Date and
 - (iii) a fraction, the numerator of which is the total number of calendar days from and excluding the immediately preceding Coupon Valuation Date to and including such Redemption Valuation Date, and the denominator of which is 90.

The “Adjusted Tracking Fee Shortfall,” as of any Redemption Valuation Date, is the difference between the Adjusted Tracking Fee and the Adjusted Reference Distribution Amount, to the extent that the Adjusted Reference Distribution Amount, calculated as of such Redemption Valuation Date, is less than the Adjusted Tracking Fee, calculated as of such Redemption Valuation Date.

The “Redemption Fee Amount” means an amount equal to 0.125% of the Stated Principal Amount of the Securities.

Some of the defined terms used in this section have different applications when used in determining the Call Settlement Amount. For the definitions of the terms relevant to a call, please refer to “— UBS’s Call Right” below.

We discuss redemption in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Redemption and Payment.”

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the repurchase feature in this manner.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “Redemption Notice” to UBS via email no later than 12:00 noon (New York City time) on the Business Day immediately preceding the applicable Redemption Valuation Date. If we receive your notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “Redemption Confirmation,” to us via facsimile in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m. (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 12:00 noon (New York City time), or your confirmation of redemption after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

UBS’s Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen (18) calendar days’ prior notice to the holders of the Securities, such redemption to occur on any Business Day that we may specify on or after October 17, 2016 through and including the Maturity Date (the “Call Settlement Date”). Upon early redemption in the event we exercise this right, you will receive a cash payment equal to:

- (a) the product of
 - (i) the Stated Principal Amount and
 - (ii) the Index Performance Ratio as of the last Index Business Day in the Call Measurement Period, *plus*

- (b) the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Call Valuation Date if on the last Index Business Day in the Call Measurement Period the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *plus*
- (c) the Adjusted Coupon Amount, if any, *minus*
- (d) the Accrued Tracking Fee as of the last Index Business Day in the Call Measurement Period, *plus*
- (e) the Stub Reference Distribution Amount as of the last Index Business Day in the Call Measurement Period, if any.

We refer to this cash payment as the “Call Settlement Amount.”

If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Business Day following the last Index Business Day in the Call Measurement Period (the “Call Settlement Date”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index constituents, such Call Valuation Date may be postponed as described under “— Market Disruption Event.”

The “Call Measurement Period” means the five (5) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”

You may lose some or all of your investment upon a call. The negative effect of the Accrued Tracking Fee will reduce your final payment. If the increase in the Final VWAP Level, as compared to the Initial VWAP Level, is insufficient to offset the negative effect of the Accrued Tracking Fee (less any Coupon Amounts, any Stub Reference Distribution Amount and/or any Adjusted Coupon Amount, you may be entitled to receive), or if the Final VWAP Level is less than the Initial VWAP Level, you may lose some or all of your investment upon a call.

The Accrued Tracking Fee as of the last Index Business Day in the Call Measurement Period is an amount equal to:

- (a) the product of
 - (i) the Quarterly Tracking Fee calculated as of the last Index Business Day in such Call Measurement Period, and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the Call Valuation Date to and including the last Index Business Day in such Call Measurement Period, and the denominator of which is 90, *plus*
- (b) the Adjusted Tracking Fee Shortfall (as defined below), if any.

The Accrued Tracking Fee also takes into account the performance of the Index, as measured by the VWAP Level.

The “Adjusted Coupon Amount,” with respect to the Call Valuation Date, is an amount in cash equal to the difference between the Adjusted Reference Distribution Amount (as defined below), calculated as of the Call Valuation Date, and the Adjusted Tracking Fee (as defined in the preceding paragraph), calculated as of such Call Valuation Date. To the extent the Adjusted Reference Distribution Amount is less than the Adjusted Tracking Fee, the Call Settlement Amount will not include an Adjusted Coupon Amount, and the Adjusted Tracking Fee Shortfall (as defined below) will be included in the calculation of the Accrued Tracking Fee as of the last Index Business Day in the Call Measurement Period.

The “Adjusted Reference Distribution Amount,” as of the Call Valuation Date, is an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to an Index constituent, for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the immediately preceding Coupon Valuation Date to and including the Call Valuation Date.

The “Adjusted Tracking Fee” is, as of the Call Valuation Date, an amount equal to:

- (a) the Tracking Fee Shortfall as of the immediately preceding Coupon Valuation Date *plus*
- (b) the product of
 - (i) the Quarterly Tracking Fee as of such Call Valuation Date and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the immediately preceding Coupon Valuation Date to and including such Call Valuation Date, and the denominator of which is 90.

The “Adjusted Tracking Fee Shortfall,” as of the Call Valuation Date, is the difference between the Adjusted Tracking Fee and the Adjusted Reference Distribution Amount, to the extent that the Adjusted Reference Distribution Amount, calculated as of such Call Valuation Date, is less than the Adjusted Tracking Fee, calculated as of such Call Valuation Date.

Some of the defined terms used in this section have different applications when used in determining the Redemption Amount. For the definition of the terms relevant to early redemption, please refer to “— Early Redemption at the Option of the Holders” above.

Security Calculation Agent

UBS Securities LLC will act as the “Security Calculation Agent.” The Security Calculation Agent will determine, among other things, the Current Indicative Value, the Index Performance Ratio, the Coupon Amount, the Adjusted Coupon Amount, if any, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Adjusted Reference Distribution Amount, the Accrued Tracking Fee (including the Quarterly Tracking Fee, any Tracking Fee Shortfall and any Adjusted Tracking Fee Shortfall), the Adjusted Tracking Fee, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Final Measurement Period, the Coupon Payment Dates, the Coupon Valuation Dates, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable, the Call Settlement Date, the Call Valuation Date, the Call Measurement Period and the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, and whether any day is a Business Day, Exchange Business Day or Index Business Day. The Security Calculation Agent will also be responsible for determining whether a Market Disruption Event has occurred, whether the Index has been discontinued and whether there has been a material change in the Index. All determinations made by the Security Calculation Agent will be at the sole discretion of the Security Calculation Agent and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different Security Calculation Agent from time to time without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or call, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 p.m., New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Adjusted Coupon Amount, if any, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Adjusted Reference Distribution Amount, the Accrued Tracking Fee (including the Quarterly Tracking Fee, any Tracking Fee Shortfall and any Adjusted Tracking Fee Shortfall), the Adjusted Tracking Fee, the Redemption Amount and Redemption Fee Amount, if any, per security, the Call Settlement Amount, if any, per security, and the Cash Settlement Amount, if any, per security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid on the aggregate principal amount of Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

VWAP Calculation Agent

The NYSE will on each day that is not a Disrupted Day (as defined below) act as the “VWAP Calculation Agent.” The VWAP Calculation Agent will determine the VWAP of any Index constituent, the VWAP Level and the Final VWAP Level on any Index Business Day on which such VWAP, VWAP Level and Final VWAP Level are to be determined during the term of the Securities. The VWAP Calculation Agent determined the Initial VWAP Level of 487.420 as of March 31, 2010. All determinations made by the VWAP Calculation Agent will be at the sole discretion of the VWAP Calculation Agent and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different VWAP Calculation Agent from time to time without your consent and without notifying you.

All calculations with respect to the VWAP of any Index constituent, any VWAP Level, and the Final VWAP Level will be rounded to the nearest thousandth, with five ten-thousandths rounded upward (e.g., .8765 would be rounded to .877).

Market Disruption Event

To the extent a Disrupted Day (as defined below) exists with respect to an Index constituent on an Averaging Date (as defined below) or on a Redemption Measurement Date, the VWAP and published share weighting with respect to such Index constituent (and only with respect to such Index constituent) for such Averaging Date or Redemption Measurement Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day that is not a Disrupted Day (the “Deferred Averaging Date”) with respect to such Index constituent irrespective of whether pursuant to such determination, the Deferred Averaging Date would fall on a date originally scheduled to be an Averaging Date. If the postponement described in the preceding sentence results in the VWAP of a particular Index constituent being calculated on a day originally scheduled to be an Averaging Date, for purposes of determining the VWAP Levels on the Index Business Days during the Final Measurement Period or Call Measurement Period, or on the Redemption Measurement Date, as applicable, the Security Calculation Agent or one of its affiliates, as the case may be, will apply the VWAP and the published share weighting with respect to such Index constituent for such Deferred Averaging Date to the calculation of the VWAP Level (i) on the date(s) of the original disruption with respect to such Index constituent and (ii) such Averaging Date. For example, if the Final Measurement Period or Call Measurement Period, as applicable, for purposes of calculating the Cash Settlement Amount or Call Settlement Amount, respectively, is based on the arithmetic mean of the VWAP Levels on June 6, 2016, June 7, 2016, June 8, 2016, June 9, 2016 and June 10, 2016 and there is a Market Disruption Event for an Index constituent on June 6, 2016, but no other Market Disruption Event during the Final Measurement Period or Call Measurement Period, as applicable, then the VWAP for such disrupted Index constituent on June 7, 2016 will be used more than once to calculate the Cash Settlement Amount or Call Settlement Amount, respectively, and such Cash Settlement Amount or Call Settlement Amount, as applicable, will be determined based on the arithmetic mean of the VWAP for such disrupted Index constituent on June 7, 2016, June 7, 2016, June 8, 2016, June 9, 2016 and June 10, 2016.

If the Redemption Measurement Date for purposes of calculating a Redemption Amount is based on the VWAP Level on June 6, 2016 and there is a Market Disruption Event for an Index constituent on June 6, 2016, then the VWAP for such disrupted Index constituent on June 7, 2016 will be used to calculate the Redemption Amount.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the final Averaging Date or the Redemption Measurement Date, as applicable, with respect to any Index constituent occurring more than three (3) Index Business Days following the day originally scheduled to be such final Averaging Date or Redemption Measurement Date. If the third Index Business Day following the date originally scheduled to be the final Averaging Date, or the Redemption Measurement Date, as applicable, is not an Index Business Day or is a Disrupted Day with respect to such Index constituent, the Security Calculation Agent or one of its affiliates will determine the VWAP and share weighting with respect to any Index constituent required to be determined for the purpose of calculating the applicable VWAP Level based on its good faith estimate of the VWAP and share weighting of each such Index constituent that would have prevailed on the Primary Exchange on such third Index Business Day but for such suspension or limitation.

An “Averaging Date” means each of the Index Business Days during the Final Measurement Period or Call Measurement Period, as applicable, subject to adjustment as described herein.

A “Disrupted Day” with respect to any Index constituent is any Index Business Day on which the Primary Exchange or any Related Exchange fails to open for trading during its regular trading session or on which a Market Disruption Event has occurred and is continuing, and, in both cases, the occurrence of which is determined by the Security Calculation Agent to have a material effect on the VWAP Level.

With respect to an Index constituent, a “Market Disruption Event” means:

- (a) the occurrence or existence of a condition specified below:
 - (i) any suspension, absence or limitation of trading on the Primary Exchange for trading in the Index constituent, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise,
 - (ii) any suspension, absence or limitation of trading on the Related Exchange for trading in futures or options contracts related to the Index constituent, whether by reason of movements in price exceeding limits permitted by such Related Exchange or otherwise, or
 - (iii) any event (other than an event described in (b) below) that disrupts or impairs (as determined by the Security Calculation Agent) the ability of market participants in general (A) to effect transactions in, or obtain market values for, the relevant Index constituent or (B) to effect transactions in, or obtain market values for, futures or options contracts relating to the relevant Index constituent; or
- (b) the closure on any Index Business Day of the Primary Exchange or any Related Exchange prior to its Scheduled Closing Time unless such earlier closing time is announced by the Primary Exchange or such Related Exchange at least one hour prior to the earlier of (i) the actual closing time for the regular trading session on the Primary Exchange or such Related Exchange on such Index Business Day and (ii) the submission deadline for orders to be entered into the Primary Exchange or such Related Exchange system for execution at the close of trading on such Index Business Day;

in each case determined by the Security Calculation Agent in its sole discretion; and

- (c) a determination by the Security Calculation Agent in its sole discretion that the event described above materially interfered with our ability or the ability of any of our affiliates to adjust or unwind all or a material portion of any hedge with respect to the Securities.

For purposes of the above definition:

- (a) a limitation on the hours or number of days of trading will not constitute a Market Disruption Event if it results from an announced change in the regular business hours of the Primary Exchange or Related Exchange, and
- (b) for purposes of clause (a) above, limitations pursuant to the rules of any Primary Exchange or Related Exchange similar to NYSE Rule 80B or Nasdaq Rule 4120 (or any applicable rule or regulation enacted or promulgated by any other self-regulatory organization or any government agency of scope similar to NYSE Rule 80B or Nasdaq Rule 4120 as determined by the Security Calculation Agent) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading.

“Scheduled Closing Time” means, with respect to the Primary Exchange or the Related Exchange, on any Index Business Day, the scheduled weekday closing time of the Primary Exchange or such Related Exchange on such Index Business Day, without regard to after hours or any other trading outside of the regular trading session hours.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under “Description of Debt Securities We May Offer — Optional Tax Redemption” in “Medium-Term Notes, Series B” above. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic position.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.” In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the four Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the fourth Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars for the principal of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, plus
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two (2) Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two (2) Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by S&P or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index; Alteration of Method of Calculation

If S&P discontinues publication of or otherwise fails to publish the Index, or S&P does not make the Index constituents, their share weighting and/or the Index Divisor available to the VWAP Calculation Agent, and the Index Sponsor, S&P or another entity publishes a successor or substitute index that the Security Calculation Agent determines to be comparable to the discontinued Index and for which the Index constituents, their share weighting, and/or the Index Divisor are available to the VWAP Calculation Agent (such index being referred to herein as a "successor index"), then the VWAP Level for such successor index will be determined by the VWAP Calculation Agent by reference to the sum of the products of the VWAPs of the components underlying such successor index on the Primary Exchanges and each such component's respective weighting within the successor index (which sum will be adjusted by any index divisor used by such successor index) on the dates and at the times as of which the VWAP Levels for such successor index are to be determined.

Upon any selection by the Security Calculation Agent of a successor Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If S&P discontinues publication of the Index or does not make the Index constituents, their share weightings and/or Index Divisor available to the VWAP Calculation Agent prior to, and such discontinuation or unavailability is continuing on the Calculation Date or any Index Business Day during the Final Measurement Period or Call Measurement Period, or on the Redemption Measurement Date, as applicable, or any other relevant date on which the VWAP Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during the Final Measurement Period or Call Measurement Period, or on the Redemption Measurement Date, as applicable, or any other relevant date on which the VWAP Level is to be determined, then the Security Calculation Agent will determine the relevant VWAP Levels using the VWAP and published share weighting of each Index constituent included in the Index or successor index, as applicable, immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index or a successor index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the VWAP Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the VWAP Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at a VWAP level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the VWAP Levels for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Final VWAP Level, the Current Indicative Value, the Index Performance Ratio, the Coupon Amount, the Adjusted Coupon Amount, if any, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Adjusted Reference Distribution Amount, the Accrued Tracking Fee (including the Quarterly Tracking Fee, any Tracking Fee Shortfall and any Adjusted Tracking Fee Shortfall), the Adjusted Tracking Fee, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, and the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, based on the relevant VWAP Levels calculated by the VWAP Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (e.g., due to a split in the Index), which, in turn, causes the VWAP Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at a VWAP Level for the Index or such successor index as if it had not been modified (e.g., as if such split had not occurred).

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or call, or upon early redemption will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in “Medium-Term Notes, Series B”.

Modified Business Day

As described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in “Medium-Term Notes, Series B” above, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Cash Settlement Amount at Maturity,” “— UBS’s Call Right” and “— Early Redemption at the Option of the Holders” above.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate stated principal amount specified on the cover of this prospectus supplement. We may issue additional Securities in amounts that exceed such amount any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B” above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate stated principal amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

7. ETRACS MVIS Business Development Companies Index
ETN due April 26, 2041

Specific Terms of the Securities

In this section, references to “holders” or “you” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of UBS AG debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

These Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or call, or upon early redemption. At maturity, you will receive a cash payment the amount of which will vary depending on the performance of the Index and will be reduced by the Accrued Tracking Fee as of the last Index Business Day in the Final Measurement Period, as described under “— Cash Settlement Amount at Maturity.” We refer to this cash payment as the “Cash Settlement Amount.” If the amount so calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment on the Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.”

If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

The Securities may pay a cash coupon during their term.

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each quarterly Coupon Payment Date you will receive an amount in cash equal to the difference between the Reference Distribution Amount, calculated as of the corresponding Coupon Valuation Date, and the Accrued Tracking Fee, calculated as of the corresponding Coupon Valuation Date (the “Coupon Amount”).

To the extent the Reference Distribution Amount on any Coupon Valuation Date is equal to or less than the Accrued Tracking Fee on the corresponding Coupon Valuation Date, there will be no Coupon Amount payment made on that Coupon Payment Date, and an amount equal to the difference between the Accrued Tracking Fee and the Reference Distribution Amount (the “Tracking Fee Shortfall”) will be included in the Accrued Tracking Fee and will reduce the Coupon Amount for the next Coupon Valuation Date. This process will be repeated to the extent necessary until the Reference Distribution Amount for a Coupon Valuation Date is greater than the Accrued Tracking Fee for the corresponding Coupon Valuation Date. The final Coupon Amount will be included in the Cash Settlement Amount.

The “**Coupon Payment Date**” means the 15th Index Business Day following each Coupon Valuation Date. The final Coupon Payment Date will be the Maturity Date, subject to adjustment as described herein.

The “**Coupon Record Date**” means the ninth Index Business Day following each Coupon Valuation Date.

The “**Coupon Ex-Date**,” with respect to a Coupon Amount, means the first Exchange Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the second Exchange Business Day prior to the applicable Coupon Record Date.

The “**Coupon Valuation Date**” means the 30th of March, June, September and December of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date, subject to adjustment as described herein.

The “**Reference Distribution Amount**” means as of any Coupon Valuation Date, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to any Index constituent for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the immediately preceding Coupon Valuation Date to and including such Coupon Valuation Date.

Notwithstanding the foregoing, with respect to cash distributions for an Index constituent which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index constituent fails to pay the distribution to holders of such Index constituent by the scheduled payment date for such distribution, such distribution will be assumed to be zero for the purposes of calculating the applicable Reference Distribution Amount.

The “**Reference Holder**” is, as of any date of determination, a hypothetical holder of a number of units of each Index constituent equal to (i) the published unit weighting of that Index constituent as of that date, as described under “MVIS US Business Development Companies Index — Float Adjustment,” *divided by* (ii) the product of (a) the Divisor as of that date and (b) the Initial Index Level *divided by* 25.

“**record date**” means, with respect to a distribution on an Index constituent, the date on which a holder of the Index constituent must be registered as a unitholder of such Index constituent in order to be entitled to receive such distribution.

“**ex-dividend date**” means, with respect to a distribution on an Index constituent, the first Business Day on which transactions in such Index constituent trade on the Primary Exchange without the right to receive such distribution.

“**Business Day**” means any day that is not a Saturday, a Sunday or a day on which banking institutions in The City of New York, generally, are authorized or obligated by law, regulation or executive order to close.

The “**Annual Tracking Fee**” means, as of any date of determination, an amount per Security equal to the product of (i) 0.85% per annum and (ii) the Current Indicative Value as of the immediately preceding Index Business Day.

The “**Current Indicative Value**,” as determined by the Security Calculation Agent, means, as of any date of determination, an amount per Security equal to the product of (i) the Stated Principal Amount *times* (ii) the Index Performance Ratio (as defined under “— Cash Settlement Amount at Maturity”) as of such date, using the Index Closing Level on such date as the Final Index Level. As of July 30, 2021, the Current Indicative Value was \$19.3744.

The “**Accrued Tracking Fee**” is:

- (1) with respect to the first Coupon Valuation Date, an amount equal to the product of
 - (a) the Annual Tracking Fee calculated as of the first Coupon Valuation Date, and
 - (b) a fraction, the numerator of which is the total number of calendar days from and excluding September 30, 2015 to and including such Coupon Valuation Date, and the denominator of which is 365;and
- (2) with respect to any Coupon Valuation Date other than the first Coupon Valuation Date, an amount equal to
 - (a) the product of
 - (i) the Annual Tracking Fee as of such Coupon Valuation Date, and
 - (i) a fraction, the numerator of which is the total number of calendar days from and excluding the immediately preceding Coupon Valuation Date to and including such Coupon Valuation Date, and the denominator of which is 365, *plus*
 - (b) the Tracking Fee Shortfall as of the immediately preceding Coupon Valuation Date. If there is a Tracking Fee Shortfall on the last Coupon Valuation Date, it will be taken into account in determining the Cash Settlement Amount, as described below.

The Accrued Tracking Fee also takes into account the performance of the Index, as measured by the Index Closing Level.

Cash Settlement Amount at Maturity

For each Security, unless earlier called or redeemed, you will receive at maturity a cash payment equal to

- (a) the product of

- (i) the Stated Principal Amount and
- (ii) the Index Performance Ratio as of the last Index Business Day in the Final Measurement Period, *plus*
- (b) the final Coupon Amount, *minus*
- (c) the Accrued Tracking Fee as of the last Index Business Day in the Final Measurement Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Final Measurement Period, if any.

We refer to this cash payment as the “Cash Settlement Amount.” If the amount so calculated is equal to or less than zero, the payment at maturity will be zero.

You may lose some or all of your investment at maturity. The negative effect of the Accrued Tracking Fee will reduce your final payment. If the increase in the level of the Index (as measured by the Final Index Level, as compared to the Initial Index Level) is insufficient to offset the negative effect of the Accrued Tracking Fee (less any Coupon Amounts, any Stub Reference Distribution Amount and/or Adjusted Coupon Amount, as applicable, you may be entitled to receive) or if the Final Index Level is less than the Initial Index Level, you may lose some or all of your investment at maturity.

The “Stated Principal Amount” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices, which may be significantly higher or lower than the Stated Principal Amount.

The Index Performance Ratio on any Index Business Day is calculated as follows:

$$\frac{\text{Final Index Level}}{\text{Initial Index Level}}$$

The “**Initial Index Level**” is adjusted on the Effective Date to be equal to (a) the Index Closing Level of the Index on the Effective Date *multiplied by* (b) (i) 904.113 (the original Initial Index Level) *divided by* (ii) the Index Closing Level of the Original Index on the Effective Date. The adjusted Initial Index Level is 692.808593.

As determined by the Security Calculation Agent, the “Final Index Level” is the arithmetic mean of the Index Closing Levels measured on each Index Business Day during the Final Measurement Period or the Call Measurement Period, or the Index Closing Level on any Redemption Valuation Date; provided that if the Redemption Valuation Date falls in the Call Measurement Period or the Final Measurement Period, for the purposes of calculating the Index Performance Ratio as of the Redemption Valuation Date, the Final Index Level on any date of determination during the Call Measurement Period or the Final Measurement Period shall equal (a) 1/10 *times* (b) (i) the sum of the Index Closing Levels on each Index Business Day from and including the Call Valuation Date or the Calculation Date, as applicable, to but excluding the date of determination *plus* (ii) the number of Index Business Days from and including the date of determination to and including the last Index Business Day in the Call Measurement Period or the Final Measurement Period, as applicable, *times* the Index Closing Level on the date of determination.

The “**Index Closing Level**” is the closing level of the Index as reported on Bloomberg.

The “**Accrued Tracking Fee**” as of the last Index Business Day in the Final Measurement Period is an amount equal to

- (a) the product of
 - (i) the Annual Tracking Fee calculated as of the last Index Business Day in the Final Measurement
 - (ii) Period and
 - (iii) a fraction, the numerator of which is the total number of calendar days from and excluding the Calculation Date to and including the last Index Business Day in the Final Measurement Period, and the denominator of which is 365, *plus*
- (b) the Tracking Fee Shortfall as of the last Coupon Valuation Date, if any.

The Accrued Tracking Fee also takes into account the performance of the Index, as measured by the Index Closing Level.

The “**Final Measurement Period**” means the ten Index Business Days from and including the Calculation Date, subject to adjustment as described under “— Market Disruption Event.”

The “**Stub Reference Distribution Amount**” means, as of the last Index Business Day in the Final Measurement Period or Call Measurement Period, as applicable, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to any Index constituent, for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the first Index Business Day in the Final Measurement Period or Call Measurement Period, as applicable, to and including the last Index Business Day in the Final Measurement Period or Call Measurement Period, as applicable, provided, that for the purpose of calculating the Stub Reference Distribution Amount, the Reference Holder will be deemed to hold nine-tenths, eight-tenths, seven-tenths, six-tenths, five-tenths, four-tenths, three-tenths, two-tenths and one-tenth of the shares of each Index constituent it would otherwise hold on the second, third, fourth, fifth, sixth, seventh, eighth, ninth and tenth Index Business Day, respectively, in such Final Measurement Period or Call Measurement Period.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is Solactive AG as of market close on July 30, 2021.

The “**Calculation Date**” means April 9, 2041, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

“**Index Business Day**” means any day on which the Primary Exchange and each Related Exchange are scheduled to be open for trading.

“**Exchange Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading and is also a valid settlement date.

“**Business Day**” means any day that is not a Saturday, a Sunday or a day on which banking institutions in The City of New York, generally, are authorized or obligated by law, regulation or executive order to close.

“**Primary Exchange**” means, with respect to each Index constituent or each constituent underlying a successor index, the primary exchange or market of trading such Index constituent or such constituent underlying a successor index.

“**Related Exchange**” means, with respect to each Index constituent or each constituent underlying a successor index, each exchange or quotation system where trading has a material effect (as determined by the Security Calculation Agent) on the overall market for futures or options contracts relating to such Index constituent or such constituent underlying a successor index.

Underlying Index

The return on the Securities is linked to the performance of the MVIS US Business Development Companies Index, the successor index to the Wells Fargo® Business Development Company Index (the “**Original Index**”) effective after market close on the July 30, 2021 (the “**Effective Date**”). On April 26, 2021, the Security Calculation Agent announced that, pursuant to the terms of the Securities, it has determined that the Index is comparable to the Original Index and approved the Index as the successor index for the Securities following the discontinuation of publication of the Original Index. The Index is intended to measure the performance of the largest and most liquid companies which are treated as business development companies and are incorporated in the United States. The “**Index Sponsor**” is MV Index Solutions GmbH.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request on any Business Day during the term of the Securities to have us redeem your Securities (“**Redemption Notice**”) on any Business Day no later than 12:00 noon, New York City time, and a confirmation of redemption (“**Redemption Confirmation**”) by no later than 5:00 p.m., New York City time, on any Business Day, provided that you request that we redeem a minimum of 50,000 Securities. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities; however, there can be no assurance that they can or will do so. We may from time to time in our sole discretion reduce, in part or in whole, the minimum redemption amount of 50,000 Securities. Any such reduction will be applied on a consistent basis for all holders of the Securities at the time the reduction becomes effective.

The Securities will be redeemed and the holders will receive payment for their Securities on the third Business Day following the applicable Redemption Valuation Date (the “Redemption Date”). The final Redemption Date will be April 18, 2041; provided that if a call notice has been issued, the last Redemption Valuation Date is the fifth Index Business Day prior to the Call Settlement Date in connection with the call notice. (See “Specific Terms of the Securities — UBS’s Call Right”). If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index constituents, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

For any applicable redemption request, the “Redemption Valuation Date” will be the first Index Business Day following the date that the applicable Redemption Notice and Redemption Confirmation are delivered. You may request that UBS AG accelerate the Redemption Valuation Date to the date on which you deliver the applicable Redemption Notice and Redemption Confirmation instead of the Index Business Day following such date. If UBS AG approves such request, in its sole discretion on a case-by-case basis, the Redemption Valuation Date for such redemption shall be the date on which you deliver the applicable Redemption Notice and Redemption Confirmation instead of the Index Business Day following such date. You should not assume that you will be entitled to any such acceleration. UBS AG will be under no obligation to approve any such request, or to make any announcement regarding any decision by it to approve any such request.

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

- (a) the product of
 - (i) the Stated Principal Amount and
 - (ii) the Index Performance Ratio as of the Redemption Valuation Date, *plus*
- (b) the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Redemption Valuation Date if on the Redemption Valuation Date the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *plus*
- (c) the Adjusted Coupon Amount, if any, *minus*
- (d) the Adjusted Tracking Fee Shortfall, if any, as of the Redemption Valuation Date, *minus*
- (e) the Redemption Fee Amount.

We refer to this cash payment as the “**Redemption Amount.**”

For purposes of calculating the Redemption Amount, either the Adjusted Coupon Amount will be included or the Adjusted Tracking Fee Shortfall will be subtracted, but not both.

If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero.

We will inform you of such Redemption Amount on the first Business Day following the applicable Redemption Valuation Date.

You may lose some or all of your investment upon early redemption. The combined negative effect of the Accrued Tracking Fee and the Redemption Fee Amount will reduce your final Redemption Amount. If the level of the Index (as measured by the Final Index Level, as compared to the Initial Index Level) does not increase by an amount sufficient to offset the combined negative effect of the Accrued Tracking Fee and the Redemption Fee Amount (less any Coupon Amounts, any Stub Reference Distribution Amount, as applicable, and/or any Adjusted Coupon Amount you may be entitled to receive) or if the Final Index Level is less than the Initial Index Level, you may lose some or all of your investment upon early redemption.

The “Adjusted Coupon Amount,” with respect to any Redemption Valuation Date, is an amount in cash equal to the difference between the Adjusted Reference Distribution Amount, calculated as of the applicable Redemption Valuation Date, and the Adjusted Tracking Fee, calculated as of such Redemption Valuation Date, to the extent that the Adjusted Reference Distribution Amount, calculated as of such Redemption Valuation Date, is greater than or equal to the Adjusted Tracking Fee, calculated as of such Redemption Valuation Date.

The “Adjusted Reference Distribution Amount,” as of any Redemption Valuation Date, is an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to an Index constituent, for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the immediately preceding Coupon Valuation Date to and including such Redemption Valuation Date.

The “**Adjusted Tracking Fee**” is, as of the Call Valuation Date or any Redemption Valuation Date, as applicable, an amount equal to:

- (a) the Tracking Fee Shortfall as of the immediately preceding Coupon Valuation Date, *plus*
- (b) the product of

- (i) the Annual Tracking Fee as of such Redemption Valuation Date or Call Valuation Date and
- (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the immediately preceding Coupon Valuation Date to and including such Redemption Valuation Date or Call Valuation Date, and the denominator of which is 365.

The “**Adjusted Tracking Fee Shortfall**,” as of any Redemption Valuation Date, is the difference between the Adjusted Tracking Fee and the Adjusted Reference Distribution Amount, to the extent that the Adjusted Reference Distribution Amount, calculated as of such Redemption Valuation Date, is less than the Adjusted Tracking Fee, calculated as of such Redemption Valuation Date.

The “**Redemption Fee Amount**” means, as of any date of determination, an amount per Security equal to the product of (i) 0.125% and (ii) the Current Indicative Value as of the immediately preceding Index Business Day.

Some of the defined terms used in this section have different applications when used in determining the Call Settlement Amount. For the definitions of the terms relevant to a call, please refer to “— UBS’s Call Right”.

We discuss redemption in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Redemption and Repayment.”

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption to UBS via email no later than 12:00 noon, New York City time, on the Business Day immediately preceding the applicable Redemption Valuation Date. If we receive your notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption to us via facsimile in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m., New York City time, on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 12:00 noon, New York City time, or your confirmation of redemption after 5:00 p.m., New York City time, on the Business Day prior to the applicable Redemption Valuation Date, your notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

UBS’s Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than 18 calendar days’ prior notice to the holders of the Securities, such redemption to occur on any Exchange Business Day (or if such day is not an Exchange Business Day, the next Exchange Business Day) that we may specify through and including the Maturity Date (the “Call Settlement Date”). Upon early redemption in the event we exercise this right, you will receive a cash payment equal to:

- (a) the product of
 - (i) the Stated Principal Amount and (ii) the Index Performance Ratio as of the last Index Business Day in the Call Measurement Period, *plus*
- (b) the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Call Valuation Date if on the last Index Business Day in the Call Measurement Period the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *plus*
- (c) the Adjusted Coupon Amount, if any, *minus*
- (d) the Accrued Tracking Fee as of the last Index Business Day in the Call Measurement Period, *plus*

(e) the Stub Reference Distribution Amount as of the last Index Business Day in the Call Measurement Period, if any.

We refer to this cash payment as the “Call Settlement Amount.”

If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero.

If UBS issues a call notice on any calendar day, the “Call Valuation Date” will be the fifth Business Day following the calendar day on which the call notice is issued.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Business Day following the last Index Business Day in the Call Measurement Period (the “Call Settlement Date”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index constituents, such Call Valuation Date may be postponed as described under “— Market Disruption Event.”

The “Call Measurement Period” means the ten Index Business Days from and including the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”

You may lose some or all of your investment upon a call. The negative effect of the Accrued Tracking Fee will reduce your final payment. If the level of the Index (as measured by the Final Index Level, as compared to the Initial Index Level) is insufficient to offset the negative effect of the Accrued Tracking Fee (less any Coupon Amounts, any Stub Reference Distribution Amount and/or any Adjusted Coupon Amount, you may be entitled to receive) or if the Final Index Level is less than the Initial Index Level, you may lose some or all of your investment upon a call.

The “**Accrued Tracking Fee**” as of the last Index Business Day in the Call Measurement Period is an amount equal to:

- (a) the product of
 - (i) the Annual Tracking Fee calculated as of the last Index Business Day in the Call Measurement Period, and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the Call Valuation Date to and including the last Index Business Day in the Call Measurement Period, and the denominator of which is 365, *plus*
- (b) the Adjusted Tracking Fee Shortfall (as defined below), if any.

The Accrued Tracking Fee also takes into account the performance of the Index, as measured by the Index Closing Level.

The “Adjusted Coupon Amount,” with respect to the Call Valuation Date, is an amount in cash equal to the difference between the Adjusted Reference Distribution Amount (as defined below), calculated as of the Call Valuation Date, and the Adjusted Tracking Fee (as defined below), calculated as of the Call Valuation Date, to the extent that the Adjusted Reference Distribution Amount, calculated as of the Call Valuation Date, is greater than or equal to the Adjusted Tracking Fee, calculated as of the Call Valuation Date.

The “Adjusted Reference Distribution Amount,” as of the Call Valuation Date, is an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to an Index constituent, for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the immediately preceding Coupon Valuation Date to and including the Call Valuation Date.

The “**Adjusted Tracking Fee**”, as of the Call Valuation Date, is an amount equal to

- (a) the Tracking Fee Shortfall as of the immediately preceding Coupon Valuation Date *plus*
- (b) the product of
 - (i) the Annual Tracking Fee as of such Call Valuation Date and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the immediately preceding Coupon Valuation Date to and including such Call Valuation Date, and the denominator of which is 365.

The “**Adjusted Tracking Fee Shortfall**,” as of the Call Valuation Date, is the difference between the Adjusted Tracking Fee and the Adjusted Reference Distribution Amount, to the extent that the Adjusted Reference Distribution Amount, calculated as of the Call Valuation Date, is less than the Adjusted Tracking Fee, calculated as of the Call Valuation Date.

Some of the defined terms used in this section have different applications when used in determining the Redemption Amount. For the definition of the terms relevant to early redemption, please refer to “— Early Redemption at the Option of the Holders”.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will determine, among other things, the Current Indicative Value, the Final Index Level, the Index Performance Ratio, the Coupon Amount, the Adjusted Coupon Amount, if any, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Adjusted Reference Distribution Amount, the Accrued Tracking Fee (including the Annual Tracking Fee, any Tracking Fee Shortfall and any Adjusted Tracking Fee Shortfall), the Adjusted Tracking Fee, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Final Measurement Period, the Coupon Payment Dates, the Coupon Valuation Dates, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable, the Call Settlement Date, the Call Valuation Date, the Call Measurement Period and the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, and whether any day is a Business Day, Index Business Day or Exchange Business Day. The Security Calculation Agent will also be responsible for determining whether a Market Disruption Event has occurred, whether the Index has been discontinued and whether there has been a material change in the Index. All determinations made by the Security Calculation Agent will be at the sole discretion of the Security Calculation Agent and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different Security Calculation Agent from time to time without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or call, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 noon, New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Adjusted Coupon Amount, if any, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Adjusted Reference Distribution Amount, the Accrued Tracking Fee (including the Annual Tracking Fee, any Tracking Fee Shortfall and any Adjusted Tracking Fee Shortfall), the Adjusted Tracking Fee, the Redemption Amount and Redemption Fee Amount, if any, per Security, the Call Settlement Amount, if any, per Security, and the Cash Settlement Amount, if any, per Security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid on the aggregate stated principal amount of Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on an Averaging Date (as defined below) or on a Redemption Valuation Date, the Index Closing Level for such Averaging Date or Redemption Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing (the “Deferred Averaging Date”) with respect to the Index irrespective of whether pursuant to such determination, the Deferred Averaging Date would fall on a date originally scheduled to be an Averaging Date. If the postponement described in the preceding sentence results in the Index Closing Level being calculated on a day originally scheduled to be an Averaging Date, for purposes of determining the Index Closing Level on the Index Business Days during the Final Measurement Period or the Call Measurement Period, or on the Redemption Valuation Date, as applicable, the Security Calculation Agent or one of its affiliates, as the case may be, will apply the Index Closing Level for such Deferred Averaging Date (i) on the date(s) of the original Market Disruption Event and (ii) such Averaging Date. For example, if the Final Measurement Period or Call Measurement Period, as applicable, for purposes of calculating the Cash Settlement Amount or Call Settlement Amount, respectively, is based on the arithmetic mean of the Index Closing Levels on October 3, October 4, October 5, October 6, October 7, October 10, October 11, October 12, October 13 and October 14, and there is a Market Disruption Event with respect to the Index on October 3, but no other Market Disruption Event during the Final Measurement Period or the Call Measurement Period, as applicable, then the Index Closing Level on October 4 will be used twice to calculate the Cash Settlement Amount or Call Settlement Amount, respectively, and such Cash Settlement Amount or Call Settlement Amount, as applicable, will be determined based on the arithmetic mean of the Index Closing Levels on October 4, October 4, October 5, October 6, October 7, October 10, October 11, October 12, October 13 and October 14.

If the Redemption Valuation Date for purposes of calculating a Redemption Amount is based on the Index Closing Level on October 3, 2016 and there is a Market Disruption Event with respect to the Index on October 3, 2016, then the Index Closing Level on October 4, 2016 will be used to calculate the Redemption Amount.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the final Averaging Date or the Redemption Valuation Date, as applicable, occurring more than three Index Business Days following the day originally scheduled to be such final Averaging Date or Redemption Valuation Date. If the third Index Business Day following the date originally scheduled to be the final Averaging Date, or the Redemption Valuation Date, as applicable, is not an Index Business Day or a Market Disruption Event has occurred or is continuing with respect to the Index on such third Index Business Day, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such third Index Business Day but for such Market Disruption Event.

An “Averaging Date” means each of the Index Business Days during the Final Measurement Period or the Call Measurement Period, as applicable, subject to adjustment as described herein.

Notwithstanding the occurrence of one or more of the events below, which may, in the Security Calculation Agent’s discretion, constitute a Market Disruption Event with respect to the Index, the Security Calculation Agent in its discretion may waive its right to postpone the Index Closing Level if it determines that one or more of the below events has not and is not likely to materially impair its ability to determine the Index Closing Level on such date.

Any of the following will be a Market Disruption Event with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index constituents for more than two hours or during the one-half hour before the close of trading in the applicable market or markets;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index constituent equity interests in the primary market or markets for those contracts for more than two hours of trading or during the one-half hour before the close of trading in that market;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging.”

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index constituent equity interests.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index constituent equity interests are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under “Description of Debt Securities We May Offer — Optional Tax Redemption” in “Medium-Term Notes, Series B” above. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the four Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the fourth Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars for the principal of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuation of the Index; Alteration of Method of Calculation

If the Index Sponsor or the Index Calculation Agent discontinues publication of or otherwise fails to publish the Index, and the Index Sponsor, the Index Calculation Agent or another entity publishes a successor or substitute index that the Security Calculation Agent determines to be comparable to the discontinued Index (such index being referred to herein as a “**successor index**”), then the Index Closing Level for such successor index will be determined by the Security Calculation Agent by reference to the successor index on the dates and at the times as of which the Index Closing Levels for such successor index are to be determined.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor or the Index Calculation Agent discontinues publication of the Index prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during the Final Measurement Period or Call Measurement Period, or on the Redemption Valuation Date, as applicable, or any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on, the Calculation Date or any Index Business Day during the Final Measurement Period or Call Measurement Period, or on the Redemption Valuation Date, as applicable, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the closing level and published share weighting of each Index constituent included in the Index or successor index, as applicable, immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions as described under “MVIS US Business Development Companies Index — Corporate Events.”

In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index or a successor index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at a level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the levels for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Current Indicative Value, the Final Index Level, the Index Performance Ratio, the Coupon Amount, the Adjusted Coupon Amount, if any, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Adjusted Reference Distribution Amount, the Accrued Tracking Fee (including the Annual Tracking Fee, any Tracking Fee Shortfall and any Adjusted Tracking Fee Shortfall), the Adjusted Tracking Fee, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon redemption, if applicable, or the Call Settlement Amount that we will pay you on the Call Settlement Date, if applicable, based on the relevant index levels calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (e.g., due to a split in the Index), which, in turn, causes the level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at a level for the Index or such successor index as if it had not been modified (e.g., as if such split had not occurred).

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or call, or upon early redemption will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in “Medium-Term Notes, Series B”.

Modified Business Day

As described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in “Medium-Term Notes, Series B”, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Cash Settlement Amount at Maturity,” “— UBS’s Call Right” and “— Early Redemption at the Option of the Holders” above.

Defeasance

Neither full defeasance nor covenant defeasance, as described in “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Defeasance and Covenant Defeasance,” will apply to the Securities.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate stated principal amount specified on the cover of this prospectus supplement. We may issue additional Securities in amounts that exceed such amount at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B”.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate stated principal amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

8. ETRACS Alerian MLP Index ETN Series B due July 18, 2042

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015, between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or call, or upon early redemption. Instead, at maturity, you will receive a cash payment the amount of which will vary depending on the performance of the VWAP Level calculated in accordance with the formula set forth below and will be reduced by the Accrued Tracking Fee as of the last Index Business Day in the Final Measurement Period. We refer to this cash payment as the “Cash Settlement Amount.” If the amount so calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment on the Redemption Date equal to the Redemption Amount as described below under “— Early Redemption at the Option of the Holders.”

The Securities may pay a cash coupon during their term.

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the excess, if any, of the Reference Distribution Amount, calculated as of the corresponding Coupon Valuation Date, over the Accrued Tracking Fee, calculated as of the corresponding Coupon Valuation Date (the “Coupon Amount”).

To the extent the Reference Distribution Amount on any Coupon Valuation Date is equal to or less than the Accrued Tracking Fee on the corresponding Coupon Valuation Date, there will be no Coupon Amount payment made on the corresponding Coupon Payment Date, and an amount equal to the difference between the Accrued Tracking Fee and the Reference Distribution Amount (the “Tracking Fee Shortfall”) will be included in the Accrued Tracking Fee for the next Coupon Valuation Date. This process will be repeated to the extent necessary until the Reference Distribution Amount for a Coupon Valuation Date is greater than the Accrued Tracking Fee for the corresponding Coupon Valuation Date. The final Coupon Amount will be included in the Cash Settlement Amount.

The “Coupon Payment Date” means the fifteenth (15th) Index Business Day following each Coupon Valuation Date, provided that the final Coupon Payment Date will be the Maturity Date, subject to adjustment as described herein. The first Coupon Payment Date will be December 8, 2015.

The “Coupon Record Date” means the ninth (9th) Index Business Day following each Coupon Valuation Date.

The “Coupon Ex-Date,” with respect to a Coupon Amount, means the first (1st) Exchange Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the second (2nd) Exchange Business Day prior to the applicable Coupon Record Date.

The “Coupon Valuation Date” means the fifteenth (15th) of February, May, August and November of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date, subject to adjustment as described herein. The first Coupon Valuation Date will be November 16, 2015.

The “Reference Distribution Amount” means (i) as of the first Coupon Valuation Date, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to any Index constituent, for those cash distributions whose “ex-dividend date” occurs during the period from and excluding August 17, 2015 to and including the first Coupon Valuation Date; and (ii) as of any other Coupon Valuation Date, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to any Index constituent for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the immediately preceding Coupon Valuation Date to and including such Coupon Valuation Date.

Notwithstanding the foregoing, with respect to cash distributions for an Index constituent which are scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index constituent fails to pay the distribution to holders of such Index constituent by the scheduled payment date for such distribution, such distribution will be assumed to be zero for the purposes of calculating the applicable Reference Distribution Amount.

The “Reference Holder” is, as of any date of determination, a hypothetical holder of a number of units of each Index constituent equal to (i) the published unit weighting of that Index constituent as of that date, *divided by* (ii) the product of (a) the Index Divisor as of that date, and (b) the Initial VWAP Level *divided by* 25.

“record date” means, with respect to a distribution on an Index constituent, the date on which a holder of the Index constituent must be registered as a unitholder of such Index constituent in order to be entitled to receive such distribution.

“ex-dividend date” means, with respect to a distribution on an Index constituent, the first Business Day on which transactions in such Index constituent trade on the Primary Exchange without the right to receive such distribution.

The “Quarterly Tracking Fee” means, as of any date of determination, an amount per Security equal to the product of (i) 0.20% (equivalent to 0.80% per annum) and (ii) the Current Indicative Value as of the immediately preceding Index Business Day.

The “Current Indicative Value,” as determined by the Security Calculation Agent, means, as of any date of determination, an amount per Security equal to the product of (i) the Stated Principal Amount *multiplied by* (ii) a fraction, the numerator of which is equal to the VWAP Level (as defined under “— Cash Settlement Amount at Maturity”) as of such date and the denominator of which is equal to the Initial VWAP Level. As of October 7, 2015, the Current Indicative Value was 21.4587.

The “Accrued Tracking Fee” is:

- (1) with respect to the first Coupon Valuation Date, an amount equal to the Quarterly Tracking Fee calculated as of the first Coupon Valuation Date (for the avoidance of doubt, the calculation of the Accrued Tracking Fee with respect to the first Coupon Valuation Date will be for a full quarter beginning from and excluding August 17, 2015);
- (2) with respect to any Coupon Valuation Date, other than the first and last Coupon Valuation Dates, an amount equal to the Quarterly Tracking Fee as of such Coupon Valuation Date, *plus* the Tracking Fee Shortfall as of the immediately preceding Coupon Valuation Date, if any; and
- (3) with respect to the last Coupon Valuation Date, an amount equal to
 - (a) the product of
 - (i) the Quarterly Tracking Fee as of such Coupon Valuation Date and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the immediately preceding Coupon Valuation Date to and including such Coupon Valuation Date, and the denominator of which is 90, *plus*
 - (b) the Tracking Fee Shortfall as of the immediately preceding Coupon Valuation Date. If there is a Tracking Fee Shortfall on the last Coupon Valuation Date, it will be taken into account in determining the Cash Settlement Amount, as described below.

The calculation of the Accrued Tracking Fee also takes into account the performance of the Index, as measured by the VWAP Level.

Cash Settlement Amount at Maturity

The “Maturity Date” is July 18, 2042, which will be the third Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called or redeemed, you will receive at maturity a cash payment equal to

- (a) the product of
 - (i) the Stated Principal Amount and
 - (ii) the Index Performance Ratio as of the last Index Business Day in the Final Measurement Period, *plus*
- (b) the final Coupon Amount, *minus*
- (c) the Accrued Tracking Fee as of the last Index Business Day in the Final Measurement Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Final Measurement Period, if any.

We refer to this cash payment as the “Cash Settlement Amount.” If the amount calculated above is equal to or less than zero, the payment at maturity will be zero.

You may lose some or all of your investment at maturity. The negative effect of the Accrued Tracking Fee will reduce your final payment. If the level of the Index increases (as measured by the Final VWAP Level, as compared to the Initial VWAP Level), such increase may be insufficient to offset the negative effect of the Accrued Tracking Fee (less any Coupon Amounts, Stub Reference Distribution Amount and/ or Adjusted Coupon Amount, as applicable, you may be entitled to receive), or if the Final VWAP Level is less than the Initial VWAP Level, you may lose some or all of your investment at maturity.

The “Stated Principal Amount” of each Security is \$25.00.

The “Index Performance Ratio” on any Index Business Day is calculated as follows:

$$\frac{\text{Final VWAP Level}}{\text{Initial VWAP Level}}$$

The “VWAP” with respect to each Index constituent, as of any date of determination, is the volume-weighted average price of one unit of such Index constituent as determined by the VWAP Calculation Agent based on the Primary Exchange for each Index constituent. For information about how the VWAP will be calculated to the extent a Disrupted Day exists with respect to an Index constituent, please see “— Market Disruption Event.”

The “Initial VWAP Level” is 396.997, the VWAP Level on July 17, 2012, as determined by the VWAP Calculation Agent. See “— VWAP Calculation Agent” below.

The “Final VWAP Level,” as determined by the VWAP Calculation Agent, will be the arithmetic mean of the VWAP Levels measured on each Index Business Day during the Final Measurement Period or the Call Measurement Period or on any applicable Redemption Measurement Date, as applicable.

The “VWAP Level,” as determined by the VWAP Calculation Agent as of any Index Business Day, is equal to (1) the sum of the products of (i) the VWAP of each Index constituent as of such date and (ii) the published unit weighting of that Index constituent as of such date *divided by* (2) the Index Divisor as of such date, or expressed as a formula, as follows:

$$\text{VWAP Level} = \frac{\sum_{i=1}^n (VWAP_{i,t} * w_{i,t})}{\text{Index Divisor}_t}$$

where:

n is the number of Index constituents;

$VWAP_{i,t}$ is the VWAP of Index constituent i as of Index Business Day t ;

$w_{i,t}$ is the published unit weighting of Index constituent i as of Index Business Day t ; and

Index Divisor_t is the Index Divisor as of Index Business Day t .

As of October 7, 2015, the VWAP Level was 340.761.

The “Index Divisor,” as of any date of determination, is the divisor used by the Index Calculation Agent to calculate the level of the Index, as further described under “Alerian MLP Index — Index Equations”.

The “Accrued Tracking Fee” as of the last Index Business Day in the Final Measurement Period is an amount equal to

- (a) the product of
 - (i) the Quarterly Tracking Fee calculated as of the last Index Business Day in the Final Measurement Period and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the Calculation Date to and including the last Index Business Day in the Final Measurement Period, and the denominator of which is 90, *plus*
- (b) the Tracking Fee Shortfall as of the last Coupon Valuation Date, if any.

The Accrued Tracking Fee also takes into account the performance of the Index, as measured by the VWAP Level.

The “Final Measurement Period” means the five (5) Index Business Days from and including the Calculation Date, subject to adjustment as described under “— Market Disruption Event.”

The “Stub Reference Distribution Amount” means, as of the last Index Business Day in the Final Measurement Period or the Call Measurement Period, as applicable, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to any Index constituent, for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the first Index Business Day in the Final Measurement Period or the Call Measurement Period, as applicable, to and including the last Index Business Day in the Final Measurement Period or the Call Measurement Period, as applicable, provided, that for the purpose of calculating the Stub Reference Distribution Amount, the Reference Holder will be deemed to hold 4/5 ths, 3/5 ths, 2/5 ths and 1/5 th of the shares of each Index constituent it would otherwise hold on the second, third, fourth and fifth Index Business Day, respectively, in such Final Measurement Period or the Call Measurement Period.

The “Index Calculation Agent” means the entity that calculates and publishes the level of the Index, which is currently S&P.

The “Calculation Date” means July 9, 2042, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

“Index Business Day” means any day on which the Primary Exchange and each Related Exchange are scheduled to be open for trading.

“Exchange Business Day” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“Primary Exchange” means, with respect to each Index constituent or each constituent underlying a successor index, the primary exchange or market of trading such Index constituent or such constituent underlying a successor index.

“Related Exchange” means, with respect to each Index constituent or each constituent underlying a successor index, each exchange or quotation system where trading has a material effect (as determined by the Security Calculation Agent) on the overall market for futures or options contracts relating to such Index constituent or such constituent underlying a successor index.

Underlying Index

The Alerian MLP Index measures the composite performance of energy master limited partnerships (“MLPs”), and is calculated by S&P Dow Jones Indices using a float-adjusted, capitalization-weighted methodology. We refer to the MLPs included in the Index as the “Index constituents.” The Index constituents earn the majority of their cash flow from qualifying activities involving energy commodities, which include pipeline transportation, gathering and processing, storage, production and mining, marketing, marine transportation, services, catalytic conversion, mineral interest, refining, regasification and other related activities.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Business Day no later than 12:00 noon, New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on the applicable Redemption Notice Date, provided that you request that we redeem a minimum of 50,000 Securities. For any applicable redemption request, the “Redemption Notice Date” will be the date that the applicable Redemption Notice and Redemption Confirmation are delivered. If such Redemption Notice or Redemption Confirmation is delivered on a day that is not an Index Business Day, then the Redemption Notice Date shall be the next Index Business Day. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities. We may from time to time in our sole discretion reduce, in part or in whole, the minimum redemption amount of 50,000 Securities. Any such reduction will be applied on a consistent basis for all holders of the Securities at the time the reduction becomes effective.

The Securities will be redeemed and the holders will receive payment for their Securities on the third Business Day following the applicable Redemption Measurement Date (the “Redemption Date”). The first Redemption Date will be October 15, 2015. If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Measurement Date with respect to any of the Index constituents, such Redemption Measurement Date may be postponed as described under “— Market Disruption Event.”

The applicable “Redemption Measurement Date” means the Index Business Day following the applicable Redemption Notice Date, subject to adjustments as described under “— Market Disruption Event.”

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to

- (a) the product of
 - (i) the Stated Principal Amount and
 - (ii) the Index Performance Ratio as of the Redemption Measurement Date, *plus*
- (b) the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Redemption Measurement Date if on the Redemption Measurement Date the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *plus*
- (c) the Adjusted Coupon Amount, if any, *minus*
- (d) the Adjusted Tracking Fee Shortfall, if any, *minus*
- (e) the Redemption Fee Amount.

We refer to this cash payment as the “Redemption Amount.” We have determined to offer all holders of the Securities the option, upon early redemption and solely for purposes of determining the Redemption Amount, but not for any other purpose, to elect that the Index Performance Ratio (which is used to calculate the Redemption Amount) be calculated using the Index Closing Level on the Redemption Measurement Date instead of the Final VWAP Level. If the redeeming holder so elects, the Index Performance Ratio will be calculated, for purposes of determining the Redemption Amount, as:

$$\frac{\text{Index Closing Level on the Redemption Measurement Date}}{\text{Initial VWAP Level}}$$

The “Index Closing Level” is the closing level of the Index as reported on the NYSE and Bloomberg; provided, however, that if the closing level of the Index as reported on the NYSE (or any successor) differs from the closing level of the Index as reported on Bloomberg (or any successor), then the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent.

If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero.

We will inform you of such Redemption Amount on the first Business Day following the applicable Redemption Measurement Date.

You may lose some or all of your investment upon early redemption. The combined negative effect of the Accrued Tracking Fee and the Redemption Fee Amount will reduce your final Redemption Amount. If the level of the Index (as measured by the Final VWAP Level) does not increase as compared to the Initial VWAP Level by an amount sufficient to offset the combined negative effect of the Accrued Tracking Fee and the Redemption Fee Amount (less any Coupon Amounts, any Stub Reference Distribution Amount, as applicable, and/or any Adjusted Coupon Amount you may be entitled to receive), you may lose some or all of your investment upon early redemption.

The “Adjusted Coupon Amount,” with respect to any Redemption Measurement Date, is an amount in cash equal to the difference between the Adjusted Reference Distribution Amount, calculated as of such Redemption Measurement Date, and the Adjusted Tracking Fee, calculated as of such Redemption Measurement Date. To the extent the Adjusted Reference Distribution Amount is less than the Adjusted Tracking Fee, the Redemption Amount will not include an Adjusted Coupon Amount, and the Adjusted Tracking Fee Shortfall will be included in the calculation of Redemption Amount.

The “Adjusted Reference Distribution Amount,” as of any Redemption Measurement Date, is an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to an Index constituent, for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the immediately preceding Coupon Valuation Date (or if the Redemption Measurement Date occurs prior to the first Coupon Valuation Date, the period from and excluding August 17, 2015) to and including such Redemption Measurement Date.

The “Adjusted Tracking Fee” is:

- (1) as of any Redemption Measurement Date occurring prior to the first Coupon Valuation Date, an amount equal to the product of
 - (i) the Quarterly Tracking Fee as of such Redemption Measurement Date and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding August 17, 2015 to and including such Redemption Measurement Date, and the denominator of which is 90; and
- (2) as of any Redemption Measurement Date occurring on or after the first Coupon Valuation Date, an amount equal to
 - (a) the Tracking Fee Shortfall as of the immediately preceding Coupon Valuation Date *plus*
 - (b) the product of
 - (i) the Quarterly Tracking Fee as of such Redemption Measurement Date and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the immediately preceding Coupon Valuation Date to and including such Redemption Measurement Date, and the denominator of which is 90.

The “Adjusted Tracking Fee Shortfall,” as of any Redemption Measurement Date, is the difference between the Adjusted Tracking Fee and the Adjusted Reference Distribution Amount, to the extent that the Adjusted Reference Distribution Amount, calculated as of such Redemption Measurement Date, is less than the Adjusted Tracking Fee, calculated as of such Redemption Measurement Date.

The “Redemption Fee Amount” means an amount equal to 0.125% of the Current Indicative Value.

Some of the defined terms used in this section have different applications when used in determining the Call Settlement Amount. For the definitions of the terms relevant to a call, please refer to “— UBS Call Right.”

We discuss redemption in “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Redemption and Repayment”.

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the repurchase feature in this manner.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption to UBS via e-mail no later than 12:00 noon, New York City time, on the applicable Redemption Notice Date. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “Redemption Confirmation,” to us via facsimile in the specified form by 5:00 p.m., New York City time on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Measurement Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m., New York City time, on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 12:00 noon, New York City time, or your confirmation of redemption after 5:00 p.m., New York City time, on the applicable Redemption Notice Date, your notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

UBS Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen calendar days’ prior notice to the holders of the Securities, such redemption to occur on any Business Day that we may specify on or after October 17, 2016 through and including the Maturity Date (the “Call Settlement Date”). Upon early redemption in the event we exercise this right, you will receive a cash payment equal to

- (a) the product of
 - (i) the Stated Principal Amount and
 - (ii) the Index Performance Ratio as of the last Index Business Day in the Call Measurement Period, *plus*
- (b) the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Call Valuation Date if on the last Index Business Day in the Call Measurement Period the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *plus*
- (c) the Adjusted Coupon Amount, if any, *minus*
- (d) the Accrued Tracking Fee as of the last Index Business Day in the Call Measurement Period, *plus*
- (e) the Stub Reference Distribution Amount as of the last Index Business Day in the Call Measurement Period, if any.

We refer to this cash payment as the “Call Settlement Amount.”

If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero.

If UBS issues a call notice on any calendar day, the “Call Valuation Date” will be the last Business Day of the week in which the call notice is issued, generally Friday, subject to a minimum five (5) calendar day period commencing on the date of the issuance of the call notice and ending on the related Call Valuation Date. If UBS issues a call notice on a Friday, the related Call Valuation Date will fall on the following Friday. The Call Settlement Date will be the third Business Day following the last Index Business Day in the Call Measurement Period.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Business Day following the last Index Business Day in the Call Measurement Period (the “Call Settlement Date”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index constituents, such Call Valuation Date may be postponed as described under “— Market Disruption Event.”

The “Call Measurement Period” means the five (5) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”

You may lose some or all of your investment upon a call. The negative effect of the Accrued Tracking Fee will reduce your final payment. If the increase in the Final VWAP Level, as compared to the Initial VWAP Level, is insufficient to offset the negative effect of the Accrued Tracking Fee (less any Coupon Amounts, any Stub Reference Distribution Amount and/or any Adjusted Coupon Amount), or if the Final VWAP Level is less than the Initial VWAP Level, you may lose some or all of your investment upon a call.

The Accrued Tracking Fee as of the last Index Business Day in the Call Measurement Period is an amount equal to

- (a) the product of
 - (i) the Quarterly Tracking Fee calculated as of the last Index Business Day in such Call Measurement Period, and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the Call Valuation Date to and including the last Index Business Day in such Call Measurement Period, and the denominator of which is 90, *plus*
- (b) the Adjusted Tracking Fee Shortfall (as defined below), if any.

The Accrued Tracking Fee also takes into account the performance of the Index, as measured by the VWAP Level.

The “Adjusted Coupon Amount,” with respect to the Call Valuation Date, is an amount in cash equal to the difference between the Adjusted Reference Distribution Amount (as defined below), calculated as of the Call Valuation Date, and the Adjusted Tracking Fee (as defined in the preceding paragraph), calculated as of such Call Valuation Date. To the extent the Adjusted Reference Distribution Amount is less than the Adjusted Tracking Fee, the Call Settlement Amount will not include an Adjusted Coupon Amount, and the Adjusted Tracking Fee Shortfall (as defined below) will be included in the calculation of the Accrued Tracking Fee as of the last Index Business Day in the Call Measurement Period.

The “Adjusted Reference Distribution Amount,” as of the Call Valuation Date, is an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to an Index constituent, for those cash distributions whose “ex-dividend date” occurs during the period from and excluding the immediately preceding Coupon Valuation Date to and including the Call Valuation Date.

The “Adjusted Tracking Fee” is:

as of the Call Valuation Date, an amount equal to

- (a) the Tracking Fee Shortfall as of the immediately preceding Coupon Valuation Date, *plus*
- (b) the product of
 - (i) the Quarterly Tracking Fee as of such Call Valuation Date and
 - (ii) a fraction, the numerator of which is the total number of calendar days from and excluding the immediately preceding Coupon Valuation Date to and including such Call Valuation Date, and the denominator of which is 90.

The “Adjusted Tracking Fee Shortfall,” as of the Call Valuation Date, is the difference between the Adjusted Tracking Fee and the Adjusted Reference Distribution Amount, to the extent that the Adjusted Reference Distribution Amount, calculated as of such Call Valuation Date, is less than the Adjusted Tracking Fee, calculated as of such Call Valuation Date.

Some of the defined terms used in this section have different applications when used in determining the Redemption Amount. For the definition of the terms relevant to early redemption, please refer to “— Early Redemption at the Option of the Holders”.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will determine, among other things, the Current Indicative Value, Index Performance Ratio, the Coupon Amount, the Adjusted Coupon Amount, if any, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Adjusted Reference Distribution Amount, the Accrued Tracking Fee (including the Quarterly Tracking Fee, any Tracking Fee Shortfall and any Adjusted Tracking Fee Shortfall), the Adjusted Tracking Fee, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Final Measurement Period, the Coupon Payment Dates, the Coupon Valuation Dates, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable, the Call Settlement Date, the Call Valuation Date, the Call Measurement Period and the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, and whether any day is a Business Day, Exchange Business Day or Index Business Day. The Security Calculation Agent will also be responsible for determining whether a Market Disruption Event has occurred, whether the Index has been discontinued and whether there has been a material change in the Index. All determinations made by the Security Calculation Agent will be at the sole discretion of the Security Calculation Agent and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. The holder of the Securities shall not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or call, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 p.m., New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Adjusted Coupon Amount, if any, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Adjusted Reference Distribution Amount, the Accrued Tracking Fee (including the Quarterly Tracking Fee, any Tracking Fee Shortfall and any Adjusted Tracking Fee Shortfall), the Adjusted Tracking Fee, the Redemption Amount and Redemption Fee Amount, if any, per security, the Call Settlement Amount, if any, per security, and the Cash Settlement Amount, if any, per security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid on the aggregate principal amount of Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

VWAP Calculation Agent

The NYSE will on each day that is not a Disrupted Day (as defined below) act as the VWAP Calculation Agent. The VWAP Calculation Agent will determine the VWAP of any Index constituent, the VWAP Level and the Final VWAP Level on any Index Business Day on which such VWAP, VWAP Level and Final VWAP Level are to be determined during the term of the Securities. The VWAP Calculation Agent determined the Initial VWAP Level of 396.997 as of July 17, 2012. All determinations made by the VWAP Calculation Agent will be at the sole discretion of the VWAP Calculation Agent and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different VWAP Calculation Agent from time to time without your consent and without notifying you.

All calculations with respect to the VWAP of any Index constituent, any VWAP Level and the Final VWAP Level will be rounded to the nearest thousandth, with five ten-thousandths rounded upward (*e.g.*, .8765 would be rounded to .877).

Market Disruption Event

To the extent a Disrupted Day (as defined below) exists with respect to an Index constituent on an Averaging Date (as defined below) or on a Redemption Measurement Date, the VWAP and published unit weighting with respect to such Index constituent (and only with respect to such Index constituent) for such Averaging Date or Redemption Measurement Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day that is not a Disrupted Day (the “Deferred Averaging Date”) with respect to such Index constituent irrespective of whether pursuant to such determination, the Deferred Averaging Date would fall on a date originally scheduled to be an Averaging Date. If the postponement described in the preceding sentence results in the VWAP of a particular Index constituent being calculated on a day originally scheduled to be an Averaging Date, for purposes of determining the VWAP Levels on the Index Business Days during the Final Measurement Period or the Call Measurement Period, or on the Redemption Measurement Date, as applicable, the Security Calculation Agent or one of its affiliates, as the case may be, will apply the VWAP and the published unit weighting with respect to such Index constituent for such Deferred Averaging Date to the calculation of the VWAP Level (i) on the date(s) of the original disruption with respect to such Index constituent and (ii) such Averaging Date. For example, if the Final Measurement Period or the Call Measurement Period, as applicable, for purposes of calculating the Cash Settlement Amount or Call Settlement Amount, respectively, is based on the arithmetic mean of the VWAP Levels on June 6, 2016, June 7, 2016, June 8, 2016, June 9, 2016 and June 10, 2016 and there is a Market Disruption Event for an Index constituent on June 6, 2016, but no other Market Disruption Event during the Final Measurement Period or the Call Measurement Period, as applicable, then the VWAP for such disrupted Index constituent on June 7, 2016 will be used more than once to calculate the Cash Settlement Amount or Call Settlement Amount, respectively, and such Cash Settlement Amount or Call Settlement Amount, as applicable, will be determined based on the arithmetic mean of the VWAP for such disrupted Index constituent on June 7, 2016, June 7, 2016, June 8, 2016, June 9, 2016 and June 10, 2016.

If the Redemption Measurement Date for purposes of calculating a Redemption Amount is based on the VWAP Level on June 6, 2016 and there is a Market Disruption Event for an Index constituent on June 6, 2016, then the VWAP for such disrupted Index constituent on June 7, 2016 will be used to calculate the Redemption Amount.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the final Averaging Date or the Redemption Measurement Date, as applicable, with respect to any Index constituent occurring more than three (3) Index Business Days following the day originally scheduled to be such final Averaging Date or Redemption Measurement Date. If the third Index Business Day following the date originally scheduled to be the final Averaging Date, or the Redemption Measurement Date, as applicable, is not an Index Business Day or is a Disrupted Day with respect to such Index constituent, the Security Calculation Agent or one of its affiliates will determine the VWAP and unit weighting with respect to any Index constituent required to be determined for the purpose of calculating the applicable VWAP Level based on its good faith estimate of the VWAP and unit weighting of each such Index constituent that would have prevailed on the Primary Exchange on such third Index Business Day but for such suspension or limitation.

An “Averaging Date” means each of the Index Business Days during the Final Measurement Period or the Call Measurement Period, as applicable, subject to adjustment as described herein.

A “Disrupted Day” with respect to any Index constituent is any Index Business Day on which the Primary Exchange or any Related Exchange fails to open for trading during its regular trading session or on which a Market Disruption Event has occurred and is continuing, and, in both cases, the occurrence of which is determined by the Security Calculation Agent to have a material effect on the VWAP Level.

With respect to an Index constituent, a “Market Disruption Event” means:

- (a) the occurrence or existence of a condition specified below:
 - (i) any suspension, absence or limitation of trading on the Primary Exchange for trading in the Index constituent, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
 - (ii) any suspension, absence or limitation of trading on the Related Exchange for trading in futures or options contracts related to the Index constituent, whether by reason of movements in price exceeding limits permitted by such Related Exchange or otherwise, or
 - (iii) any event (other than an event described in (b) below) that disrupts or impairs (as determined by the Security Calculation Agent) the ability of market participants in general (A) to effect transactions in, or obtain market values for, the relevant Index constituent or (B) to effect transactions in, or obtain market values for, futures or options contracts relating to the relevant Index constituent; or

- (b) the closure on any Index Business Day of the Primary Exchange or any Related Exchange prior to its Scheduled Closing Time unless such earlier closing time is announced by the Primary Exchange or such Related Exchange at least one hour prior to the earlier of (i) the actual closing time for the regular trading session on the Primary Exchange or such Related Exchange on such Index Business Day and (ii) the submission deadline for orders to be entered into the Primary Exchange or such Related Exchange system for execution at the close of trading on such Index Business Day;
in each case determined by the Security Calculation Agent in its sole discretion; and
- (c) a determination by the Security Calculation Agent in its sole discretion that the event described above materially interfered with our ability or the ability of any of our affiliates to adjust or unwind all or a material portion of any hedge with respect to the Securities.

For purposes of the above definition:

- (a) a limitation on the hours or number of days of trading will not constitute a Market Disruption Event if it results from an announced change in the regular business hours of the Primary Exchange or Related Exchange, and
- (b) for purposes of clause (a) above, limitations pursuant to the rules of any Primary Exchange or Related Exchange similar to NYSE Rule 80B or Nasdaq Rule 4120 (or any applicable rule or regulation enacted or promulgated by any other self-regulatory organization or any government agency of scope similar to NYSE Rule 80B or Nasdaq Rule 4120 as determined by the Security Calculation Agent) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading.

“Scheduled Closing Time” means, with respect to the Primary Exchange or the Related Exchange, on any Index Business Day, the scheduled weekday closing time of the Primary Exchange or such Related Exchange on such Index Business Day, without regard to after hours or any other trading outside of the regular trading session hours.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described in “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Optional Tax Redemption”. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic position.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.” In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the four (4) Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the fourth Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in Stated Principal Amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the “Medium-Term Notes, Series B” after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount in U.S. dollars for the principal of the Securities, as determined by the Security Calculation Agent in its sole discretion, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys' fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two (2) Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third (3rd) Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third (3rd) Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two (2) Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and is rated either:

- A-1 or higher by S&P or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index; Alteration of Method of Calculation

If S&P discontinues publication of or otherwise fails to publish the Index, or S&P does not make the Index constituents, their unit weighting and/or the Index Divisor available to the VWAP Calculation Agent, and the Index Sponsor, S&P or another entity publishes a successor or substitute index that the Security Calculation Agent determines to be comparable to the discontinued Index and for which the Index constituents, their unit weighting, and/or the Index Divisor are available to the VWAP Calculation Agent (such index being referred to herein as a "successor index"), then the VWAP Level for such successor index will be determined by the VWAP Calculation Agent by reference to the sum of the products of the VWAPs of the components underlying such successor index on the Primary Exchanges and each such component's respective weighting within the successor index (which sum will be adjusted by any index divisor used by such successor index) on the dates and at the times as of which the VWAP Levels for such successor index are to be determined.

Upon any selection by the Security Calculation Agent of a successor Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If S&P discontinues publication of the Index or does not make the Index constituents, their unit weightings and/or Index Divisor available to the VWAP Calculation Agent prior to, and such discontinuation or unavailability is continuing on the Calculation Date or any Index Business Day during the Final Measurement Period or the Call Measurement Period, or on the Redemption Measurement Date, as applicable, or any other relevant date on which the VWAP Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during the Final Measurement Period or the Call Measurement Period, or on the Redemption Measurement Date, as applicable, or any other relevant date on which the VWAP Level is to be determined, then the Security Calculation Agent will determine the relevant VWAP Levels using the VWAP and published unit weighting of each Index constituent included in the Index or successor index, as applicable, immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions as described under "Alerian MLP Index — Index Rebalancings." In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index or a successor index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the VWAP Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the VWAP Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at a VWAP level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the VWAP Levels for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Final VWAP Level, the Current Indicative Value, the Index Performance Ratio, the Coupon Amount, the Adjusted Coupon Amount, if any, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Adjusted Reference Distribution Amount, the Accrued Tracking Fee (including the Quarterly Tracking Fee, any Tracking Fee Shortfall and any Adjusted Tracking Fee Shortfall), the Adjusted Tracking Fee, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, and the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, based on the relevant VWAP Levels calculated by the VWAP Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the Index), which, in turn, causes the VWAP Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at a VWAP Level for the Index or such successor index as if it had not been modified (*e.g.*, as if such split had not occurred).

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or call, or upon early redemption will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities”.

Modified Business Day

As described in “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities”, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Cash Settlement Amount at Maturity,” “— UBS Call Right” and “— Early Redemption at the Option of the Holders” above.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate principal amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed such amount at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Amounts That We May Issue”.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate stated principal amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC's settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

9. ETRACS Monthly Pay 2xLeveraged US Small Cap High Dividend ETN Series B, due November 10, 2048

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below. The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity, call or acceleration, or upon early redemption. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the Reference Distribution Amount, calculated as of the corresponding Coupon Valuation Date (the “**Coupon Amount**”).

If the Reference Distribution Amount on such Coupon Valuation Date is zero, you will not receive any Coupon Amount on the related Coupon Payment Date. The final Coupon Amount will be included in the

Cash Settlement Amount if on the last Index Business Day in the Final Measurement Period the Coupon Ex-Date with respect to the final Coupon Amount has not yet occurred.

The “**Coupon Payment Date**” means the fifteenth (15th) Index Business Day following each Coupon Valuation Date. The final Coupon Payment Date will be the Maturity Date, subject to adjustment as described herein. The first Coupon Payment Date will be December 21, 2018, subject to adjustment as provided herein.

The “**Coupon Record Date**” means the ninth Index Business Day following each Coupon Valuation Date.

The “**Coupon Ex-Date**,” with respect to a Coupon Amount, means the first Exchange Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the Exchange Business Day prior to the applicable Coupon Record Date.

The “**Coupon Valuation Date**” means the 30th day of each month, and the 28th day of February of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date, subject to adjustment described herein. The first Coupon Valuation Date will be November 30, 2018.

The “**Reference Distribution Amount**” means (i) as of the first Coupon Valuation Date, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the record date with respect to any Index Constituent Security, for those cash distributions whose ex-dividend date occurs during the period from, but excluding, the Initial Trade Date to, and including, the first Coupon Valuation Date; (ii) as of any other Coupon Valuation Date (other than the Calculation Date), an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the record date with respect to any Index Constituent Security for those cash distributions whose ex-dividend date occurs during the period from, but excluding, the immediately preceding Coupon Valuation Date to, and including, such Coupon Valuation Date; and (iii) as of the Calculation Date, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the record date with respect to any Index Constituent Security for those cash

distributions whose ex-dividend date occurs during the period from, but excluding, the immediately preceding Coupon Valuation Date to, but excluding, the Calculation Date.

Notwithstanding the foregoing, with respect to cash distributions for an Index Constituent Security which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index Constituent Security fails to pay the distribution to holders of such Index Constituent Security by the scheduled payment date for such distribution, such distribution will be assumed to be zero for the purposes of calculating the applicable Reference Distribution Amount.

The “**Reference Holder**” is, as of any date of determination, a hypothetical holder of a number of units of each Index Constituent Security equal to two *times* (a) the product of (i) the published unit weighting of that Index Constituent Security as of that date and (ii) the Current Principal Amount, *divided* by (b) the Monthly Initial Closing Level or Loss Rebalancing Closing Level, whichever is more recent.

“**record date**” means, (i) with respect to a distribution on an Index Constituent Security, the date on which a holder of the Index Constituent Security must be registered as a stockholder/unitholder of such Index Constituent Security in order to be entitled to receive such distribution and (ii) with respect to any split or reverse split, the tenth Business Day after the announcement date.

“**ex-dividend date**” means, with respect to a distribution on an Index Constituent Security, the first Business Day on which transactions in such Index Constituent Security trade on the Primary Exchange without the right to receive such distribution.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is November 10, 2048, which will be the second Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated, you will receive at maturity a cash payment equal to:

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the last Index Business Day in the Final Measurement Period, *plus*
- (b) the final Coupon Amount, if on the last Index Business Day in the Final Measurement Period the Coupon Ex-Date with respect to the final Coupon Amount has not yet occurred, *minus*
- (c) the Accrued Fees as of the last Index Business Day in the Final Measurement Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Final Measurement Period, if any.

We refer to this cash payment as the “**Cash Settlement Amount**.”

If the amount so calculated is equal to or less than zero, the payment at maturity will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation.

$$\frac{\text{Current Principal Amount}}{\text{Index Factor}} + \text{Final Coupon Amount} - \text{Accrued Fees} + \text{Stub Reference Distribution Amount}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts and/or any Stub Reference Distribution Amount, as applicable, you may be entitled to receive), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment at maturity.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right and, upon the occurrence of an acceleration event, the Securities may be accelerated and redeemed by UBS, at its option. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Optional Acceleration Upon Minimum Indicative Value”.

The Stated Principal Amount of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount.

The Current Principal Amount for the period from the Initial Settlement Date to November 30, 2018 (such period, the “**initial calendar month**”) will equal \$25.00 per Security (unless a Loss Rebalancing Event occurs during the initial calendar month). For each subsequent calendar month, the Current Principal Amount for each Security will be reset as follows on the Monthly Reset Date:

$$\text{New Current Principal Amount} = \text{previous Current Principal Amount} \times \text{Index Factor on the applicable Monthly Valuation Date} - \text{Accrued Fees on the applicable Monthly Valuation Date}$$

In the event of a Loss Rebalancing Event, the Current Principal Amount will be reset on the applicable Loss Rebalancing Reset Date as described below

under “— Loss Rebalancing Events”.

If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, then the Current Principal Amount will not be reset on such date and no further Monthly Reset Dates will occur during the term of the Securities.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

For each calendar month, the “**Monthly Reset Date**” is the first Exchange Business Day of that month beginning on December 1, 2018 and ending on November 1, 2048, subject to adjustment as described under “— Market Disruption Event.” If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, as applicable, then the Current Principal Amount will not be reset on such date and no further Monthly Reset Dates will occur during the term of the Securities.

For each Monthly Reset Date, the “**Monthly Valuation Date**” is the last Exchange Business Day of the previous calendar month beginning on November 30, 2018 and ending on October 31, 2048, subject to adjustment as described under “— Market Disruption Event.” If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, then the Current Principal Amount will not be reset on such date and no further Monthly Reset Dates or Monthly Valuation Dates will occur during the term of the Securities.

The “**Index Factor**” is: $1 + (2 \times \text{Index Performance Ratio})$.

The “**Index Performance Ratio**” may be calculated on multiple dates of determination during any applicable calendar month. The formula used to calculate the Index Performance Ratio on any date of determination depends on the number of Loss Rebalancing Events that have occurred in the applicable calendar month.

If no Loss Rebalancing Events have occurred in the applicable calendar month, then on any Index Business Day during a Measurement Period, or on the Monthly Valuation Date, any Redemption Valuation Date, the first Loss Rebalancing Valuation Date of the applicable calendar month or any other date of determination, as applicable, the Index Performance Ratio will be equal to:

$$\frac{\text{Index Valuation Level} - \text{Monthly Initial Closing Level}}{\text{Monthly Initial Closing Level}}$$

where the “Monthly Initial Closing Level” for the initial calendar month is 122.3841, the Index Closing Level on November 8, 2018. For each subsequent calendar month, the Monthly Initial Closing Level will equal the Index Closing Level on the Monthly Valuation Date for the previous calendar month. For example, the Monthly Initial Closing Level for December 2018 will equal the Index Closing Level on November 30, 2018, subject to adjustment. If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, then the Current Principal Amount will not be reset on such date and the Monthly Initial Closing Level for the then-current calendar month will remain the same as it was for the immediately preceding calendar month.

If one or more Loss Rebalancing Events have occurred during the applicable calendar month, then on any Index Business Day during a Measurement Period, or on the Monthly Valuation Date, any Redemption Valuation Date, on each Loss Rebalancing Valuation Date after the first Loss Rebalancing Valuation Date in the applicable calendar month or on any other date of determination, as applicable, the Index Performance Ratio will be equal to:

$$\frac{\text{Index Valuation Level} - \text{the most recent Loss Rebalancing Closing Level}}{\text{the most recent Loss Rebalancing Closing Level}}$$

The “**Index Closing Level**” will equal the closing level of the Index on any date of determination, as reported on the NYSE and Bloomberg L.P.

The “**Index Valuation Level**”, as determined by the Security Calculation Agent will equal the arithmetic mean of the Index Closing Levels measured on each Index Business Day during the applicable Measurement Period, or the Index Closing Level on any Monthly Valuation Date, Loss Rebalancing Valuation Date or Redemption Valuation Date, provided that if the Redemption Valuation Date falls in any Measurement Period, for the purposes of calculating the Index Performance Ratio as of the Redemption Valuation Date, the Index Valuation Level on any date of determination during such Measurement Period shall equal (a) $1/5 \text{ times}$ (b) (i) the sum of the Index Closing Levels on each Index Business Day from, and including, the first Index Business Day of the applicable Measurement Period, to, and including, the date of determination, *plus* (ii) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such Measurement Period, *times* the Index Closing Level on such date of determination.

“**Measurement Period**” means the Final Measurement Period, Call Measurement Period or Acceleration Valuation Period, as applicable.

The “**intraday indicative value**”, or “**Indicative Value**” is an amount per Security, as determined by the Security Calculation Agent as of any date of determination equal to (Current Principal Amount on the previous calendar day \times Index Factor, calculated using the intraday indicative value of the Index) — Accrued Fees + Coupon Amount with respect to the Coupon Valuation Date immediately preceding the date of determination if on the date of determination the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred + Reference Distribution Amount, calculated as if such time and date of determination is a Coupon Valuation Date.

The “**Current Indicative Principal Amount**”, is an amount per Security, as determined by the Security Calculation Agent as of any date of determination, equal to the product of (i) the Current Principal Amount and (ii) the Index Factor as of such date, using the Index Closing Level as of

such date as the Index Valuation Level.

The “**Accrued Fees**” as of any date of determination means the sum of (1) the Accrued Tracking Fee as of such date and (2) the Accrued Financing Charges as of such date.

The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to 0.
- (b) On the initial Monthly Valuation Date (or if applicable, on a Loss Rebalancing Date that occurs prior to the initial Monthly Valuation Date), the Accrued Tracking Fee is an amount equal to the product of: (a) the Annual Tracking Fee as of the initial Monthly Valuation Date and (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the Initial Trade Date to, and including, the initial Monthly Valuation Date (or Loss Rebalancing Date, as applicable), and the denominator of which is 365.
- (c) On any subsequent Monthly Valuation Date other than the Initial Monthly Valuation Date or on any Loss Rebalancing Date, the Accrued Tracking Fee is an amount equal to the product of (a) the Annual Tracking Fee as of such Monthly Valuation Date or Loss Rebalancing Date, as the case may be, and (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Date, whichever is more recent), to, and including, such Monthly Valuation Date or Loss Rebalancing Date, as the case may be, and the denominator of which is 365.
- (d) On the last Exchange Business Day of an applicable Measurement Period, or as of the Redemption Valuation Date, as applicable, the Accrued Tracking Fee is an amount equal to the product of (a) the Annual Tracking Fee calculated as of the last Exchange Business Day of the applicable Measurement Period, or as of the Redemption Valuation Date, as applicable, and (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Date, whichever is more recent), to, and including, (i) such last Exchange Business Day of such Measurement Period, or (ii) such Redemption Valuation Date (or, if the Optional Acceleration Date or Redemption Valuation Date occurs prior to the initial Monthly Valuation Date, the period from, and excluding, the Initial Trade Date), as applicable, and the denominator of which is 365.

The “**Annual Tracking Fee**” is, as of any date of determination, an amount per Security equal to the product of (i) the Annual Tracking Rate and (ii) the Current Indicative Principal Amount as of the immediately preceding Index Business Day.

The “**Annual Tracking Rate**” is 0.85%.

The Securities are subject to “**Accrued Financing Charges**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Charge for each Security is equal to \$0.
- (b) On the initial Monthly Valuation Date (or if applicable, on a Loss Rebalancing Date that occurs prior to the initial Monthly Valuation Date), the Accrued Financing Charge for each Security will equal (a) the aggregate sum of (i) the Financing Level as of each date starting from, but excluding, the Initial Trade Date, to and including the initial Monthly Valuation Date (or Loss Rebalancing Date, whichever is more recent) *times* (ii) the Financing Rate as of such date, *divided by* (b) 360.
- (c) On any subsequent Monthly Valuation Date, the Accrued Financing Charge for each Security will equal (a) the aggregate sum of (i) the Financing Level as of each date starting from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Valuation Date, whichever is more recent), to and including, the then current Monthly Valuation Date *times* (ii) the Financing Rate as of such date, *divided by* (b) 360.
- (d) On the last Index Business Day of an applicable Measurement Period, or as of the Redemption Valuation Date, as applicable, the Accrued Financing Charge for each Security will equal (a) the aggregate sum of (i) the Financing Level as of each date starting from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Valuation Date, or, if the Redemption Valuation Date falls in the Initial Calendar Month, the Initial Trade Date, whichever is more recent), to, and including such last Index Business Day in such Measurement Period, or such Redemption Valuation Date, as applicable, *times* (ii) the Financing Rate as of such date, *divided by* (b) 360.

The “**Financing Level**” is, as of any date of determination, an amount that equals the Current Principal Amount.

The “**Financing Rate**” will equal the sum of (a) the “**Financing Spread**” of 0.80% and (b) the London interbank offered rate (British Banker’s Association) for three-month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Calculation Agent) (“**LIBOR**”), as of 11:00 a.m., London time, on the day that is two London business days prior to the immediately preceding Monthly Valuation Date.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry-accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London business day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The Accrued Financing Charges seek to compensate UBS for providing investors with the potential to receive a leveraged participation in movements in the Index Closing Level and are intended to approximate the monthly financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Securities.

The “**Final Measurement Period**” means the five Index Business Days from, and including, the Calculation Date, subject to adjustment as described under “— Market Disruption Event.”

The “**Stub Reference Distribution Amount**” means, as of the last Index Business Day in a Measurement Period, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the “record date” with respect to any Index Constituent Security, for those cash distributions whose “ex-dividend date” occurs during the period from, but excluding, the immediately preceding Coupon Valuation Date (or if such Redemption Valuation Date or the Optional Acceleration Date occurs prior to the first Coupon Valuation Date, the period from but excluding the Initial Trade Date) to, and including, such last Index Business Day of such Measurement Period, or such Redemption Valuation Date, as applicable; provided, that for the purpose of calculating the Stub Reference Distribution Amount, the Reference Holder will be deemed to hold four-fifths, three-fifths, two-fifths and one-fifth of the shares of each Index Constituent Security it would otherwise hold on the second, third, fourth and fifth Index Business Day, respectively, in such Measurement Period.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently Solactive.

The “**Calculation Date**” means November 2, 2048, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

“**Index Business Day**” means any day on which the Primary Exchange and each Related Exchange are scheduled to be open for trading.

“**Exchange Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

“**Related Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, each exchange or quotation system where trading has a material effect (as determined by the Security Calculation Agent) on the overall market for futures or options contracts relating to such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return on the Securities is linked to the performance of the price return version of the Solactive US Small Cap High Dividend Index (“SOLSMHD”). The Index is designed to measure the performance of 100 relatively small capitalization, dividend yielding Index Constituent Securities selected from a universe of qualifying U.S. listed equity securities. The Index Sponsor and Index Calculation Agent is Solactive AG (“**Solactive**” or the “**Index Sponsor**”).

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 4:00 p.m., New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on any applicable Index Business Day, provided that you request that we redeem a minimum of 50,000 Securities. We reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to the benefit of any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be November 15, 2018, and the final Redemption Date will be November 3, 2048. In addition, if a call notice has been issued or if acceleration has been triggered, the last Redemption Valuation Date will be the fifth Index Business day prior to the Call Settlement Date or Acceleration Settlement Date, as applicable. If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date}).$$

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}.$$

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation.

$$\text{Closing Indicative Value} \quad - \quad \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable (less any Coupon Amounts and/or any Stub Reference Distribution Amount you may be entitled to receive as of the Redemption Valuation Date), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment upon early redemption.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right and, upon the occurrence of an acceleration event, the Securities may be accelerated and redeemed by UBS, at its option. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Optional Acceleration Upon Minimum Indicative Value”.

We discuss these matters in the accompanying prospectus under “Description of Debt Securities We May Offer — Redemption and Repayment.”

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 4:00 p.m. (New York City time) on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 4:00 p.m. (New York City time), or your Redemption Confirmation after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the Redemption Notice is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to the benefit of any such waiver or election to accelerate the Redemption Valuation Date.

UBS’s Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen (18) calendar days’ prior notice to the holders of the Securities (which may be provided via press release), such redemption to occur on any Business Day that we may specify on or after November 15, 2019 through and including the Maturity Date. Upon early redemption in the event we exercise this right, you will receive a cash payment equal to

- the product of
 - the Current Principal Amount and (ii) the Index Factor as of the last Index Business Day in the Call Measurement Period, *plus*
- the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Call Valuation Date if on the last Index Business Day in the Call Measurement Period the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *minus*
- the Accrued Fees as of the last Index Business Day in the Call Measurement Period, *plus*
- the Stub Reference Distribution Amount as of the last Index Business Day in the Call Measurement Period, if any.

We refer to this cash payment as the “**Call Settlement Amount.**”

If the amount calculated above is equal to or less than zero, the payment upon UBS’s exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the second Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event.”

The “**Call Measurement Period**” means:

- if the Market Value of Securities outstanding as at the close of business on the Exchange Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is less than \$75,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”;
- if the Market Value of Securities outstanding as at the close of business on the Exchange Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is equal to or greater than \$75,000,000, the five (5) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”

The “**Market Value**” of the Securities outstanding as of the close of business on the Exchange Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right will equal:

Intraday indicative value as of such Exchange Business Day × number of Securities outstanding as reported by SMHBIV <Index> on Bloomberg.

The “**Call Valuation Date**” means the date disclosed as such by UBS in its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right.

In any notice to holders exercising the UBS Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation.

$$\begin{array}{ccccccc} & \text{Current} & & & & & \text{Stub} \\ & \text{Principal} & & & & & \text{Reference} \\ & \text{Amount} & + & \text{Coupon} & - & \text{Accrued} & \text{Distribution} \\ & \times & & \text{Amount} & & \text{Fees} & \text{Amount} \\ & \text{Index Factor} & & & & & \end{array}$$

You may lose all or a substantial portion of your investment upon a call. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts and/or any Stub Reference Distribution Amount, as applicable, you may be entitled to receive), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment upon a call.

In addition, upon the occurrence of an acceleration event, the Securities may be accelerated and redeemed by UBS, at its option. See “Specific Terms of the Securities — Optional Acceleration Upon Minimum Indicative Value”.

Optional Acceleration Upon Minimum Indicative Value

If, at any time, the intraday indicative value of the Securities on any Index Business Day equals \$2.00 or less (the “**Indicative Value Optional Acceleration Trigger**”) (each such day, an “**Optional Acceleration Date**”), all issued and outstanding Securities may be accelerated and redeemed by UBS, at its option (even if the intraday indicative value would later exceed \$2.00 on such Optional Acceleration Date or any subsequent Index Business Day) for a cash payment equal to the Acceleration Amount (the “**Acceleration Option**”).

In the event that the Indicative Value Optional Acceleration Trigger threshold has been breached, UBS will issue a press release before 9:00 a.m. on the Index Business Day following the Optional Acceleration Date announcing whether or not it has elected to exercise its Acceleration Option. UBS is under no obligation to exercise its Acceleration Option and the Securities may remain outstanding following an Indicative Value Optional Acceleration Trigger Event occurring, if UBS does not elect to exercise such Acceleration Option.

The “**Acceleration Amount**” will equal

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the last Index Business Day in the Acceleration Valuation Period, *plus*
- (b) the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Optional Acceleration Date if on the last Index Business Day in the Acceleration Valuation Period the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *minus*
- (c) the Accrued Fees as of the last Index Business Day in the Acceleration Valuation Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Acceleration Valuation Period, if any.

If the Acceleration Amount is equal to or less than zero, the payment upon acceleration will be zero.

If the Indicative Value Optional Acceleration Trigger threshold has been breached and UBS elects to exercise its Acceleration Option, you will receive on the Acceleration Settlement Date only the Acceleration Amount in respect of your investment in the Securities. The “**Acceleration Settlement Date**” will be the second Business Day following the last Index Business Day of the Acceleration Valuation Period. The “**Acceleration Valuation Period**” will be the five Index Business Days from, but excluding, the Optional Acceleration Date, subject to adjustment as described under “— Market Disruption Event.” Subject to the prior verification by the Security Calculation Agent that the intraday indicative value of the Securities of \$2.00 or less was accurately calculated by the NYSE, UBS must provide notice (which may be provided via press release) to the holders of the Securities that the minimum indicative value threshold has been breached not less than five calendar days prior to the Acceleration Settlement Date.

For a detailed description of how the minimum indicative value of the Securities is calculated see “Valuation of the Index and the Securities”.

If the Securities undergo a split or reverse split, the Indicative Value Optional Acceleration Trigger will be adjusted accordingly.

The following graphic illustrates the formula to determine the Acceleration Amount, which has been simplified for ease of presentation.

$$\begin{array}{ccccccc} \text{Current Principal} & & & & & & \\ \text{Amount} & & & & & & \\ \times & & + & & - & & + \\ \text{Index Factor} & & \text{Coupon} & & \text{Accrued} & & \text{Stub Reference} \\ & & \text{Amount} & & \text{Fees} & & \text{Distribution} \\ & & & & & & \text{Amount} \end{array}$$

You may lose all or a substantial portion of your investment upon acceleration. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts and/or any Stub Reference Distribution Amount, as applicable, you may be entitled to receive), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment upon acceleration.

In addition, the Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on any Index Business Day (other than an Excluded Day, as defined herein) decreases 20% in value from the previous Monthly Initial Closing Level or Loss Rebalancing Closing Level, whichever is more recent. If a Loss Rebalancing Event occurs, the Current Principal Amount of the Securities will be reset as described below, which will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. A Loss Rebalancing Event may occur irrespective of whether a Market Disruption Event also occurs on such Index Business Day.

Upon the occurrence of a Loss Rebalancing Event, the Current Principal Amount will be reset on the applicable Loss Rebalancing Reset Date as follows:

New Current Principal Amount = previous Current Principal Amount × Index Factor on the applicable Loss Rebalancing Valuation Date — Accrued Fees on the applicable Loss Rebalancing Valuation Date

In the event of a Loss Rebalancing Event, the Financing Rate will not be adjusted.

On the next Monthly Valuation Date following one or more Loss Rebalancing Events, the Monthly Initial Closing Level will be replaced with the most recent Loss Rebalancing Closing Level in the calculation of the Index Performance Ratio.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar month. This means both that (i) the Current Principal Amount may be reset more frequently than monthly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

On any Loss Rebalancing Valuation Date, the Accrued Financing Charges for each Security will equal the product of (i) the Financing Level on the immediately preceding Monthly Valuation Date or Loss Rebalancing Valuation Date, whichever is more recent, *times* (ii) the Financing Rate *times* (iii) the number of calendar days from, but excluding, the immediately preceding Monthly Valuation Date or Loss Rebalancing Valuation Date, whichever is more recent, to, and including, the then current Loss Rebalancing Valuation Date *divided by* (iv) 360.

An “**Excluded Day**” means (i) the Index Business Day immediately preceding any Monthly Valuation Date, (ii) any Monthly Valuation Date, (iii) any Loss Rebalancing Valuation Date (iv) the Index Business Day immediately preceding the first day of the Final Measurement Period or any day after such Index Business Day, (v) the Index Business Day immediately preceding the first day of the Call Measurement Period or any day after such Index Business Day, or (vi) the Optional Acceleration Date or any day after the Optional Acceleration Date.

“**Loss Rebalancing Closing Level**” means the Index Closing Level on the Loss Rebalancing Valuation Date.

“**Loss Rebalancing Reset Date**” means the first Index Business Day immediately following a Loss Rebalancing Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”;
- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Principal Amount, intraday indicative value, Market Disruption Events, Business Days, Index Business Days, Exchange Business Days, the Index Factor, the Index Performance Ratio, the Index Valuation Level, the Financing Level, the Accrued Fees (including determining any successor to the LIBOR base rate), the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Fees, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable, the Acceleration Amount that we will pay you upon acceleration, the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, whether a Loss Rebalancing Event has occurred and whether any day is a Business Day, Index Business Day or an Exchange Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Security, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity, call or acceleration, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 noon, New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date, Acceleration Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Fees, the Redemption Amount and Redemption Fee Amount, if any, per Security, the Call Settlement Amount, if any, per Security, the Current Principal Amount, the Acceleration Amount, the Financing Level, and the Cash Settlement Amount, if any, per Security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid on the Stated Principal Amount of the Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on an Averaging Date (as defined below), the Index Closing Level for such Averaging Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing (the “**Deferred Averaging Date**”) with respect to the Index irrespective of whether, pursuant to such determination, the Deferred Averaging Date would fall on a date originally scheduled to be an Averaging Date. If the postponement described in the preceding sentence results in the Index Closing Level being calculated on a day originally scheduled to be an Averaging Date, for purposes of determining the Index Closing Level on any Averaging Date, the Security Calculation Agent or one of its affiliates, as the case may be, will apply the Index Closing Level for such Deferred Averaging Date (i) on the date(s) of the original Market Disruption Event and (ii) such Averaging Date. For example, if the applicable Measurement Period for purposes of calculating the Call Settlement Amount is based on the arithmetic mean of the Index Closing Levels on October 3, October 4, October 5, October 6 and October 7, and there is a Market Disruption Event with respect to the Index on October 3, but no other Market Disruption Event during such Measurement Period, then the Index Closing Level on October 4 will be used twice to calculate the Call Settlement Amount, and the Call Settlement Amount will be determined based on the arithmetic mean of the Index Closing Levels on October 4, October 4, October 5, October 6 and October 7. The same approach would be applied if there is a Market Disruption Event during any Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date or any Monthly Valuation Date or Loss Rebalancing Valuation Date, the Index Closing Level for such Redemption Valuation Date, Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable, will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on October 3 and there is a Market Disruption Event with respect to the Index on October 3, then the Index Closing Level on October 4 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on October 4.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the final Averaging Date or any Monthly Valuation Date, Redemption Valuation Date or Loss Rebalancing Valuation Date, as applicable, occurring more than three Index Business Days following the day originally scheduled to be such final Averaging Date or such Monthly Valuation Date, Redemption Valuation Date or Loss Rebalancing Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the third Index Business Day following the date originally scheduled to be the final Averaging Date or any Monthly Valuation Date, Redemption Valuation Date or Loss Rebalancing Valuation Date, as applicable, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such third Index Business Day but for such Market Disruption Event. If any Monthly Valuation Date or Loss Rebalancing Valuation Date is postponed as described above, the succeeding Monthly Reset Date or Loss Rebalancing Reset Date will occur on the next Index Business Day following the postponed Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable.

An “**Averaging Date**” means each of the Index Business Days during a Measurement Period, subject to adjustment as described herein.

Any of the following will be a Market Disruption Event with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities for trading in the Index Constituent Security, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging”.

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under “Description of Debt Securities We May Offer —Optional Tax Redemption” in the accompanying prospectus. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the four Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the fourth Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in the attached prospectus under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, plus
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor discontinues publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a "**successor index**"), and the Security Calculation Agent approves such index as a successor index, then the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination, Coupon Amounts and the amount payable at maturity, call, acceleration or upon early redemption and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the "**Substitute Index**"), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts

hereunder, including the Coupon Amounts, Current Principal Amount, Current Indicative Principal Amount, Index Factor, intraday indicative value, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, or upon early redemption by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An "**Index Replacement Event**" means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of units in the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or the units in the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties' ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after November 8, 2018 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of units in the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or the units in the Index constituents included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after November 8, 2018 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of units in the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or the units in the Index constituents included in the Index (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index or a successor index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the Index Closing Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Valuation Level, the Index Performance Ratio, the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Fees, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, the Acceleration Amount that we will pay you in the event of an optional acceleration upon minimum indicative value, if applicable, the Loss Rebalancing Closing Level, if any, the Monthly Initial Closing Level and all related payment terms based on the Index Closing Level calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (e.g., due to a split in the Index), which, in turn, causes the Index Closing Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor index as if it had not been modified (e.g., as if such split had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity, call or acceleration, or upon early redemption, will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day or a New York Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the accompanying prospectus.

Modified Business Day

As described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the attached prospectus, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Cash Settlement Amount at Maturity,” “— UBS’s Call Right” and “— Early Redemption at the Option of the Holders” above.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in the accompanying prospectus.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

10. ETRACS 2xMonthly Pay Leveraged Preferred Stock Index ETN due September 25, 2048

Specific Terms of the Securities

In this section, references to “holders” or “you” mean those who own the Securities registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of UBS AG debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described under “Medium-Term Notes, Series B” above. The terms described here supplement those described under “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity, call or acceleration, or upon early redemption. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the Reference Distribution Amount, calculated as of the corresponding Coupon Valuation Date (the “Coupon Amount”).

If the Reference Distribution Amount on such Coupon Valuation Date is zero, you will not receive any Coupon Amount on the related Coupon Payment Date. The final Coupon Amount will be included in the Cash Settlement Amount if on the last Index Business Day in the Final Measurement Period the Coupon Ex-Date with respect to the final Coupon Amount has not yet occurred.

The “**Coupon Payment Date**” means the fifteenth (15th) Index Business Day following each Coupon Valuation Date. The final Coupon Payment Date will be the Maturity Date, subject to adjustment as described herein. The first Coupon Payment Date will be October 22, 2018, subject to adjustment as provided herein.

The “**Coupon Record Date**” means the ninth Index Business Day following each Coupon Valuation Date.

The “**Coupon Ex-Date**,” with respect to a Coupon Amount, means the first Exchange Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the Exchange Business Day prior to the applicable Coupon Record Date.

The “**Coupon Valuation Date**” means the 30th day of each month, and the 28th day of February, of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date, subject to adjustment described herein. The first Coupon Valuation Date was October 1, 2018.

The “**Reference Distribution Amount**” means (i) as of the first Coupon Valuation Date, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the record date with respect to any Index Constituent Security, for those cash distributions whose ex-dividend date occurs during the period from, but excluding, the Initial Trade Date to, and including, the first Coupon Valuation Date; (ii) as of any other Coupon Valuation Date (other than the Calculation Date), an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the record date with respect to any Index Constituent Security for those cash distributions whose ex-dividend date occurs during the period from, but excluding, the immediately preceding Coupon Valuation Date to, and including, such Coupon Valuation Date; and (iii) as of the Calculation Date, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the record date with respect to any Index Constituent Security for those cash

distributions whose ex-dividend date occurs during the period from, but excluding, the immediately preceding Coupon Valuation Date to, but excluding, the Calculation Date.

Notwithstanding the foregoing, with respect to cash distributions for an Index Constituent Security which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index Constituent Security fails to pay the distribution to holders of such Index Constituent Security by the scheduled payment date for such distribution, such distribution will be assumed to be zero for the purposes of calculating the applicable Reference Distribution Amount.

The “**Reference Holder**” is, as of any date of determination, a hypothetical holder of a number of units of each Index Constituent Security equal to two *times* (a) the product of (i) the published unit weighting of that Index Constituent Security as of that date and (ii) the Current Principal Amount, *divided* by (b) the Monthly Initial Closing Level or Loss Rebalancing Closing Level, whichever is more recent.

“**record date**” means, (i) with respect to a distribution on an Index Constituent Security, the date on which a holder of the Index Constituent Security must be registered as a stockholder/unitholder of such Index Constituent Security in order to be entitled to receive such distribution and (ii) with respect to any split or reverse split, the tenth Business Day after the announcement date.

“**ex-dividend date**” means, with respect to a distribution on an Index Constituent Security, the first Business Day on which transactions in such Index Constituent Security trade on the Primary Exchange without the right to receive such distribution.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is September 25, 2048, which will be the second Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated, you will receive at maturity a cash payment equal to:

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the last Index Business Day in the Final Measurement Period, *plus*
- (b) the final Coupon Amount, if on the last Index Business Day in the Final Measurement Period the Coupon Ex-Date with respect to the final Coupon Amount has not yet occurred, *minus*
- (c) the Accrued Fees as of the last Index Business Day in the Final Measurement Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Final Measurement Period, if any.

We refer to this cash payment as the “**Cash Settlement Amount**.”

If the amount so calculated is equal to or less than zero, the payment at maturity will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation.

$$\begin{array}{ccccccc}
 \text{Current} & & & & & & \text{Stub} \\
 \text{Principal} & & & & & & \text{Reference} \\
 \text{Amount} & + & \text{Final} & - & \text{Accrued Fees} & + & \text{Distribution} \\
 \times & & \text{Coupon} & & & & \text{Amount} \\
 \text{Index Factor} & & \text{Amount} & & & & \\
 \end{array}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts and/or any Stub Reference Distribution Amount, as applicable, you may be entitled to receive), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment at maturity.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right and, upon the occurrence of an acceleration event, the Securities may be accelerated and redeemed by UBS, at its option. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Optional Acceleration Upon Minimum Indicative Value” below.

The Stated Principal Amount of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount.

The Current Principal Amount for the period from the Initial Settlement Date to September 30, 2018 (such period, the “**initial calendar month**”) is equal to \$25.00 per Security (unless a Loss Rebalancing Event occurs during the initial calendar month). For each subsequent calendar month, the Current Principal Amount for each Security will be reset as follows on the Monthly Reset Date:

$$\text{New Current Principal Amount} = \text{previous Current Principal Amount} \times \text{Index Factor on the applicable Monthly Valuation Date} - \text{Accrued Fees on the applicable Monthly Valuation Date}$$

In the event of a Loss Rebalancing Event, the Current Principal Amount will be reset on the applicable Loss Rebalancing Reset Date as described below under “— Loss Rebalancing Events”.

If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, then the Current Principal Amount will not be reset on such date and no further Monthly Reset Dates will occur during the term of the Securities.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

For each calendar month, the “**Monthly Reset Date**” is the first Exchange Business Day of that month beginning on October 1, 2018 and ending on September 1, 2048, subject to adjustment as described under “— Market Disruption Event.” If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, as applicable, then the Current Principal Amount will not be reset on such date and no further Monthly Reset Dates will occur during the term of the Securities.

For each Monthly Reset Date, the “**Monthly Valuation Date**” is the last Exchange Business Day of the previous calendar month beginning on September 30, 2018 and ending on August 31, 2048, subject to adjustment as described under “— Market Disruption Event.” If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, then the Current Principal Amount will not be reset on such date and no further Monthly Reset Dates or Monthly Valuation Dates will occur during the term of the Securities.

The “**Index Factor**” is: $1 + (2 \times \text{Index Performance Ratio})$.

The “**Index Performance Ratio**” may be calculated on multiple dates of determination during any applicable calendar month. The formula used to calculate the Index Performance Ratio on any date of determination depends on the number of Loss Rebalancing Events that have occurred in the applicable calendar month.

If no Loss Rebalancing Events have occurred in the applicable calendar month, then on any Index Business Day during a Measurement Period, or on the Monthly Valuation Date, any Redemption Valuation Date, the first Loss Rebalancing Valuation Date of the applicable calendar month or any other date of determination, as applicable, the Index Performance Ratio will be equal to:

$$\frac{\text{Index Valuation Level} - \text{Monthly Initial Closing Level}}{\text{Monthly Initial Closing Level}}$$

where the “Monthly Initial Closing Level” for the initial calendar month is 97.6983, the Index Closing Level on September 25, 2018. For each subsequent calendar month, the Monthly Initial Closing Level will equal the Index Closing Level on the Monthly Valuation Date for the previous calendar month. For example, the Monthly Initial Closing Level for October 2018 is equal to the Index Closing Level on September 30, 2018, subject to adjustment. If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, then the Current Principal Amount will not be reset on such date and the Monthly Initial Closing Level for the then-current calendar month will remain the same as it was for the immediately preceding calendar month.

If one or more Loss Rebalancing Events have occurred during the applicable calendar month, then on any Index Business Day during a Measurement Period, or on the Monthly Valuation Date, any Redemption Valuation Date, on each Loss Rebalancing Valuation Date after the first Loss Rebalancing Valuation Date in the applicable calendar month or on any other date of determination, as applicable, the Index Performance Ratio will be equal to:

$$\frac{\text{Index Valuation Level} - \text{the most recent Loss Rebalancing Closing Level}}{\text{the most recent Loss Rebalancing Closing Level}}$$

The “**Index Closing Level**” will equal the closing level of the Index on any date of determination, as reported on the NYSE and Bloomberg L.P.

The “**Index Valuation Level**”, as determined by the Security Calculation Agent will equal the arithmetic mean of the Index Closing Levels measured on each Index Business Day during the applicable Measurement Period, or the Index Closing Level on any Monthly Valuation Date, Loss Rebalancing Valuation Date or Redemption Valuation Date, provided that if the Redemption Valuation Date falls in any Measurement Period, for the purposes of calculating the Index Performance Ratio as of the Redemption Valuation Date, the Index Valuation Level on any date of determination during such Measurement Period shall equal (a) $1/5 \text{ times}$ (b) (i) the sum of the Index Closing Levels on each Index Business Day from, and including, the first Index Business Day of the applicable Measurement Period, to, and including, the date of determination, *plus* (ii) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such Measurement Period, *times* the Index Closing Level on such date of determination.

“**Measurement Period**” means the Final Measurement Period, Call Measurement Period or Acceleration Valuation Period, as applicable.

The “**intraday indicative value**”, or “**Indicative Value**” is an amount per Security, as determined by the Security Calculation Agent as of any date of determination equal to (Current Principal Amount on the previous calendar day \times Index Factor, calculated using the intraday indicative value of the Index) — Accrued Fees + Coupon Amount with respect to the Coupon Valuation Date immediately preceding the date of determination if on the date of determination the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred + Reference Distribution Amount, calculated as if such time and date of determination is a Coupon Valuation Date.

The “**Current Indicative Principal Amount**”, is an amount per Security, as determined by the Security Calculation Agent as of any date of determination, equal to the product of (i) the Current Principal Amount and (ii) the Index Factor as of such date, using the Index Closing Level as of such date as the Index Valuation Level.

The “**Accrued Fees**” as of any date of determination means the sum of (1) the Accrued Tracking Fee as of such date and (2) the Accrued Financing Charges as of such date.

The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to 0.
- (b) On the initial Monthly Valuation Date (or if applicable, on a Loss Rebalancing Date that occurs prior to the initial Monthly Valuation Date), the Accrued Tracking Fee is an amount equal to the product of: (a) the Annual Tracking Fee as of the initial Monthly Valuation Date and (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the Initial Trade Date to, and including, the initial Monthly Valuation Date (or Loss Rebalancing Date, as applicable), and the denominator of which is 365.
- (c) On any subsequent Monthly Valuation Date other than the Initial Monthly Valuation Date or on any Loss Rebalancing Date, the Accrued Tracking Fee is an amount equal to the product of (a) the Annual Tracking Fee as of such Monthly Valuation Date or Loss Rebalancing Date, as the case may be, and (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Date, whichever is more recent), to, and including, such Monthly Valuation Date or Loss Rebalancing Date, as the case may be, and the denominator of which is 365.
- (d) On the last Exchange Business Day of an applicable Measurement Period, or as of the Redemption Valuation Date, as applicable, the Accrued Tracking Fee is an amount equal to the product of (a) the Annual Tracking Fee calculated as of the last Exchange Business Day of the applicable Measurement Period, or as of the Redemption Valuation Date, as applicable, and (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Date, whichever is more recent), to, and including, (i) such last Exchange Business Day of such Measurement Period, or (ii) such Redemption Valuation Date (or, if the Optional Acceleration Date or Redemption Valuation Date occurs prior to the initial Monthly Valuation Date, the period from, and excluding, the Initial Trade Date), as applicable, and the denominator of which is 365.

The “**Annual Tracking Fee**” is, as of any date of determination, an amount per Security equal to the product of (i) the Annual Tracking Rate and (ii) the Current Indicative Principal Amount as of the immediately preceding Index Business Day.

The “**Annual Tracking Rate**” is 0.85%. The Securities are subject to “**Accrued Financing Charges**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Charge for each Security is equal to \$0.
- (b) On the initial Monthly Valuation Date (or if applicable, on a Loss Rebalancing Date that occurs prior to the initial Monthly Valuation Date), the Accrued Financing Charge for each Security will equal (a) the aggregate sum of (i) the Financing Level as of each date starting from, but excluding, the Initial Trade Date, to and including the initial Monthly Valuation Date (or Loss Rebalancing Date, whichever is more recent) *times* (ii) the Financing Rate as of such date, *divided by* (b) 360.
- (c) On any subsequent Monthly Valuation Date, the Accrued Financing Charge for each Security will equal (a) the aggregate sum of (i) the Financing Level as of each date starting from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Valuation Date, whichever is more recent), to and including, the then current Monthly Valuation Date *times* (ii) the Financing Rate as of such date, *divided by* (b) 360.
- (d) On the last Index Business Day of an applicable Measurement Period, or as of the Redemption Valuation Date, as applicable, the Accrued Financing Charge for each Security will equal (a) the aggregate sum of (i) the Financing Level as of each date starting from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Valuation Date, or, if the Redemption Valuation Date falls in the Initial Calendar Month, the Initial Trade Date, whichever is more recent), to, and including such last Index Business Day in such Measurement Period, or such Redemption Valuation Date, as applicable, *times* (ii) the Financing Rate as of such date, *divided by* (b) 360.

The “**Financing Level**” is, as of any date of determination, an amount that equals the Current Principal Amount.

The “**Financing Rate**” will equal the sum of (a) the “**Financing Spread**” of 0.80% and (b) the London interbank offered rate (British Banker’s Association) for three-month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Calculation Agent) (“**LIBOR**”), as of 11:00 a.m., London time, on the day that is two London business days prior to the immediately preceding Monthly Valuation Date.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry-accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London business day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The Accrued Financing Charges seek to compensate UBS for providing investors with the potential to receive a leveraged participation in movements in the Index Closing Level and are intended to approximate the monthly financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Securities.

The “**Final Measurement Period**” means the five Index Business Days from, and including, the Calculation Date, subject to adjustment as described under “— Market Disruption Event.”

The “**Stub Reference Distribution Amount**” means, as of the last Index Business Day in a Measurement Period, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the “record date” with respect to any Index Constituent Security, for those cash distributions whose “ex-dividend date” occurs during the period from, but excluding, the immediately preceding Coupon Valuation Date (or if such Redemption Valuation Date or the Optional Acceleration Date occurs prior to the first Coupon Valuation Date, the period from but excluding the Initial Trade Date) to, and including, such last Index Business Day of such Measurement Period, or such Redemption Valuation Date, as applicable; provided, that for the purpose of calculating the Stub Reference Distribution Amount, the Reference Holder will be deemed to hold four-fifths, three-fifths, two-fifths and one-fifth of the shares of each Index Constituent Security it would otherwise hold on the second, third, fourth and fifth Index Business Day, respectively, in such Measurement Period.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently Solactive.

The “**Calculation Date**” means September, 17, 2048, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

“**Index Business Day**” means any day on which the Primary Exchange and each Related Exchange are scheduled to be open for trading.

“**Exchange Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

“**Related Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, each exchange or quotation system where trading has a material effect (as determined by the Security Calculation Agent) on the overall market for futures or options contracts relating to such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return on the Securities is linked to the performance of the Solactive Preferred Stock ETF Index (“**SOLPRF**”). The Index is intended to track the price movements of an equally weighted portfolio of two ETFs that hold preferred securities of various issuers. We refer to the ETFs included in the Index as the “**Index Constituent Securities**.” The Index Sponsor is Solactive AG (“**Solactive**” or the “**Index Sponsor**”).

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 4:00 p.m., New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on any applicable Index Business Day, provided that you request that we redeem a minimum of 50,000 Securities. We reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to the benefit of any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date was October 2, 2018, and the final Redemption Date will be September 18, 2048.

In addition, if a call notice has been issued or if acceleration has been triggered, the last Redemption Valuation Date will be the fifth Index Business day prior to the Call Settlement Date or Acceleration Settlement Date, as applicable. If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date}).$$

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}.$$

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation.

$$\text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable (less any Coupon Amounts and/or any Stub Reference Distribution Amount you may be entitled to receive as of the Redemption Valuation Date), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment upon early redemption.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right and, upon the occurrence of an acceleration event, the Securities may be accelerated and redeemed by UBS, at its option. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Optional Acceleration Upon Minimum Indicative Value” below.

We discuss these matters in “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Redemption and Payment.”

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice,**” to UBS via email no later than 4:00 p.m. (New York City time) on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 4:00 p.m. (New York City time), or your Redemption Confirmation after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the Redemption Notice is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to the benefit of any such waiver or election to accelerate the Redemption Valuation Date.

UBS's Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen (18) calendar days' prior notice to the holders of the Securities (which may be provided via press release), such redemption to occur on any Business Day that we may specify on or after September 30, 2019 through and including the Maturity Date. Upon early redemption in the event we exercise this right, you will receive a cash payment equal to

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the last Index Business Day in the Call Measurement Period, *plus*
- (b) the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Call Valuation Date if on the last Index Business Day in the Call Measurement Period the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *minus*
- (c) the Accrued Fees as of the last Index Business Day in the Call Measurement Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Call Measurement Period, if any.

We refer to this cash payment as the “**Call Settlement Amount.**”

If the amount calculated above is equal to or less than zero, the payment upon UBS's exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the second Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event.”

The “**Call Measurement Period**” means:

- (a) if the Market Value of Securities outstanding as at the close of business on the Exchange Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is less than \$50,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”;

- (b) if the Market Value of Securities outstanding as at the close of business on the Exchange Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is equal to or greater than \$50,000,000, the five (5) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”

The “**Market Value**” of the Securities outstanding as of the close of business on the Exchange Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right will equal:

Intraday indicative value as of such Exchange Business Day × number of Securities outstanding as reported by PFFLSO <Index> on Bloomberg.

The “**Call Valuation Date**” means the date disclosed as such by UBS in its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right.

In any notice to holders exercising the UBS Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation.

$$\begin{array}{ccccccc} \text{Current} & & & & & & \text{Stub} \\ \text{Principal} & & & & & & \text{Reference} \\ \text{Amount} & + & \text{Coupon} & - & \text{Accrued Fees} & + & \text{Distribution} \\ \times & & \text{Amount} & & & & \text{Amount} \\ \text{Index Factor} & & & & & & \end{array}$$

You may lose all or a substantial portion of your investment upon a call. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts and/or any Stub Reference Distribution Amount, as applicable, you may be entitled to receive), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment upon a call.

In addition, upon the occurrence of an acceleration event, the Securities may be accelerated and redeemed by UBS, at its option. See “Specific Terms of the Securities — Optional Acceleration Upon Minimum Indicative Value” below.

Optional Acceleration Upon Minimum Indicative Value

If, at any time, the intraday indicative value of the Securities on any Index Business Day equals \$2.00 or less (the “**Indicative Value Optional Acceleration Trigger**”) (each such day, an “**Optional Acceleration Date**”), all issued and outstanding Securities may be accelerated and redeemed by UBS, at its option (even if the intraday indicative value would later exceed \$2.00 on such Optional Acceleration Date or any subsequent Index Business Day) for a cash payment equal to the Acceleration Amount (the “**Acceleration Option**”).

In the event that the Indicative Value Optional Acceleration Trigger threshold has been breached, UBS will issue a press release before 9:00 a.m. on the Index Business Day following the Optional Acceleration Date announcing whether or not it has elected to exercise its Acceleration Option. UBS is under no obligation to exercise its Acceleration Option and the Securities may remain outstanding following an Indicative Value Optional Acceleration Trigger Event occurring, if UBS does not elect to exercise such Acceleration Option.

The “**Acceleration Amount**” will equal

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the last Index Business Day in the Acceleration Valuation Period, *plus*
- (b) the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Optional Acceleration Date if on the last Index Business Day in the Acceleration Valuation Period the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *minus*
- (c) the Accrued Fees as of the last Index Business Day in the Acceleration Valuation Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Acceleration Valuation Period, if any.

If the Acceleration Amount is equal to or less than zero, the payment upon acceleration will be zero.

If the Indicative Value Optional Acceleration Trigger threshold has been breached and UBS elects to exercise its Acceleration Option, you will receive on the Acceleration Settlement Date only the Acceleration Amount in respect of your investment in the Securities. The “**Acceleration Settlement Date**” will be the second Business Day following the last Index Business Day of the Acceleration Valuation Period. The “**Acceleration Valuation Period**” will be the five Index Business Days from, but excluding, the Optional Acceleration Date, subject to adjustment as described under “— Market Disruption Event.” Subject to the prior verification by the Security Calculation Agent that the intraday indicative value of the Securities of \$2.00 or less was accurately calculated by the NYSE, UBS must provide notice (which may be provided via press release) to the holders of the Securities that the minimum indicative value threshold has been breached not less than five calendar days prior to the Acceleration Settlement Date. For a detailed description of how the minimum indicative value of the Securities is calculated see “Valuation of the Index and the Securities” below.

If the Securities undergo a split or reverse split, the Indicative Value Optional Acceleration Trigger will be adjusted accordingly.

The following graphic illustrates the formula to determine the Acceleration Amount, which has been simplified for ease of presentation.

$$\begin{array}{ccccccc} \text{Current} & & & & & & \text{Stub} \\ \text{Principal} & & & & & & \text{Reference} \\ \text{Amount} & + & \text{Coupon} & - & \text{Accrued} & + & \text{Distribution} \\ \times & & \text{Amount} & & \text{Fees} & & \text{Amount} \\ \text{Index Factor} & & & & & & \end{array}$$

You may lose all or a substantial portion of your investment upon acceleration. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts and/or any Stub Reference Distribution Amount, as applicable, you may be entitled to receive), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment upon acceleration.

In addition, the Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on any Index Business Day (other than an Excluded Day, as defined herein) decreases 20% in value from the previous Monthly Initial Closing Level or Loss Rebalancing Closing Level, whichever is more recent. If a Loss Rebalancing Event occurs, the Current Principal Amount of the Securities will be reset as described below, which will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. A Loss Rebalancing Event may occur irrespective of whether a Market Disruption Event also occurs on such Index Business Day.

Upon the occurrence of a Loss Rebalancing Event, the Current Principal Amount will be reset on the applicable Loss Rebalancing Reset Date as follows:

New Current Principal Amount = *previous Current Principal Amount* × Index Factor on the applicable Loss Rebalancing Valuation Date — Accrued Fees on the applicable Loss Rebalancing Valuation Date

In the event of a Loss Rebalancing Event, the Financing Rate will not be adjusted.

On the next Monthly Valuation Date following one or more Loss Rebalancing Events, the Monthly Initial Closing Level will be replaced with the most recent Loss Rebalancing Closing Level in the calculation of the Index Performance Ratio.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar month. This means both that (i) the Current Principal Amount may be reset more frequently than monthly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

On any Loss Rebalancing Valuation Date, the Accrued Financing Charges for each Security will equal the product of (i) the Financing Level on the immediately preceding Monthly Valuation Date or Loss Rebalancing Valuation Date, whichever is more recent, *times* (ii) the Financing Rate *times* (iii) the number of calendar days from, but excluding, the immediately preceding Monthly Valuation Date or Loss Rebalancing Valuation Date, whichever is more recent, to, and including, the then current Loss Rebalancing Valuation Date *divided by* (iv) 360.

An “**Excluded Day**” means (i) the Index Business Day immediately preceding any Monthly Valuation Date, (ii) any Monthly Valuation Date, (iii) any Loss Rebalancing Valuation Date (iv) the Index Business Day immediately preceding the first day of the Final Measurement Period or any day after such Index Business Day, (v) the Index Business Day immediately preceding the first day of the Call Measurement Period or any day after such Index Business Day, or (vi) the Optional Acceleration Date or any day after the Optional Acceleration Date.

“**Loss Rebalancing Closing Level**” means the Index Closing Level on the Loss Rebalancing Valuation Date.

“**Loss Rebalancing Reset Date**” means the first Index Business Day immediately following a Loss Rebalancing Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”;
- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Principal Amount, intraday indicative value, Market Disruption Events, Business Days, Index Business Days, Exchange Business Days, the Index Factor, the Index Performance Ratio, the Index Valuation Level, the Financing Level, the Accrued Fees (including determining any successor to the LIBOR base rate), the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Fees, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable, the Acceleration Amount that we will pay you upon acceleration, the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, whether a Loss Rebalancing Event has occurred and whether any day is a Business Day, Index Business Day or an Exchange Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Security, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity, call or acceleration, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 noon, New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date, Acceleration Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Fees, the Redemption Amount and Redemption Fee Amount, if any, per Security, the Call Settlement Amount, if any, per Security, the Current Principal Amount, the Acceleration Amount, the Financing Level, and the Cash Settlement Amount, if any, per Security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid on the Stated Principal Amount of the Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on an Averaging Date (as defined below), the Index Closing Level for such Averaging Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing (the “**Deferred Averaging Date**”) with respect to the Index irrespective of whether, pursuant to such determination, the Deferred Averaging Date would fall on a date originally scheduled to be an Averaging Date. If the postponement described in the preceding sentence results in the Index Closing Level being calculated on a day originally scheduled to be an Averaging Date, for purposes of determining the Index Closing Level on any Averaging Date, the Security Calculation Agent or one of its affiliates, as the case may be, will apply the Index Closing Level for such Deferred Averaging Date (i) on the date(s) of the original Market Disruption Event and (ii) such Averaging Date. For example, if the applicable Measurement Period for purposes of calculating the Call Settlement Amount is based on the arithmetic mean of the Index Closing Levels on October 3, October 4, October 5, October 6 and October 7, and there is a Market Disruption Event with respect to the Index on October 3, but no other Market Disruption Event during such Measurement Period, then the Index Closing Level on October 4 will be used twice to calculate the Call Settlement Amount, and the Call Settlement Amount will be determined based on the arithmetic mean of the Index Closing Levels on October 4, October 4, October 5, October 6 and October 7. The same approach would be applied if there is a Market Disruption Event during any Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date or any Monthly Valuation Date or Loss Rebalancing Valuation Date, the Index Closing Level for such Redemption Valuation Date, Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable, will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on October 3 and there is a Market Disruption Event with respect to the Index on October 3, then the Index Closing Level on October 4 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on October 4.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the final Averaging Date or any Monthly Valuation Date, Redemption Valuation Date or Loss Rebalancing Valuation Date, as applicable, occurring more than three Index Business Days following the day originally scheduled to be such final Averaging Date or such Monthly Valuation Date, Redemption Valuation Date or Loss Rebalancing Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the third Index Business Day following the date originally scheduled to be the final Averaging Date or any Monthly Valuation Date, Redemption Valuation Date or Loss Rebalancing Valuation Date, as applicable, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such third Index Business Day but for such Market Disruption Event. If any Monthly Valuation Date or Loss Rebalancing Valuation Date is postponed as described above, the succeeding Monthly Reset Date or Loss Rebalancing Reset Date will occur on the next Index Business Day following the postponed Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable.

An “**Averaging Date**” means each of the Index Business Days during a Measurement Period, subject to adjustment as described herein.

Any of the following will be a Market Disruption Event with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities for trading in the Index Constituent Security, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging” of the applicable prospectus supplement.

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under “Description of Debt Securities We May Offer — Optional Tax Redemption” in “Medium-Term Notes, Series B” above. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the four Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the fourth Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above, under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor discontinues publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a "**successor index**"), and the Security Calculation Agent approves such index as a successor index, then the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination, Coupon Amounts and the amount payable at maturity, call, acceleration or upon early redemption and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the "**Substitute Index**"), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described herein as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, including the Coupon Amounts, Current Principal Amount, Current Indicative Principal Amount, Index Factor, intraday indicative value, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, or upon early redemption by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

An "**Index Replacement Event**" means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of units in the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or the units in the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties' ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after September 25, 2018 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of units in the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or the units in the Index constituents included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after September 25, 2018 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of units in the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or the units in the Index constituents included in the Index (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index or a successor index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the Index Closing Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Valuation Level, the Index Performance Ratio, the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Fees, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, the Acceleration Amount that we will pay you in the event of an optional acceleration upon minimum indicative value, if applicable, the Loss Rebalancing Closing Level, if any, the Monthly Initial Closing Level and all related payment terms based on the Index Closing Level calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (e.g., due to a split in the Index), which, in turn, causes the Index Closing Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor index as if it had not been modified (e.g., as if such split had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity, call or acceleration, or upon early redemption, will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day or a New York Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in “Medium-Term Notes, Series B” above.

Modified Business Day

As described in “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities”, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Cash Settlement Amount at Maturity,” “— UBS’s Call Right” and “— Early Redemption at the Option of the Holders” above.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover of the prospectus supplement at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B” above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participant.

11. ETRACS NYSE® Pickens CoreMidstream™ Index ETN due August 20, 2048

Specific Terms of the Securities

In this section, references to “holders” or “you” mean those who own the Securities registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes specific financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described under “Medium-Term Notes, Series B” above. The terms described here supplement those described under “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below. The Securities do not guarantee any return of principal at, or prior to, maturity or call, or upon early redemption. Instead, at maturity, you will receive a cash payment the amount of which will vary depending on the performance of the Index calculated in accordance with the formula set forth below and will be reduced by the Accrued Tracking Fee. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment on the Redemption Date equal to the Redemption Amount as described below under “— Early Redemption at the Option of the Holders.” If the amount so calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

If we elect to exercise our call right to redeem all of the Securities, subject to compliance with the procedures set forth below, for each Security you will receive a cash payment on the Call Settlement Date equal to the Call Settlement Amount, as described below under “— UBS’s Call Right.” If the amount so calculated is equal to or less than zero, the Call Settlement Amount will be zero and you will not receive a cash payment.

The Securities may pay a cash coupon during their term.

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the Reference Distribution Amount, calculated as of the corresponding Coupon Valuation Date (the “**Coupon Amount**”).

If the Reference Distribution Amount on such Coupon Valuation Date is zero, you will not receive any Coupon Amount on the related Coupon Payment Date.

The final Coupon Amount will be included in the Cash Settlement Amount.

The “**Coupon Payment Date**” means the 15th Index Business Day following each Coupon Valuation Date, provided that the final Coupon Payment Date will be the Maturity Date, subject to adjustment as described herein. The first Coupon Payment Date will be October 22, 2018.

The “**Coupon Record Date**” means the ninth Index Business Day following each Coupon Valuation Date.

The “**Coupon Ex-Date**,” with respect to a Coupon Amount, means the first Trading Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the Trading Day prior to the applicable Coupon Record Date.

The “**Coupon Valuation Date**” means the 30th of March, June, September and December of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date, subject to adjustment as described herein. The first Coupon Valuation Date will be October 1, 2018.

The “**Reference Distribution Amount**” means:

- (a) as of the first Coupon Valuation Date, an amount equal to the gross cash dividends or distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to any Index constituent, for those cash dividends or distributions whose “ex-dividend date” occurs during the period from and excluding the Initial Trade Date to and including the first Coupon Valuation Date; and

- (b) as of any other Coupon Valuation Date, an amount equal to the gross cash dividends or distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to any Index constituent for those cash dividends or distributions whose “ex-dividend date” occurs during the period from and excluding the immediately preceding Coupon Valuation Date to and including such Coupon Valuation Date.

Notwithstanding the foregoing, with respect to cash dividends or distributions for an Index constituent which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index constituent fails to pay the dividend or distribution to holders of such Index constituent by the scheduled payment date for such dividend or distribution, such dividend or distribution will be assumed to be zero for the purposes of calculating the applicable Reference Distribution Amount.

The “**Reference Holder**” is, as of any date of determination, a hypothetical holder of a number of units or shares, as applicable, of each Index constituent equal to (i) the published unit weighting of that Index constituent as of that date, divided by (ii) the product of (a) the Index Divisor as of that date, and (b) the Index Closing Level on the prior calendar day *divided by* the Current Principal Amount on the prior calendar day.

“**record date**” means, with respect to a distribution on an Index constituent, the date on which a holder of the Index constituent must be registered as a unitholder or shareholder of such Index constituent in order to be entitled to receive such distribution.

“**ex-dividend date**” means, with respect to a distribution on an Index constituent, the first Business Day on which transactions in such Index constituent trade on the Primary Exchange without the right to receive such distribution.

Cash Settlement Amount at Maturity

The “Maturity Date” is August 20, 2048, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called or redeemed, you will receive at maturity a cash payment equal to:

- (a) the product of
- (i) the Current Principal Amount as of the calendar day immediately preceding the Calculation Date and
 - (ii) the Index Factor as of the last Index Business Day in the Final Measurement Period, *plus*
- (b) the final Coupon Amount if on such last Index Business Day in the Final Measurement Period the Coupon Ex-Date with respect to the final Coupon Amount has not yet occurred, *minus*
- (c) the Accrued Tracking Fee as of the last Index Business Day in the Final Measurement Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Final Measurement Period, if any.

We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment at maturity will be zero.

You may lose some or all of your investment at maturity. The negative effect of the Accrued Tracking Fee will reduce your final payment. If the increase in the level of the Index is insufficient to offset the negative effect of the Accrued Tracking Fee (less any Coupon Amounts and any Stub Reference Distribution Amount, as applicable, you may be entitled to receive), or if the final Index level is less than the Initial Index Level (or the Index level at the time you purchase the Securities, as applicable), you may lose some or all of your investment at maturity.

The “**Current Principal Amount**” for each Security will equal:

- (a) on the Initial Trade Date, \$25.00.
- (b) on each subsequent calendar day, to but excluding the first day of an applicable Measurement Period:
(Current Principal Amount on the previous calendar day × Index Factor) — Accrued Tracking Fee
- (c) on the last day of an applicable Measurement Period:
(Current Principal Amount on the calendar day immediately preceding the first day of the applicable Measurement Period × Index Factor) — Accrued Tracking Fee

To the extent the Current Principal Amount must be calculated during a Measurement Period, the Current Principal Amount on any day during the Measurement Period shall be calculated as if such day is the last day of the applicable Measurement Period and in such circumstances, clause (2) of the “Index Factor” definition (below) shall be determined by calculating (i) (A) (the Index Closing Level on each prior Trading Day, if any, of the applicable Measurement Period) + (the Index Closing Level on such determination date within the applicable Measurement Period × the number of Trading Days from and including such date of determination to, and including, the last Trading Day within the applicable Measurement Period), *divided by* (B) the number of scheduled Trading Days in the applicable Measurement Period; and (ii) dividing the result obtained under (i) above by the Index Closing Level on the Index Business Day immediately preceding the first day of the applicable Measurement Period

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

The “**Index Factor**” will equal:

- (1) on any Index Business Day prior to an applicable Measurement Period:
Index Closing Level on such Index Business Day divided by the Index Closing Level on the immediately preceding Index Business Day.
- (2) on the last Index Business Day in a Measurement Period:
 - (i) the arithmetic mean of the Index Closing Levels measured on each Index Business Day during the applicable Measurement Period divided by
 - (ii) the Index Closing Level on the Index Business Day immediately preceding the first day of the applicable Measurement Period.

The Index Factor will equal one (1) on any calendar day that is not an Index Business Day.

The “**Current Indicative Value**” as determined by the Security Calculation Agent, means, as of any time and date of determination, an amount per Security equal to:

(Current Principal Amount on the previous calendar day \times Index Factor, calculated using the intraday indicative value of the Index) — Accrued Tracking Fee + Coupon Amount with respect to the Coupon Valuation Date immediately preceding the date of determination if on the date of determination the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred + Reference Distribution Amount, calculated as if such time and date of determination is a Coupon Valuation Date.

The actual trading price of the Securities in the secondary market may vary significantly from the indicative value.

On any day within a Measurement Period, the Current Indicative Value of the Securities shall be calculated as if such day is the last day of the applicable Measurement Period and in such circumstances, clause (2) of the “Index Factor” definition shall be determined by calculating (i) (A) (the Index Closing Level on each prior Trading Day, if any, of the applicable Measurement Period) + (the Index Closing Level on such determination date within the applicable Measurement Period \times the number of Trading Days from and including such date of determination, to and including, the last Trading Day within the applicable Measurement Period), (B) the number of scheduled Trading Days in the applicable Measurement Period, and (ii) dividing the results obtained under (i) above by the Index Closing level on the Index Business Day immediately preceding the first day of the applicable Measurement Period.

The “**Index Closing Level**” is the closing level of the Index as reported on the NYSE and Bloomberg; provided, however, that if the closing level of the Index as reported on the NYSE (or any successor) differs from the closing level of the Index as reported on Bloomberg (or any successor), then the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The “Index Closing Level” on the Initial Trade Date (i.e. the Initial Index Level) was 1313.27.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently ICE Data Indices, LLC, which is also the Index Sponsor.

The “**Index Divisor**,” as of any date of determination, is the divisor used by the Index Calculation Agent to calculate the level of the Index.

The Securities are subject to an “**Accrued Tracking Fee**” per Security equal to 0.85% per annum, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- (b) On any subsequent calendar day prior to the beginning of a Measurement Period, the Accrued Tracking Fee is equal to $(0.85\% / 365) \times$ Closing Indicative Value on the previous calendar day.
- (c) On the last day of an applicable Measurement Period, the Accrued Tracking Fee is equal to $(0.85\% \times$ a fraction, the numerator of which equals the number of calendar days from and including the first day of the applicable Measurement Period to but excluding the last day of the applicable Measurement Period and the denominator of which equals 365) \times Closing Indicative Value as of the calendar day immediately preceding the first day of the applicable Measurement Period.

The Accrued Tracking Fee takes into account the performance of the Index, as reflected in the Closing Indicative Value.

The “**Final Measurement Period**” means the five (5) Index Business Days from and including the Calculation Date, subject to adjustment as described under “— Market Disruption Event.”

“**Measurement Period**” means the Final Measurement Period or the Call Measurement Period, as applicable.

The “**Stub Reference Distribution Amount**” means, as of the last Index Business Day in the Final Measurement Period or Call Measurement Period, as applicable, an amount equal to the gross cash dividends or distributions that a Reference Holder would have been entitled to receive in respect of the Index constituents held by such Reference Holder on the “record date” with respect to any Index constituent, for those cash dividends or distributions whose “ex-dividend date” occurs during the period from and excluding the immediately preceding Coupon Valuation Date, to and including the last Index Business Day in the Final Measurement Period or Call Measurement Period as applicable, provided, that for the purpose of calculating the Stub Reference Distribution Amount, the Reference Holder will be deemed to hold 4/5ths, 3/5ths, 2/5ths and 1/5th of the shares/units of each Index constituent it would otherwise hold on the second, third, fourth and fifth Index Business Day, respectively, in such Final Measurement Period or Call Measurement Period.

The “**Calculation Date**” means August 12, 2048, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

“**Index Business Day**” means any day on which the Primary Exchange and each Related Exchange are scheduled to be open for trading.

“**Business Day**” means any day that is not a Saturday, a Sunday or a day on which banking institutions in The City of New York, generally, are authorized or obligated by law, regulation or executive order to close.

“**Trading Day**” means any day on which the primary exchange for trading in the Securities is open for trading in the Securities.

“**Primary Exchange**” means, with respect to each Index constituent or each constituent underlying a successor index, the primary exchange or market of trading such Index constituent or such constituent underlying a successor index.

“**Related Exchange**” means, with respect to each Index constituent or each constituent underlying a successor index, each exchange or quotation system where trading has a material effect (as determined by the Security Calculation Agent) on the overall market for futures or options contracts relating to such Index constituent or such constituent underlying a successor index.

Underlying Index

The NYSE® Pickens Core Midstream™ Index measures the performance of the common stock of corporations and units of master limited partnerships (“**MLPs**”) which represent U.S. midstream energy fundamentals, agnostic of entity structure. The Index is calculated by ICE Data Indices, LLC (the “**Index Sponsor**”) using a modified free-float market capitalization weighted methodology. We refer to the corporations, MLPs and any other entities included in the Index as the “**Index constituents**.” The Index constituents earn the majority of their operating income from midstream energy activities (gathering and processing, liquefaction, pipeline transportation, rail terminating and storage of energy commodities).

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 4:00 p.m., New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on any applicable Index Business Day, provided that you request that we redeem a minimum of 50,000 Securities. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities. We reserve the right from time to time to reduce or waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be August 27, 2018 and the final Redemption Date will be August 13, 2048. If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index constituents, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

If the amount calculated above is less than or equal to zero, the payment upon early redemption will be zero. We reserve the right from time to time to reduce or waive the Redemption Fee Amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$$(0.125\% \times \text{Closing Indicative Value for the applicable Security as of such Valuation Date}).$$

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

Closing Indicative Value as of the Redemption Valuation Date — Redemption Fee Amount.

We refer to this cash payment as the “**Redemption Amount.**”

If the amount calculated above is less than or equal to zero, the payment upon early redemption will be zero. We reserve the right from time to time to reduce or waive the Redemption Fee Amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

You may lose some or all of your investment upon early redemption. The combined negative effect of the Accrued Tracking Fee and the Redemption Fee Amount will reduce your final Redemption Amount. If the level of the Index does not increase by an amount sufficient to offset the combined negative effect of the Accrued Tracking Fee and the Redemption Fee Amount (less any Coupon Amounts you may be entitled to receive), or if the final Index level is less than the Initial Index Level (or the Index level at the time you purchase the Securities, as applicable), you may lose some or all of your investment upon early redemption.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice,**” to UBS via email no later than 4:00 p.m. (New York City time) on the Index Business Day on which you elect to exercise your redemption right. If we receive your notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation,**” to us via e-mail in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 4:00 p.m. (New York City time), or your confirmation of redemption after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your notice will not be effective, you will not be able to redeem your Securities until another date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

We reserve the right from time to time to reduce or waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to the benefit of any such waiver or election to accelerate the Redemption Valuation Date.

UBS's Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen (18) calendar days' prior notice to the holders of the Securities (which notice may be provided via press release), such redemption to occur on any Business Day that we may specify on or after August 25, 2019 through and including the Maturity Date (the “**Call Settlement Date**”). Upon early redemption in the event we exercise this right, you will receive a cash payment equal to:

- (a) the product of
 - (i) the Current Principal Amount as of the calendar day immediately preceding the Call Measurement Period and
 - (ii) the Index Factor as of the last Index Business Day in the Call Measurement Period, *plus*
- (b) the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Call Valuation Date if on the last Index Business Day in the Call Measurement Period the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *minus*
- (c) the Accrued Tracking Fee as of the last Index Business Day in the Call Measurement Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Call Measurement Period, if any.

We refer to this cash payment as the “**Call Settlement Amount.**”

If the amount calculated above is equal to or less than zero, the payment upon exercise of the UBS Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the second Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index constituents, such Call Valuation Date may be postponed as described under “— Market Disruption Event.”

The “**Call Measurement Period**” means:

- (a) if the Market Value of Securities outstanding as at the close of business on the Trading Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is less than \$100,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”; or
- (b) if the Market Value of Securities outstanding as at the close of business on the Trading Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is equal to or greater than \$100,000,000, the five (5) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”

The “**Market Value**” of the Securities outstanding as of the close of business on the Trading Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right will equal:

Current Indicative Value as of such Trading Day × number of Securities outstanding as reported by PYPESO <Index> on Bloomberg.

The “**Call Valuation Date**” means the date disclosed as such by UBS in its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right.

In any notice to holders exercising the UBS Call Right, we will specify how many days are included in the Call Measurement Period.

You may lose some or all of your investment upon a call. The negative effect of the Accrued Tracking Fee will reduce your final payment. If the level of the Index does not increase by an amount sufficient to offset the negative effect of the Accrued Tracking Fee (less any Coupon Amounts and any Stub Reference Distribution Amount, as applicable, you may be entitled to receive), or if the final Index level is less than the Initial Index Level (or the Index level at the time you purchase the Securities, as applicable), you may lose some or all of your investment upon UBS’s exercise of its call right.

Some of the defined terms used in this section have different applications when used in determining the Redemption Amount. For the definition of the terms relevant to early redemption, please refer to “— Early Redemption at the Option of the Holders” above.

Security Calculation Agent

UBS Securities LLC will act as the “Security Calculation Agent.” The Security Calculation Agent will determine, among other things, the Current Principal Amount, Current Indicative Value, the Index Factor, the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Tracking Fee, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Final Measurement Period, the Coupon Payment Dates, the Coupon Valuation Dates, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Valuation Date, the Redemption Amount, if any, that we will pay you upon redemption, if applicable, the Redemption Date, the Call Settlement Date, the Call Valuation Date, the Call Measurement Period and the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, and whether any day is a Business Day or Index Business Day. The Security Calculation Agent will also be responsible for determining whether a Market Disruption Event has occurred, whether the Index has been discontinued and whether there has been a material change in the Index. All determinations made by the Security Calculation Agent will be at the sole discretion of the Security Calculation Agent and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different Security Calculation Agent from time to time without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or call, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 p.m. (New York City time) on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Tracking Fee, the Redemption Amount and Redemption Fee Amount, if any, per security, the Call Settlement Amount, if any, per security, and the Cash Settlement Amount, if any, per security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid on the aggregate principal amount of Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Disrupted Day (as defined below) exists with respect to an Index constituent on an Averaging Date (as defined below) or on a Redemption Valuation Date, the share/unit price and published share/unit weighting with respect to such Index constituent (and only with respect to such Index constituent) for such Averaging Date or Redemption Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day that is not a Disrupted Day (the “**Deferred Averaging Date**”) with respect to such Index constituent irrespective of whether pursuant to such determination, the Deferred Averaging Date would fall on a date originally scheduled to be an Averaging Date. If the postponement described in the preceding sentence results in the share/unit price of a particular Index constituent being calculated on a day originally scheduled to be an Averaging Date, for purposes of determining the Index Closing Level on the Index Business Days during the Final Measurement Period or Call Measurement Period, or on the Redemption Valuation Date, as applicable, the Security Calculation Agent or one of its affiliates, as the case may be, will apply the share/ unit price and the published share/unit weighting with respect to such Index constituent for such Deferred Averaging Date to the calculation of the Index Closing Level (i) on the date(s) of the original disruption with respect to such Index constituent and (ii) such Averaging Date. For example, if the Final Measurement Period or Call Measurement Period, as applicable, for purposes of calculating the Cash Settlement Amount or Call Settlement Amount, respectively, is based on the arithmetic mean of the Index Closing Levels on June 6, 2019, June 7, 2019, June 8, 2019, June 9, 2019 and June 10, 2019 and there is a Market Disruption Event for an Index constituent on June 6, 2019, but no other Market Disruption Event during the Final Measurement Period or Call Measurement Period, as applicable, then the share/ unit price for such disrupted Index constituent on June 7, 2019 will be used more than once to calculate the Cash Settlement Amount or Call Settlement Amount, respectively, and such Cash Settlement Amount or Call Settlement Amount, as applicable, will be determined based on the arithmetic mean of the share/ unit price for such disrupted Index constituent on June 7, 2019, June 7, 2019, June 8, 2019, June 9, 2019 and June 10, 2019.

If the Redemption Valuation Date for purposes of calculating a Redemption Amount is based on the Index Closing Level on June 6, 2019 and there is a Market Disruption Event for an Index constituent on June 6, 2019, then the share/unit price for such disrupted Index constituent on June 7, 2019 will be used to calculate the Redemption Amount.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the final Averaging Date or the Redemption Valuation Date, as applicable, with respect to any Index constituent occurring more than three (3) Index Business Days following the day originally scheduled to be such final Averaging Date or Redemption Valuation Date. If the third Index Business Day following the date originally scheduled to be the final Averaging Date, or the Redemption Valuation Date, as applicable, is not an Index Business Day or is a Disrupted Day with respect to such Index constituent, the Security Calculation Agent or one of its affiliates will determine the share/unit price and share weighting with respect to any Index constituent required to be determined for the purpose of calculating the applicable Index Closing Level based on its good faith estimate of the share/unit price and share/unit weighting of each such Index constituent that would have prevailed on the Primary Exchange on such third Index Business Day but for such suspension or limitation.

An “**Averaging Date**” means each of the Index Business Days during the Final Measurement Period or Call Measurement Period, as applicable, subject to adjustment as described herein.

A “**Disrupted Day**” with respect to any Index constituent is any Index Business Day on which the Primary Exchange or any Related Exchange fails to open for trading during its regular trading session or on which a Market Disruption Event has occurred and is continuing, and, in both cases, the occurrence of which is determined by the Security Calculation Agent to have a material effect on the share/unit price of such Index constituent.

With respect to an Index constituent, a “**Market Disruption Event**” means:

- (a) the occurrence or existence of a condition specified below:
 - (i) any suspension, absence or limitation of trading on the Primary Exchange for trading in the Index constituent, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise,
 - (ii) any suspension, absence or limitation of trading on the Related Exchange for trading in futures or options contracts related to the Index constituent, whether by reason of movements in price exceeding limits permitted by such Related Exchange or otherwise, or
 - (iii) any event (other than an event described in (b) below) that disrupts or impairs (as determined by the Security Calculation Agent) the ability of market participants in general (A) to effect transactions in, or obtain market values for, the relevant Index constituent or (B) to effect transactions in, or obtain market values for, futures or options contracts relating to the relevant Index constituent; or

- (b) the closure on any Index Business Day of the Primary Exchange or any Related Exchange prior to its Scheduled Closing Time unless such earlier closing time is announced by the Primary Exchange or such Related Exchange at least one hour prior to the earlier of (i) the actual closing time for the regular trading session on the Primary Exchange or such Related Exchange on such Index Business Day and (ii) the submission deadline for orders to be entered into the Primary Exchange or such Related Exchange system for execution at the close of trading on such Index Business Day;
- in each case determined by the Security Calculation Agent in its sole discretion; and
- (c) a determination by the Security Calculation Agent in its sole discretion that the event described above materially interfered with our ability or the ability of any of our affiliates to adjust or unwind all or a material portion of any hedge with respect to the Securities.

For purposes of the above definition:

- (i) a limitation on the hours or number of days of trading will not constitute a Market Disruption Event if it results from an announced change in the regular business hours of the Primary Exchange or Related Exchange, and
- (ii) for purposes of clause (i) above, limitations pursuant to the rules of any Primary Exchange or Related Exchange similar to NYSE Rule 80B or Nasdaq Rule 4120 (or any applicable rule or regulation enacted or promulgated by any other self-regulatory organization or any government agency of scope similar to NYSE Rule 80B or Nasdaq Rule 4120 as determined by the Security Calculation Agent) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading.

“**Scheduled Closing Time**” means, with respect to the Primary Exchange or the Related Exchange, on any Index Business Day, the scheduled weekday closing time of the Primary Exchange or such Related Exchange on such Index Business Day, without regard to after hours or any other trading outside of the regular trading session hours.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described in “Medium-Term Notes, Series B” under “Description of Debt Securities We May Offer — Optional Tax Redemption. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.” In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the four Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the fourth Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above, under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, as determined by the Security Calculation Agent, in U.S. dollars for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, plus
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two (2) Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two (2) Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index; Alteration of Method of Calculation

If (i) the Index Sponsor discontinues publication of or otherwise fails to publish the Index, (ii) our license agreement with the Index Sponsor terminates, or (iii) the Index Sponsor does not make the Index constituents, their share/unit weighting and/or the Index Divisor available to the Security Calculation Agent, and, in each case, the Index Sponsor or another entity publishes a successor or substitute index licensed to UBS that the Security Calculation Agent determines to be comparable to the discontinued Index and for which the Index constituents, their share/unit weighting, and/or the Index Divisor are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), then the Security Calculation Agent will determine the Coupon Amounts, Current Principal Amounts, Index Factor, Current Indicative Value, Accrued Tracking Fee, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, or upon early redemption by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor discontinues publication of the Index, if our license agreement with the Index Sponsor terminates or the Index Sponsor does not make the Index constituents, their share/unit weightings and/or Index Divisor available to the Security Calculation Agent prior to, and such discontinuation or unavailability is continuing on the Calculation Date or any Index Business Day during the Final Measurement Period or Call Measurement Period, or on the Redemption Valuation Date, as applicable, or any other relevant date on which the Index level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during the Final Measurement Period or Call Measurement Period, or on the Redemption Valuation Date, as applicable, or any other relevant date on which the Index level is to be determined, then the Security Calculation Agent will determine the relevant Index level using the Index level and published share/unit weighting of each Index constituent included in the Index or successor index, as applicable, on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described herein as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, including the Coupon Amounts, Current Principal Amounts, Index Factor, Current Indicative Value, Accrued Tracking Fee, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, or upon early redemption by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of shares/units in the Index constituents included in the Index or options, futures, swaps or other derivatives on the Index or the shares/units in the Index constituents included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after August 20, 2018 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of shares/units in the Index constituents included in the Index or options, futures, swaps or other derivatives on the Index or the shares/units in the Index constituents included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after August 20, 2018 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of shares/units in the Index constituents included in the Index or options, futures, swaps or other derivatives on the Index or the shares/units in the Index constituents included in the Index (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index or a successor index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the Index level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the Index level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index levels for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Current Principal Amount, the Current Indicative Value, the Index Factor, the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Tracking Fee, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon early redemption, if applicable, and the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, based on the relevant Index Closing Level calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (e.g., due to a split in the Index), which, in turn, causes the Index level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index level for the Index or such successor index as if it had not been modified (e.g., as if such split had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference to the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or call, or upon early redemption will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in "Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities" in "Medium-Term Notes, Series B" above.

Modified Business Day

As described in "Medium-Term Notes, Series B" under "Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities", any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under "— Cash Settlement Amount at Maturity," "— UBS's Call Right" and "— Early Redemption at the Option of the Holders" above.

Reissuances or Reopened Issues

We may, at our sole discretion, "reopen" or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed such amount any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to "Description of Debt Securities We May Offer — Amounts That We May Issue" in "Medium-Term Notes, Series B" above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC's settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

12. ETRACS Monthly Pay 2xLeveraged US High Dividend Low Volatility ETN Series B due October 21, 2049

Specific Terms of the Securities

In this section, references to “holders” or “you” mean those who own the Securities registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of UBS AG debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity, call or acceleration, or upon early redemption. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the Reference Distribution Amount, calculated as of the corresponding Coupon Valuation Date (the “**Coupon Amount**”).

If the Reference Distribution Amount on such Coupon Valuation Date is zero, you will not receive any Coupon Amount on the related Coupon Payment Date. The final Coupon Amount will be included in the Cash Settlement Amount if on the last Index Business Day in the Final Measurement Period the Coupon Ex-Date with respect to the final Coupon Amount has not yet occurred.

The “**Coupon Payment Date**” means the fifteenth (15th) Index Business Day following each Coupon Valuation Date. The final Coupon Payment Date will be the Maturity Date, subject to adjustment as described herein. The first Coupon Payment Date will be November 20, 2019, subject to adjustment as provided herein.

The “**Coupon Record Date**” means the ninth Index Business Day following each Coupon Valuation Date.

The “**Coupon Ex-Date**,” with respect to a Coupon Amount, means the first Exchange Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the Exchange Business Day prior to the applicable Coupon Record Date.

The “**Coupon Valuation Date**” means the 30th day of each month, and the 28th day of February of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date, subject to adjustment described herein. The first Coupon Valuation Date will be October 30, 2019.

The “**Reference Distribution Amount**” means (i) as of the first Coupon Valuation Date, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the record date with respect to any Index Constituent Security, for those cash distributions whose ex-dividend date occurs during the period from, but excluding, the Initial Trade Date to, and including, the first Coupon Valuation Date; (ii) as of any other Coupon Valuation Date (other than the Calculation Date), an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the record date with respect to any Index Constituent Security for those cash distributions whose ex-dividend date occurs during the period from, but excluding, the immediately preceding Coupon Valuation Date to, and including, such Coupon Valuation Date; and (iii) as of the Calculation Date, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the record date with respect to any Index Constituent Security for those cash

distributions whose ex- dividend date occurs during the period from, but excluding, the immediately preceding Coupon Valuation Date to, but excluding, the Calculation Date.

Notwithstanding the foregoing, with respect to cash distributions for an Index Constituent Security which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index Constituent Security fails to pay the distribution to holders of such Index Constituent Security by the scheduled payment date for such distribution, such distribution will be assumed to be zero for the purposes of calculating the applicable Reference Distribution Amount.

The “**Reference Holder**” is, as of any date of determination, a hypothetical holder of a number of units of each Index Constituent Security equal to two *times* (a) the product of (i) the published unit weighting of that Index Constituent Security as of that date and (ii) the Current Principal Amount, *divided* by (b) the Monthly Initial Closing Level or Loss Rebalancing Closing Level, whichever is more recent.

“**record date**” means, (i) with respect to a distribution on an Index Constituent Security, the date on which a holder of the Index Constituent Security must be registered as a stockholder/unitholder of such Index Constituent Security in order to be entitled to receive such distribution and (ii) with respect to any split or reverse split, the tenth Business Day after the announcement date.

“**ex-dividend date**” means, with respect to a distribution on an Index Constituent Security, the first Business Day on which transactions in such Index Constituent Security trade on the Primary Exchange without the right to receive such distribution.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is October 21, 2049, which will be the second Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated, you will receive at maturity a cash payment equal to:

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the last Index Business Day in the Final Measurement Period, *plus*
- (b) the final Coupon Amount, if on the last Index Business Day in the Final Measurement Period the Coupon Ex-Date with respect to the final Coupon Amount has not yet occurred, *minus*
- (c) the Accrued Fees as of the last Index Business Day in the Final Measurement Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Final Measurement Period, if any.

We refer to this cash payment as the “**Cash Settlement Amount**.”

If the amount so calculated is equal to or less than zero, the payment at maturity will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation.

$$\begin{array}{ccccccc}
 \text{Current} & & & & & & \text{Stub} \\
 \text{Principal} & & & & & & \text{Reference} \\
 \text{Amount} & + & \text{Final} & - & \text{Accrued Fees} & + & \text{Distribution} \\
 \times & & \text{Coupon} & & & & \text{Amount} \\
 \text{Index Factor} & & \text{Amount} & & & & \\
 \end{array}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts and/or any Stub Reference Distribution Amount, as applicable, you may be entitled to receive), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment at maturity.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right and, upon the occurrence of an acceleration event, the Securities may be accelerated and redeemed by UBS, at its option. See “— UBS’s Call Right” and “— Optional Acceleration Upon Minimum Indicative Value” below.

The Stated Principal Amount of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount.

The Current Principal Amount for the period from the Initial Settlement Date to October 31, 2019 (such period, the “**initial calendar month**”) will equal \$25.00 per Security (unless a Loss Rebalancing Event occurs during the initial calendar month). For each subsequent calendar month, the Current Principal Amount for each Security will be reset as follows on the Monthly Reset Date:

$$\text{New Current Principal Amount} = \text{previous Current Principal Amount} \times \text{Index Factor on the applicable Monthly Valuation Date} - \text{Accrued Fees on the applicable Monthly Valuation Date}$$

In the event of a Loss Rebalancing Event, the Current Principal Amount will be reset on the applicable Loss Rebalancing Reset Date as described below under “— Loss Rebalancing Events”.

If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, then the Current Principal Amount will not be reset on such date and no further Monthly Reset Dates will occur during the term of the Securities.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

For each calendar month, the “**Monthly Reset Date**” is the first Exchange Business Day of that month beginning on November 1, 2019 and ending on October 1, 2049, subject to adjustment as described under “— Market Disruption Event.” If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, as applicable, then the Current Principal Amount will not be reset on such date and no further Monthly Reset Dates will occur during the term of the Securities.

For each Monthly Reset Date, the “**Monthly Valuation Date**” is the last Exchange Business Day of the previous calendar month beginning on October 31, 2019 and ending on September 30, 2049, subject to adjustment as described under “— Market Disruption Event.” If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, then the Current Principal Amount will not be reset on such date and no further Monthly Reset Dates or Monthly Valuation Dates will occur during the term of the Securities.

The “**Index Factor**” is: $1 + (2 \times \text{Index Performance Ratio})$.

The “**Index Performance Ratio**” may be calculated on multiple dates of determination during any applicable calendar month. The formula used to calculate the Index Performance Ratio on any date of determination depends on the number of Loss Rebalancing Events that have occurred in the applicable calendar month.

If no Loss Rebalancing Events have occurred in the applicable calendar month, then on any Index Business Day during a Measurement Period, or on the Monthly Valuation Date, any Redemption Valuation Date, the first Loss Rebalancing Valuation Date of the applicable calendar month or any other date of determination, as applicable, the Index Performance Ratio will be equal to:

$$\frac{\text{Index Valuation Level} - \text{Monthly Initial Closing Level}}{\text{Monthly Initial Closing Level}}$$

where the “**Monthly Initial Closing Level**” for the initial calendar month is 230.9117, the Index Closing Level on October 24, 2019. For each subsequent calendar month, the Monthly Initial Closing Level will equal the Index Closing Level on the Monthly Valuation Date for the previous calendar month. For example, the Monthly Initial Closing Level for November 2019 will equal the Index Closing Level on October 31, 2019, subject to adjustment. If a day that would otherwise be a Monthly Reset Date falls within a Measurement Period, then the Current Principal Amount will not be reset on such date and the Monthly Initial Closing Level for the then-current calendar month will remain the same as it was for the immediately preceding calendar month.

If one or more Loss Rebalancing Events have occurred during the applicable calendar month, then on any Index Business Day during a Measurement Period, or on the Monthly Valuation Date, any Redemption Valuation Date, on each Loss Rebalancing Valuation Date after the first Loss Rebalancing Valuation Date in the applicable calendar month or on any other date of determination, as applicable, the Index Performance Ratio will be equal to:

$$\frac{\text{Index Valuation Level} - \text{the most recent Loss Rebalancing Closing Level}}{\text{the most recent Loss Rebalancing Closing Level}}$$

The “**Index Closing Level**” will equal the closing level of the Index on any date of determination, as reported on the NYSE and Bloomberg L.P.

The “**Index Valuation Level**”, as determined by the Security Calculation Agent will equal the arithmetic mean of the Index Closing Levels measured on each Index Business Day during the applicable Measurement Period, or the Index Closing Level on any Monthly Valuation Date, Loss Rebalancing Valuation Date or Redemption Valuation Date, provided that if the Redemption Valuation Date falls in any Measurement Period, for the purposes of calculating the Index Performance Ratio as of the Redemption Valuation Date, the Index Valuation Level on any date of determination during such Measurement Period shall equal (a) $1/5 \text{ times}$ (b) (i) the sum of the Index Closing Levels on each Index Business Day from, and including, the first Index Business Day of the applicable Measurement Period, to, and including, the date of determination, *plus* (ii) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such Measurement Period, *times* the Index Closing Level on such date of determination.

“**Measurement Period**” means the Final Measurement Period, Call Measurement Period or Acceleration Valuation Period, as applicable.

The “**intraday indicative value**”, or “**Indicative Value**” is an amount per Security, as determined by the Security Calculation Agent as of any date of determination equal to (Current Principal Amount on the previous calendar day \times Index Factor, calculated using the intraday indicative value of the Index) — Accrued Fees + Coupon Amount with respect to the Coupon Valuation Date immediately preceding the date of determination if on the date of determination the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred + Reference Distribution Amount, calculated as if such time and date of determination is a Coupon Valuation Date.

The “**Current Indicative Principal Amount**”, is an amount per Security, as determined by the Security Calculation Agent as of any date of determination, equal to the product of (i) the Current Principal Amount and (ii) the Index Factor as of such date, using the Index Closing Level as of such date as the Index Valuation Level.

The “**Accrued Fees**” as of any date of determination means the sum of (1) the Accrued Tracking Fee as of such date and (2) the Accrued Financing Charges as of such date.

The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to 0.
- (b) On the initial Monthly Valuation Date (or if applicable, on a Loss Rebalancing Date that occurs prior to the initial Monthly Valuation Date), the Accrued Tracking Fee is an amount equal to the product of: (a) the Annual Tracking Fee as of the initial Monthly Valuation Date and (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the Initial Trade Date to, and including, the initial Monthly Valuation Date (or Loss Rebalancing Date, as applicable), and the denominator of which is 365.
- (c) On any subsequent Monthly Valuation Date other than the Initial Monthly Valuation Date or on any Loss Rebalancing Date, the Accrued Tracking Fee is an amount equal to the product of (a) the Annual Tracking Fee as of such Monthly Valuation Date or Loss Rebalancing Date, as the case may be, and (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Date, whichever is more recent), to, and including, such Monthly Valuation Date or Loss Rebalancing Date, as the case may be, and the denominator of which is 365.
- (d) On the last Exchange Business Day of an applicable Measurement Period, or as of the Redemption Valuation Date, as applicable, the Accrued Tracking Fee is an amount equal to the product of (a) the Annual Tracking Fee calculated as of the last Exchange Business Day of the applicable Measurement Period, or as of the Redemption Valuation Date, as applicable, and (b) a fraction, the numerator of which is the total number of calendar days from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Date, whichever is more recent), to, and including, (i) such last Exchange Business Day of such Measurement Period, or (ii) such Redemption Valuation Date (or, if the Optional Acceleration Date or Redemption Valuation Date occurs prior to the initial Monthly Valuation Date, the period from, and excluding, the Initial Trade Date), as applicable, and the denominator of which is 365.

The “**Annual Tracking Fee**” is, as of any date of determination, an amount per Security equal to the product of (i) the Annual Tracking Rate and (ii) the Current Indicative Principal Amount as of the immediately preceding Index Business Day.

The “**Annual Tracking Rate**” is 0.85%. The Securities are subject to “**Accrued Financing Charges**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Charge for each Security is equal to \$0.
- (b) On the initial Monthly Valuation Date (or if applicable, on a Loss Rebalancing Date that occurs prior to the initial Monthly Valuation Date), the Accrued Financing Charge for each Security will equal (a) the aggregate sum of (i) the Financing Level as of each date starting from, but excluding, the Initial Trade Date, to and including the initial Monthly Valuation Date (or Loss Rebalancing Date, whichever is more recent) *times* (ii) the Financing Rate as of such date, *divided by* (b) 360.
- (c) On any subsequent Monthly Valuation Date, the Accrued Financing Charge for each Security will equal (a) the aggregate sum of (i) the Financing Level as of each date starting from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Valuation Date, whichever is more recent), to and including, the then current Monthly Valuation Date *times* (ii) the Financing Rate as of such date, *divided by* (b) 360.
- (d) On the last Index Business Day of an applicable Measurement Period, or as of the Redemption Valuation Date, as applicable, the Accrued Financing Charge for each Security will equal (a) the aggregate sum of (i) the Financing Level as of each date starting from, but excluding, the immediately preceding Monthly Valuation Date (or Loss Rebalancing Valuation Date, or, if the Redemption Valuation Date falls in the Initial Calendar Month, the Initial Trade Date, whichever is more recent), to, and including such last Index Business Day in such Measurement Period, or such Redemption Valuation Date, as applicable, *times* (ii) the Financing Rate as of such date, *divided by* (b) 360.

The “**Financing Level**” is, as of any date of determination, an amount that equals the Current Principal Amount.

The “**Financing Rate**” will equal the sum of (a) the “**Financing Spread**” of 0.80% and (b) the London interbank offered rate (British Banker’s Association) for three-month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Calculation Agent) (“**LIBOR**”), as of 11:00 a.m., London time, on the day that is two London business days prior to the immediately preceding Monthly Valuation Date.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry-accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London business day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The Accrued Financing Charges seek to compensate UBS for providing investors with the potential to receive a leveraged participation in movements in the Index Closing Level and are intended to approximate the monthly financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Securities.

The “**Final Measurement Period**” means the five Index Business Days from, and including, the Calculation Date, subject to adjustment as described under “— Market Disruption Event.”

The “**Stub Reference Distribution Amount**” means, as of the last Index Business Day in a Measurement Period, an amount equal to the gross cash distributions that a Reference Holder would have been entitled to receive in respect of the Index Constituent Securities held by such Reference Holder on the “record date” with respect to any Index Constituent Security, for those cash distributions whose “ex-dividend date” occurs during the period from, but excluding, the immediately preceding Coupon Valuation Date (or if such Redemption Valuation Date or the Optional Acceleration Date occurs prior to the first Coupon Valuation Date, the period from but excluding the Initial Trade Date) to, and including, such last Index Business Day of such Measurement Period, or such Redemption Valuation Date, as applicable; provided, that for the purpose of calculating the Stub Reference Distribution Amount, the Reference Holder will be deemed to hold four-fifths, three-fifths, two-fifths and one-fifth of the shares of each Index Constituent Security it would otherwise hold on the second, third, fourth and fifth Index Business Day, respectively, in such Measurement Period.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently Solactive.

The “**Calculation Date**” means October 13, 2049, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

“**Index Business Day**” means any day on which the Primary Exchange and each Related Exchange are scheduled to be open for trading.

“**Exchange Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

“**Related Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, each exchange or quotation system where trading has a material effect (as determined by the Security Calculation Agent) on the overall market for futures or options contracts relating to such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return on the Securities is linked to the performance of the price return version of the Solactive US High Dividend Low Volatility Index (“SOLHDLV”). The Index is designed to measure the performance of 40 dividend yielding, relatively lower volatility Index Constituent Securities from the universe of the largest 1,000 U.S. listed stocks by market capitalization.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon, New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on any applicable Index Business Day, provided that you request that we redeem a minimum of 50,000 Securities. We reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to the benefit of any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be October 30, 2019, and the final Redemption Date will be October 14, 2049. In addition, if a call notice has been issued or if acceleration has been triggered, the last Redemption Valuation Date will be the fifth Index Business day prior to the Call Settlement Date or Acceleration Settlement Date, as applicable. If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

As of any Redemption Valuation Date, the “Redemption Fee Amount” means an amount per Security equal to:

$$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date}).$$

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}.$$

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation.

$$\text{Closing Indicative Value} \quad - \quad \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable (less any Coupon Amounts and/or any Stub Reference Distribution Amount you may be entitled to receive as of the Redemption Valuation Date), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment upon early redemption.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right and, upon the occurrence of an acceleration event, the Securities may be accelerated and redeemed by UBS, at its option. See “— UBS’s Call Right” and “— Optional Acceleration Upon Minimum Indicative Value” below.

We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Redemption and Repayment.”

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon (New York City time) on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon (New York City time), or your Redemption Confirmation after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the Redemption Notice is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to the benefit of any such waiver or election to accelerate the Redemption Valuation Date.

UBS’s Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen (18) calendar days’ prior notice to the holders of the Securities (which may be provided via press release), such redemption to occur on any Business Day that we may specify on or after November 12, 2019 through and including the Maturity Date. Upon early redemption in the event we exercise this right, you will receive a cash payment equal to

- the product of
 - the Current Principal Amount and (ii) the Index Factor as of the last Index Business Day in the Call Measurement Period, *plus*
- the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Call Valuation Date if on the last Index Business Day in the Call Measurement Period the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *minus*
- the Accrued Fees as of the last Index Business Day in the Call Measurement Period, *plus*
- the Stub Reference Distribution Amount as of the last Index Business Day in the Call Measurement Period, if any.

We refer to this cash payment as the “**Call Settlement Amount.**”

If the amount calculated above is equal to or less than zero, the payment upon UBS’s exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the second Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event.”

The “**Call Measurement Period**” means:

- if the Market Value of Securities outstanding as at the close of business on the Exchange Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is less than \$250,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”;
- if the Market Value of Securities outstanding as at the close of business on the Exchange Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is equal to or greater than \$250,000,000, the five (5) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”

The “**Market Value**” of the Securities outstanding as of the close of business on the Exchange Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right will equal:

Intraday indicative value as of such Exchange Business Day × number of Securities outstanding as reported by HDLBIV <Index> on Bloomberg.

The “**Call Valuation Date**” means the date disclosed as such by UBS in its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right.

In any notice to holders exercising the UBS Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation.

$$\begin{array}{ccccccc} & \text{Current} & & & & & \text{Stub} \\ & \text{Principal} & & & & & \text{Reference} \\ & \text{Amount} & + & \text{Coupon} & - & \text{Accrued} & \text{Distribution} \\ & \times & & \text{Amount} & & \text{Fees} & \text{Amount} \\ & \text{Index Factor} & & & & & \end{array}$$

You may lose all or a substantial portion of your investment upon a call. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts and/or any Stub Reference Distribution Amount, as applicable, you may be entitled to receive), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment upon a call.

In addition, upon the occurrence of an acceleration event, the Securities may be accelerated and redeemed by UBS, at its option. See “Specific Terms of the Securities — Optional Acceleration Upon Minimum Indicative Value” below.

Optional Acceleration Upon Minimum Indicative Value

If, at any time, the intraday indicative value of the Securities on any Index Business Day equals \$2.00 or less (the “**Indicative Value Optional Acceleration Trigger**”) (each such day, an “**Optional Acceleration Date**”), all issued and outstanding Securities may be accelerated and redeemed by UBS, at its option (even if the intraday indicative value would later exceed \$2.00 on such Optional Acceleration Date or any subsequent Index Business Day) for a cash payment equal to the Acceleration Amount (the “**Acceleration Option**”).

In the event that the Indicative Value Optional Acceleration Trigger threshold has been breached, UBS will issue a press release before 9:00 a.m. on the Index Business Day following the Optional Acceleration Date announcing whether or not it has elected to exercise its Acceleration Option. UBS is under no obligation to exercise its Acceleration Option and the Securities may remain outstanding following an Indicative Value Optional Acceleration Trigger Event occurring, if UBS does not elect to exercise such Acceleration Option.

The “**Acceleration Amount**” will equal

- (a) the product of
 - (i) the Current Principal Amount and (ii) the Index Factor as of the last Index Business Day in the Acceleration Valuation Period, *plus*
- (b) the Coupon Amount with respect to the Coupon Valuation Date immediately preceding the Optional Acceleration Date if on the last Index Business Day in the Acceleration Valuation Period the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, *minus*
- (c) the Accrued Fees as of the last Index Business Day in the Acceleration Valuation Period, *plus*
- (d) the Stub Reference Distribution Amount as of the last Index Business Day in the Acceleration Valuation Period, if any.

If the Acceleration Amount is equal to or less than zero, the payment upon acceleration will be zero.

If the Indicative Value Optional Acceleration Trigger threshold has been breached and UBS elects to exercise its Acceleration Option, you will receive on the Acceleration Settlement Date only the Acceleration Amount in respect of your investment in the Securities. The “**Acceleration Settlement Date**” will be the second Business Day following the last Index Business Day of the Acceleration Valuation Period. The “**Acceleration Valuation Period**” will be the five Index Business Days from, but excluding, the Optional Acceleration Date, subject to adjustment as described under “— Market Disruption Event.” Subject to the prior verification by the Security Calculation Agent that the intraday indicative value of the Securities of \$2.00 or less was accurately calculated by the NYSE, UBS must provide notice (which may be provided via press release) to the holders of the Securities that the minimum indicative value threshold has been breached not less than five calendar days prior to the Acceleration Settlement Date.

If the Securities undergo a split or reverse split, the Indicative Value Optional Acceleration Trigger will be adjusted accordingly.

The following graphic illustrates the formula to determine the Acceleration Amount, which has been simplified for ease of presentation.

$$\frac{\text{Current Principal Amount}}{\text{Index Factor}} + \text{Coupon Amount} - \text{Accrued Fees} + \text{Stub Reference Distribution Amount}$$

You may lose all or a substantial portion of your investment upon acceleration. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged monthly return of the Index is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts and/or any Stub Reference Distribution Amount, as applicable, you may be entitled to receive), or if the compounded leveraged monthly return of the Index is negative, you may lose all or a substantial portion of your investment upon acceleration.

In addition, the Securities may be called by UBS prior to the Maturity Date pursuant to UBS's Call Right. See “— UBS's Call Right” above.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on any Index Business Day (other than an Excluded Day, as defined herein) decreases 20% in value from the previous Monthly Initial Closing Level or Loss Rebalancing Closing Level, whichever is more recent. If a Loss Rebalancing Event occurs, the Current Principal Amount of the Securities will be reset as described below, which will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. A Loss Rebalancing Event may occur irrespective of whether a Market Disruption Event also occurs on such Index Business Day.

Upon the occurrence of a Loss Rebalancing Event, the Current Principal Amount will be reset on the applicable Loss Rebalancing Reset Date as follows:

New Current Principal Amount = *previous Current Principal Amount* × Index Factor = *previous Current Principal Amount* on the applicable Loss Rebalancing Valuation Date — Accrued Fees on the applicable Loss Rebalancing Valuation Date

In the event of a Loss Rebalancing Event, the Financing Rate will not be adjusted.

On the next Monthly Valuation Date following one or more Loss Rebalancing Events, the Monthly Initial Closing Level will be replaced with the most recent Loss Rebalancing Closing Level in the calculation of the Index Performance Ratio.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar month. This means both that (i) the Current Principal Amount may be reset more frequently than monthly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

On any Loss Rebalancing Valuation Date, the Accrued Financing Charges for each Security will equal the product of (i) the Financing Level on the immediately preceding Monthly Valuation Date or Loss Rebalancing Valuation Date, whichever is more recent, *times* (ii) the Financing Rate *times* (iii) the number of calendar days from, but excluding, the immediately preceding Monthly Valuation Date or Loss Rebalancing Valuation Date, whichever is more recent, to, and including, the then current Loss Rebalancing Valuation Date *divided by* (iv) 360.

An “**Excluded Day**” means (i) the Index Business Day immediately preceding any Monthly Valuation Date, (ii) any Monthly Valuation Date, (iii) any Loss Rebalancing Valuation Date (iv) the Index Business Day immediately preceding the first day of the Final Measurement Period or any day after such Index Business Day, (v) the Index Business Day immediately preceding the first day of the Call Measurement Period or any day after such Index Business Day, or (vi) the Optional Acceleration Date or any day after the Optional Acceleration Date.

“**Loss Rebalancing Closing Level**” means the Index Closing Level on the Loss Rebalancing Valuation Date.

“**Loss Rebalancing Reset Date**” means the first Index Business Day immediately following a Loss Rebalancing Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”;

- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Principal Amount, intraday indicative value, Market Disruption Events, Business Days, Index Business Days, Exchange Business Days, the Index Factor, the Index Performance Ratio, the Index Valuation Level, the Financing Level, the Accrued Fees (including determining any successor to the LIBOR base rate), the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Fees, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable, the Acceleration Amount that we will pay you upon acceleration, the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, whether a Loss Rebalancing Event has occurred and whether any day is a Business Day, Index Business Day or an Exchange Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Security, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity, call or acceleration, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 noon, New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date, Acceleration Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Fees, the Redemption Amount and Redemption Fee Amount, if any, per Security, the Call Settlement Amount, if any, per Security, the Current Principal Amount, the Acceleration Amount, the Financing Level, and the Cash Settlement Amount, if any, per Security, will be rounded to the nearest ten-thousandth, with five one hundred- thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid on the Stated Principal Amount of the Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on an Averaging Date (as defined below), the Index Closing Level for such Averaging Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing (the “**Deferred Averaging Date**”) with respect to the Index irrespective of whether, pursuant to such determination, the Deferred Averaging Date would fall on a date originally scheduled to be an Averaging Date. If the postponement described in the preceding sentence results in the Index Closing Level being calculated on a day originally scheduled to be an Averaging Date, for purposes of determining the Index Closing Level on any Averaging Date, the Security Calculation Agent or one of its affiliates, as the case may be, will apply the Index Closing Level for such Deferred Averaging Date (i) on the date(s) of the original Market Disruption Event and (ii) such Averaging Date. For example, if the applicable Measurement Period for purposes of calculating the Call Settlement Amount is based on the arithmetic mean of the Index Closing Levels on November 3, November 4, November 5, November 6 and November 7, and there is a Market Disruption Event with respect to the Index on November 3, but no other Market Disruption Event during such Measurement Period, then the Index Closing Level on November 4 will be used twice to calculate the Call Settlement Amount, and the Call Settlement Amount will be determined based on the arithmetic mean of the Index Closing Levels on November 4, November 4, November 5, November 6 and November 7. The same approach would be applied if there is a Market Disruption Event during any Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date or any Monthly Valuation Date or Loss Rebalancing Valuation Date, the Index Closing Level for such Redemption Valuation Date, Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable, will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on November 3 and there is a Market Disruption Event with respect to the Index on November 3, then the Index Closing Level on November 4 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on November 4.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the final Averaging Date or any Monthly Valuation Date, Redemption Valuation Date or Loss Rebalancing Valuation Date, as applicable, occurring more than three Index Business Days following the day originally scheduled to be such final Averaging Date or such Monthly Valuation Date, Redemption Valuation Date or Loss Rebalancing Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the third Index Business Day following the date originally scheduled to be the final Averaging Date or any Monthly Valuation Date, Redemption Valuation Date or Loss Rebalancing Valuation Date, as applicable, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such third Index Business Day but for such Market Disruption Event. If any Monthly Valuation Date or Loss Rebalancing Valuation Date is postponed as described above, the succeeding Monthly Reset Date or Loss Rebalancing Reset Date will occur on the next Index Business Day following the postponed Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable.

An “**Averaging Date**” means each of the Index Business Days during a Measurement Period, subject to adjustment as described herein.

Any of the following will be a Market Disruption Event with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities for trading in the Index Constituent Security, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging”.

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under “Description of Debt Securities We May Offer — Optional Tax Redemption” in “Medium-Term Notes, Series B” above. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the four Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the fourth Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor discontinues publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), and the Security Calculation Agent approves such index as a successor index, then the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination, Coupon Amounts and the amount payable at maturity, call, acceleration or

upon early redemption and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Monthly Valuation Date or Loss Rebalancing Valuation Date, as applicable, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described herein as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, including the Coupon Amounts, Current Principal Amount, Current Indicative Principal Amount, Index Factor, intraday indicative value, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, or upon early redemption by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of units in the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or the units in the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after October 24, 2019 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of units in the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or the units in the Index constituents included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after October 24, 2019 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of units in the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or the units in the Index constituents included in the Index (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index or a successor index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the Index Closing Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Valuation Level, the Index Performance Ratio, the Coupon Amount, the Reference Distribution Amount, the Stub Reference Distribution Amount, if any, the Accrued Fees, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, the Acceleration Amount that we will pay you in the event of an optional acceleration upon minimum indicative value, if applicable, the Loss Rebalancing Closing Level, if any, the Monthly Initial Closing Level and all related payment terms based on the Index Closing Level calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the Index), which, in turn, causes the Index Closing Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor index as if it had not been modified (*e.g.*, as if such split had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference to the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity, call or acceleration, or upon early redemption, will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day or a New York Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in "Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities" in "Medium-Term Notes, Series B" above.

Modified Business Day

As described in "Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities" in "Medium-Term Notes, Series B" above, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under "— Cash Settlement Amount at Maturity," "— UBS's Call Right" and "— Early Redemption at the Option of the Holders" above.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B” above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

13. ETRACS Quarterly Pay 1.5x Leveraged Alerian MLP Index ETN due June 10, 2050

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

The Securities are part of a series of UBS AG debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described in the accompanying prospectus. This prospectus supplement summarizes specific financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” in the accompanying prospectus. The terms described here (i.e., in this prospectus supplement) supplement those described in the accompanying prospectus and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

If a Zero Value Event occurs, for each Security you will receive a cash payment per Security on the Zero Value Settlement Date equal to the (i) the Measurement Period Cash Amount, on the immediately preceding calendar day, plus (ii) the Accrued Dividend, on the date on which the Zero Value Event occurred, minus (iii) the Accrued Fees, on the date on which the Zero Value Event occurred, as described under “— Automatic Acceleration Upon Zero Value Event.”

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the Coupon Amount. The Coupon Amount will equal the sum of the cash distributions that a hypothetical holder of Index constituents would have been entitled to receive in respect of the Index constituents during the relevant period. The Coupon Amount may be equal to zero.

The “**Coupon Amount**” means (i) on any calendar day that is not a Coupon Ex-Date, zero; and (ii) on any calendar day that is a Coupon Ex-Date, an amount per Security equal to the Accrued Dividend on the Coupon Valuation Date immediately preceding such Coupon Ex-Date. The minimum value of the Coupon Amount will be zero.

The following graphic illustrates the formula to determine the Coupon Amount on a Coupon Ex-Date, which has been simplified for ease of presentation:

$$\text{Coupon Amount} = \text{Accrued Dividend, on the immediately preceding Coupon Valuation Date}$$

If the Securities undergo a split or reverse split, the Coupon Amount will be adjusted accordingly.

The “**Accrued Dividend**” means (i) on the Initial Trade Date, zero; and (ii) on any subsequent calendar day, an amount per Security equal to (a) the Accrued Dividend as of the immediately preceding calendar day, *plus* (b) the Daily Dividend on such calendar day, *minus* the Coupon Amount on such calendar day.

If the Securities undergo a split or reverse split, the Accrued Dividend will be adjusted accordingly.

The “**Daily Dividend**” means, on any calendar day, an amount per Security equal to (a)(i) the Index Dividend Point, *times* (ii) the Leverage Factor, *times* (iii) the Current Principal Amount on the immediately preceding calendar day, *times* (iv) the Residual Factor on the immediately preceding calendar day, *divided by* (b) the Last Reset Index Closing Level.

The “**Index Dividend Point**” means, on any calendar day, an amount per Security equal to the *sum of the products* of (i) the cash value of distributions that a hypothetical holder of one share of each Index Constituent Security on such calendar day would have been entitled to receive in respect of that Index Constituent Security for those cash distributions whose “ex-dividend date” occurs on such calendar day and (ii) the number of units of that Index Constituent Security included in the Index as of such date.

The Index Dividend Point may not be publicly disseminated by the Index Calculation Agent. The data used to calculate the Index Dividend Point is the property of the Index Sponsor and investors may be required to pay a fee and meet any other requirements of the Index Sponsor, in order to access such information. See “Risk Factors — The value of the Index Dividend Point may not be publicly disseminated or otherwise freely accessible to investors”.

The Index Dividend Point, on any calendar day, represents the total cash value of distributions that a hypothetical holder of the Index Constituent Securities, in proportion to the weights of the Index Constituent Securities, would have been entitled to receive with respect to any Index Constituent Securities for those cash distributions whose “ex-dividend date” occurs on such calendar day.

The “**Coupon Payment Date**” means the fifteenth (15th) Index Business Day following each Coupon Valuation Date. The first Coupon Payment Date will be July 22, 2020, subject to adjustment as provided herein. If such day is not a Coupon Business Day, the Coupon Payment Date shall be the following Coupon Business Day.

If the Final Coupon Ex-Date occurs prior to the Maturity Date, but the Final Coupon Payment Date otherwise occurs after the Maturity Date, in such case, the Final Coupon Payment Date will be the Maturity Date, subject to adjustment as provided herein.

The “**Coupon Record Date**” means the ninth Index Business Day following each Coupon Valuation Date. If such day is not a Coupon Business Day, the Coupon Record Date shall be the immediately preceding Coupon Business Day.

The “**Coupon Ex-Date**,” with respect to a Coupon Amount, means the first Coupon Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the Coupon Business Day immediately preceding the applicable Coupon Record Date.

If a Zero Value Event occurs on an Index Business Day that would otherwise be a Coupon Ex-Date, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended. In this case, the Coupon Amount corresponding to such Coupon Ex-Date will be included in the Zero Value Settlement Amount payable on the Zero Value Settlement Date.

In addition, if a day that would otherwise be a Coupon Ex-Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended. In this case, the Coupon Amount corresponding to such Coupon Ex-date will be included in the Cash Settlement Amount or Call Settlement Amount payable at maturity or call, respectively.

The “**Coupon Valuation Date**” means the 30th day of each March, June, September and December, of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date, subject to adjustment described herein. The first Coupon Valuation Date will be June 30, 2020.

Notwithstanding the foregoing, with respect to cash distributions or dividends on an Index Constituent Security which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index Constituent Security fails to pay the dividend or distribution to holders of such Index Constituent Security by the scheduled payment date for such dividend or distribution, such dividend or distribution will be assumed to be zero for the purposes of calculating the applicable Coupon Amount. Any such delayed dividend or distribution payment from the issuer of an Index Constituent Security will be attributed back to the Accrued Dividend and included in the next Coupon Amount.

“**Coupon Business Day**” means any Index Business Day other than an Index Business Day on which banking institutions in New York are generally not authorized or obligated by law, regulation or executive order to open.

“**record date**” means, (i) with respect to a distribution on an Index Constituent Security, the date on which a holder of the Index Constituent Security must be registered as a stockholder/unitholder of such Index Constituent Security in order to be entitled to receive such distribution and (ii) with respect to any split or reverse split, the tenth Business Day after the announcement date.

“**ex-dividend date**” means, with respect to a distribution on an Index Constituent Security, the first Business Day on which transactions in such Index Constituent Security trade on the Primary Exchange without the right to receive such distribution.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is June 10, 2050, which will be the third Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated, you will receive at maturity a cash payment equal to the Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts you may be entitled to receive), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. If the Securities are called by UBS or accelerated upon the occurrence of a Zero Value Event, the Call Settlement Amount or Zero Value Settlement Amount, as applicable, may be zero and you may lose all or a substantial portion of your investment. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The “**Closing Indicative Value**” per Security, will be calculated as follows:

- a) On the Initial Trade Date, \$25.00 per Security;
- b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor) - Accrued Fees + Accrued Dividend
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) — Accrued Fees + Accrued Dividend + Measurement Period Cash Amount
- d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs on any Index Business Day then the Closing Indicative Value will be equal to the Zero Value Settlement Amount on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would be approximately half of the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be fully redeemed and you will receive the Zero Value Settlement Amount (which amount may be zero).

The Current Principal Amount per Security, will be calculated as follows:

- (1) From and including the Initial Trade Date to and excluding the subsequent Reset Valuation Date, \$25.00 per Security;
- (2) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:

$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the subsequent Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Reset Valuation Date.

If a Zero Value Event occurs on any Index Business Day then the Current Principal Amount will be equal to zero on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset.

The “**Reset Valuation Date**” means:

- (1) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and
- (2) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The definition of each valuation date is set forth below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the last Index Business Day of January, April, July and October of each calendar year beginning on July 31, 2020 and ending on April 29, 2050 (other than an Excluded Day), subject to adjustment as described under “— Market Disruption Event.”

For purposes of the “Quarterly Reset Valuation Date” definition, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor *times* the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

If a Zero Value Event occurs at any time during any Index Business Day then the Index Factor will be equal to zero subsequent to the event on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

The “**Residual Factor**” will be calculated as follows:

- a) on any calendar day, to but excluding the first day of an applicable Measurement Period.
- b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, *divided by* (b) four. For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (3/4), on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (2/4), on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (1/4) and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.
- c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 1.5. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is 147.1048, the Index Closing Level on the Initial Trade Date, as reported by Bloomberg L.P. and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg L.P. and Reuters; provided, however, that if the closing level of the Index as reported on Bloomberg L.P. (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), then the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) is 147.1048, the Index Closing Level measured on the Initial Trade Date, as determined by the Security Calculation Agent.

On any calendar day that is not an Index Business Day, the Index Closing level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or Call Measurement Period, as applicable.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- a) On the Initial Trade Date, \$25.00.

- b) On any other calendar day prior to the first day of an applicable Measurement Period: (Current Principal Amount on the immediately preceding calendar day \times Index Factor, calculated using the Intraday Index Value)—Accrued Fees + Accrued Dividend.
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to: (Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period \times Index Factor, calculated using the Intraday Index Value \times Residual Factor, from the immediately preceding calendar day)—Accrued Fees + Accrued Dividend + Measurement Period Cash Amount, from the immediately preceding calendar day
- d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (or intraday indicative value). **If a Zero Value Event occurs during any Index Business Day then the Current Indicative Value (or “intraday indicative value”) will be equal to the Zero Value Settlement Amount, subsequent to the event on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event.** See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (or intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly.

The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, *plus* the Daily Tracking Fee on such calendar day.
- c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- b) On any subsequent calendar day, the Daily Tracking Fee is equal to: (a) (i) 0.95%, *times* (ii) the Current Principal Amount on the immediately preceding calendar day, *times* (iii) the Index Factor, on such calendar day, *times* (iv) the Residual Factor, on the immediately preceding calendar day, *divided by* (b) 365.
- c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity, early redemption, call or acceleration upon the occurrence of a Zero Value Event.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly.

The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- b) On any subsequent calendar day, the Accrued Financing Fee is equal to: (a) the Accrued Financing Fee as of the immediately preceding calendar day, *plus* (b) the Daily Financing Fee on such calendar day.
- c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- b) On any subsequent calendar day, the Daily Financing Fee is equal to: (a) (i) 0.5, *times* (ii) the Financing Rate, on such calendar day, *times* (iii) the Current Principal Amount, on the immediately preceding calendar day, *times* (iv) the Residual Factor, on the immediately preceding calendar day, *divided by* (b) 360.
- c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.
- d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Securities. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity, early redemption, call or acceleration upon the occurrence of a Zero Value Event.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 0.95% and (b) the London interbank offered rate (ICE LIBOR) for three-month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Security Calculation Agent) (“**LIBOR**”) (or any successor base rate, as described below), as of 11:00 a.m., London time, on the immediately preceding London Business Day. The minimum value of the three-month U.S. Dollar LIBOR rate (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 0.95%

For example, 1.68275% was the three-month U.S. Dollar LIBOR rate on February 20, 2020, which was a London Business Day. The Financing Rate on February 21, 2020 would have been equal to 0.95% + 1.68275%, or 2.63275%.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued or is no longer representative of the underlying market or economic reality, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry- accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- a) \$0.00 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- b) On the first day of an applicable one-day Measurement Period:
- c) At the close of trading on such Index Business Day, (the Current Principal Amount on the immediately preceding calendar day × Index Factor on such Index Business Day)
- d) From and including the first day of an applicable four-day Measurement Period:
 - i. At the close of trading on each Index Business Day during the applicable four-day Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount, on the calendar day immediately preceding the first day of such Measurement Period × 0.25 × Index Factor, on such Index Business Day).

- ii. On any calendar day during an applicable four-day Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.
- e) On any calendar day after the last Index Business Day of an applicable Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business day during a four-day Measurement Period, approximately 25% of the Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of an applicable four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$100,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$100,000,000, the four (4) Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by MLPRSO <Index> on Bloomberg L.P.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently S&P Dow Jones Indices.

The “**Calculation Date**” means June 2, 2050, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return of the Securities is based upon the performance of the Alerian MLP Index (Bloomberg: “AMZ”). The Index measures the composite performance of energy master limited partnerships (“MLPs”), and is calculated by S&P Dow Jones Indices using a capped, float-adjusted, capitalization weighted methodology. We refer to the MLPs included in the Index as the “Index Constituent Securities.” The Index Constituent Securities earn the majority of their cash flow from qualifying activities involving energy commodities, which include pipeline transportation, gathering and processing, storage, production and mining, marketing, marine transportation, services, catalytic conversion, mineral interest, refining, regasification and other related activities.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon, New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on the same Index Business Day, provided that you request that we redeem a minimum of 50,000 Securities. We reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity date, subject to adjustments. In addition, if a call notice has been issued, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date}).$$

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}.$$

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable (less any Coupon Amounts you may be entitled to receive as of the Redemption Valuation Date), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS's Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See "Specific Terms of the Securities — UBS's Call Right" and "Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event".

We discuss these matters in the accompanying prospectus under "Description of Debt Securities We May Offer — Redemption and Repayment."

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a "**Redemption Notice**" to UBS via email no later than 12:00 noon (New York City time) on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the "**Redemption Confirmation**", to us via email in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon (New York City time), or your Redemption Confirmation after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the Redemption Notice is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS's Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen (18) calendar days' prior notice to the holders of the Securities (which may be provided via press release), such redemption to occur on any Business Day that we may specify through and including the Maturity Date. Upon early redemption in the event we exercise this call right, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the "**Call Settlement Amount**."

If the amount calculated above is equal to or less than zero, the payment upon UBS's exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Business Day following the last Index Business Day in the Call Measurement Period (the "**Call Settlement Date**"). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under "— Market Disruption Event."

The "**Call Measurement Period**" means:

- a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is less than \$100,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”;
- b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is equal to or greater than \$100,000,000, the four (4) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right will equal:

- (i) The Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by MLPRSO <Index> on Bloomberg L.P.

The “**Call Valuation Date**” means the date disclosed as such by UBS in its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right.

In any notice to holders exercising the UBS Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Call Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Index}}$$

You may lose all or a substantial portion of your investment upon a call. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts you may be entitled to receive), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

In addition, upon the occurrence of a Zero Value Event, the Securities may be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

A “**Zero Value Event**” occurs if, on any Index Business Day (other than an Excluded Day), the Intraday Index Value decreases by 66.66667% or more in value from the Last Reset Index Closing Level. From immediately after the Zero Value Event and on all future calendar days, the Index Factor and the Current Principal Amount will be set equal to zero. The Accrued Dividend and Accrued Fees will be fixed at their respective values on the Zero Value Event date and will stay unchanged on all future calendar days.

When the Intraday Index Value decreases 66.66667% in value from the Last Reset Index Closing Level, the Index Factor will equal zero. A Zero Value Event represents the first instance when the effective unleveraged notional amount that is deemed invested in the Index per Security equals zero. It will have the effect of permanently resetting the value of your Securities to a fixed value (which may be zero) and accelerating the Securities. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. A Zero Value Event is expected to occur only in the narrow window of time between the occurrence of a Permanent Deleveraging Event and completion of the leverage reset to 1.0 at the end of the Second Permanent Deleveraging Valuation Date.

For the purposes of the “Zero Value Event” definition, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on which a Zero Value Event has already occurred, (iii) any calendar day after the occurrence of a Zero Value Event, and (iv) any calendar day after the last day of an applicable Measurement Period.

If a Zero Value Event occurs, all issued and outstanding Securities will be automatically terminated and mandatorily redeemed by UBS and you will receive the Zero Value Settlement Amount on the Zero Value Settlement Date. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event and specify the relevant Zero Value Settlement Date and Zero Value Settlement Amount in respect of your investment in the Securities. The Securities will be suspended from trading intra-day shortly after the event occurs and will likely not be open for trading again on NYSE Arca before the Zero Value Settlement Date.

If a Zero Value Event occurs on an Index Business Day that would otherwise be a Coupon Ex-Date, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended.

The “Zero Value Settlement Amount” per Security will be calculated as follows:

- a) On any calendar day, to but excluding the first day of an applicable Measurement Period:
 - (i) the Accrued Dividend, minus (ii) the Accrued Fees, on the date on which the Zero Value Event occurred.
- b) From and including the first day of an applicable Measurement Period:
 - (i) the Measurement Period Cash Amount on the immediately preceding calendar day, *plus* (ii) the Accrued Dividend, *minus* (iii) the Accrued Fees, on the date on which the Zero Value Event occurred.
- c) The minimum value of the Zero Value Settlement Amount will be zero.

For example:

- a) If the Accrued Dividend was \$0.04, the Accrued Fees was \$0.01, and the Measurement Period Cash Amount was \$0, then the Zero Value Settlement Amount would be \$0.03.
- b) If the Accrued Dividend was \$0.01, the Accrued Fees was \$0.05, and the Measurement Period Cash Amount was \$0, then the Zero Value Settlement Amount would be \$0.
- c) If the Zero Value Event occurred during a four-day Measurement Period, and the Accrued Dividend was \$0.01, the Accrued Fees was \$0.03, and the Measurement Period Cash Amount on the immediately preceding calendar day was \$6.59, then the Zero Value Settlement Amount would be \$6.57.

The following graphics illustrate the formula to determine the Zero Value Settlement Amount, which has been simplified for ease of presentation:

On any calendar day, to but excluding the first day of an applicable four-day Measurement Period:

$$\text{Zero Value Settlement Amount} = \text{Accrued Dividend} - \text{Accrued Fees on date Zero Value Event occurred}$$

From and including the first day of an applicable Measurement Period:

$$\text{Zero Value Settlement Amount} = \text{Measurement Period Cash Amount on immediately preceding calendar day} + \text{Accrued Dividend} - \text{Accrued Fees on date Zero Value Event occurred}$$

The “Zero Value Settlement Date” will be the third Index Business Day following the date on which the Zero Value Event occurred. For a detailed description of how the Current Indicative Value (or intraday indicative value) of the Securities is calculated see “Valuation of the Index and the Securities”.

You may lose all or a substantial portion of your investment upon the occurrence of a Zero Value Event. Upon the occurrence of a Zero Value Event you will receive on the Zero Value Settlement Date only the Zero Value Settlement Amount per Security.

In addition, the Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 1.5. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “Loss Rebalancing Event” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day) decreases by 15% or more in value from the previously Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

For purposes of the “Loss Rebalancing Event” definition, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15pm on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15pm on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, (viii) a Zero Value Event date, and (ix) any calendar day after the Zero Value Event date.

“**Loss Rebalancing Valuation Date**” means:

- a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”;
- b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0, over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 1.5 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Permanent Deleveraging Event. A Permanent Deleveraging Event is expected to occur only in the narrow window of time between the occurrence of a Loss Rebalancing Event and completion of the leverage reset to 1.5 at the end of the Loss Rebalancing Valuation Date.

A “**Permanent Deleveraging Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day) decreases by 50% or more in value from the Last Reset Index Closing Level.

For purposes of the “Permanent Deleveraging Event” definition, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) a day upon which a Zero Value Event occurs, (iv) any calendar day after the occurrence of a Zero Value Event, (v) the day which is two Index Business Days prior to the first day of an applicable Measurement Period, if a Permanent Deleveraging Event occurs after 3:15pm on such day and (vi) any calendar day from and including the Index Business Day immediately preceding the first day of an applicable Measurement Period.

In the event that a Permanent Deleveraging Event has occurred, UBS will issue a press release before 9:00 a.m. on the Index Business Day immediately following the date on which the Permanent Deleveraging Event occurred, announcing the Permanent Deleveraging Event and notifying you of the Permanent Deleveraging Valuation Dates.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- a) The “**First Permanent Deleveraging Valuation Date**” means:
 - i. Any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “- Market Disruption Event”;
 - ii. If a Permanent Deleveraging Event occurs after 3:15pm on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event”.

The leverage of your Securities will be reset to approximately 1.5 at the close of trading on the First Permanent Deleveraging Valuation Date.

- b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event”.

The leverage of your Securities will be reset to approximately 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Value (or the “intraday indicative value”), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the LIBOR base rate), the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable, the Zero Value Settlement Amount, if any, that we will pay you upon acceleration following the occurrence of a Zero Value Event, the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is a Business Day or an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Security, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of this prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 noon, New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date, Zero Value Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Accrued Fees, the Redemption Amount and Redemption Fee Amount, if any, per Security, the Call Settlement Amount, if any, per Security, the Current Principal Amount, the Zero Value Settlement Amount, and the Cash Settlement Amount, if any, per Security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid on the Stated Principal Amount of the Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a Market Disruption Event with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- c) the Index is not published; or
- d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging”.

The following events will not be Market Disruption Events with respect to the Index:

- a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under “Description of Debt Securities We May Offer — Optional Tax Redemption” in the accompanying prospectus. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the three Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the third Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in the attached prospectus under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking,

plus

the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor or Index Calculation Agent discontinues publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), and the Security Calculation Agent approves such index as a successor index, then the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination, Coupon Amounts and the amount payable at maturity, call, acceleration upon the occurrence of a Zero Value Event or upon early redemption and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in this prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, including the Coupon Amounts, Current Principal Amount, Current Indicative Value or intraday indicative value, Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, upon early redemption or upon acceleration upon the occurrence of a Zero Value Event by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after June 2, 2020 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- c) any event that occurs on or after June 2, 2020 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a substitute index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the Index Closing Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Accrued Fees, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, the Zero Value Settlement Amount, if any, that we will pay you in the event of acceleration upon the occurrence of a Zero Value Event, if applicable, the Last Reset Index Closing Level and all related payment terms based on the Index Closing Level calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the Index), which, in turn, causes the Index Closing Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor index as if it had not been modified (*e.g.*, as if such split had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — There are potential conflicts of interest between you and the Security Calculation Agent" in this prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption, will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day or a New York Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the accompanying prospectus.

Modified Business Day

As described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the attached prospectus, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Cash Settlement Amount at Maturity,” “— UBS’s Call Right” and “— Early Redemption at the Option of the Holders” above.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of this prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in the accompanying prospectus.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

14. ETRACS Quarterly Pay 1.5X Leveraged MVIS BDC Index ETN due June 10, 2050

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

The Securities are part of a series of UBS AG debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described in the accompanying prospectus. This prospectus supplement summarizes specific financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” in the accompanying prospectus. The terms described here (*i.e.*, in this prospectus supplement) supplement those described in the accompanying prospectus and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

If a Zero Value Event occurs, for each Security you will receive a cash payment per Security on the Zero Value Settlement Date equal to the (i) the Measurement Period Cash Amount, on the immediately preceding calendar day, *plus* (ii) the Accrued Dividend, on the date on which the Zero Value Event occurred, *minus* (iii) the Accrued Fees, on the date on which the Zero Value Event occurred, as described under “— Automatic Acceleration Upon Zero Value Event.”

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the Coupon Amount. The Coupon Amount will equal the sum of the cash distributions that a hypothetical holder of Index constituents would have been entitled to receive in respect of the Index constituents during the relevant period. The Coupon Amount may be equal to zero.

The “**Coupon Amount**” means (i) on any calendar day that is not a Coupon Ex-Date, zero; and (ii) on any calendar day that is a Coupon Ex-Date, an amount per Security equal to the Accrued Dividend on the Coupon Valuation Date immediately preceding such Coupon Ex-Date. The minimum value of the Coupon Amount will be zero.

The following graphic illustrates the formula to determine the Coupon Amount on a Coupon Ex-Date, which has been simplified for ease of presentation:

$$\text{Coupon Amount} = \text{Accrued Dividend, on the immediately preceding Coupon Valuation Date}$$

If the Securities undergo a split or reverse split, the Coupon Amount will be adjusted accordingly.

The “**Accrued Dividend**” means (i) on the Initial Trade Date, zero; and (ii) on any subsequent calendar day, an amount per Security equal to (a) the Accrued Dividend as of the immediately preceding calendar day, *plus* (b) the Daily Dividend on such calendar day, *minus* the Coupon Amount on such calendar day.

If the Securities undergo a split or reverse split, the Accrued Dividend will be adjusted accordingly.

The “**Daily Dividend**” means, on any calendar day, an amount per Security equal to (a)(i) the Index Dividend Point, *times* (ii) the Leverage Factor, *times* (iii) the Current Principal Amount on the immediately preceding calendar day, *times* (iv) the Residual Factor on the immediately preceding calendar day, *divided by* (b) the Last Reset Index Closing Level.

The “**Index Dividend Point**” means, on any calendar day, an amount per Security equal to the *sum of the products* of (i) the cash value of distributions that a hypothetical holder of one share of each Index Constituent Security on such calendar day would have been entitled to receive in respect of that Index Constituent Security for those cash distributions whose “ex-dividend date” occurs on such calendar day and (ii) the number of units of that Index Constituent Security included in the Index as of such date.

The Index Dividend Point may not be publicly disseminated by the Index Calculation Agent. The data used to calculate the Index Dividend Point is the property of the Index Calculation Agent and investors may be required to pay a fee and meet any other requirements of the Index Calculation Agent, in order to access such information. See “Risk Factors — The value of the Index Dividend Point may not be publicly disseminated or otherwise freely accessible to investors”.

The Index Dividend Point, on any calendar day, represents the total cash value of distributions that a hypothetical holder of the Index Constituent Securities, in proportion to the weights of the Index Constituent Securities, would have been entitled to receive with respect to any Index Constituent Securities for those cash distributions whose “ex-dividend date” occurs on such calendar day.

The “**Coupon Payment Date**” means the fifteenth (15th) Index Business Day following each Coupon Valuation Date. If such day is not a Coupon Business Day, the Coupon Payment Date shall be the following Coupon Business Day

If the final Coupon Ex-Date occurs prior to the Maturity Date, but the final Coupon Payment Date otherwise occurs after the Maturity Date, in such case, the final Coupon Payment Date will be the Maturity Date, subject to adjustment as provided herein.

The “**Coupon Record Date**” means the ninth Index Business Day following each Coupon Valuation Date. If such day is not a Coupon Business Day, the Coupon Record Date shall be the immediately preceding Coupon Business Day.

The “**Coupon Ex-Date**,” with respect to a Coupon Amount, means the first Coupon Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the Coupon Business Day immediately preceding the applicable Coupon Record Date.

If a Zero Value Event occurs on an Index Business Day that would otherwise be a Coupon Ex-Date, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended. In this case, the Coupon Amount corresponding to such Coupon Ex-Date will be included in the Zero Value Settlement Amount payable on the Zero Value Settlement Date.

In addition, if a day that would otherwise be a Coupon Ex-Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended. In this case, the Coupon Amount corresponding to such Coupon Ex-date will be included in the Cash Settlement Amount or Call Settlement Amount payable at maturity or call, respectively.

The “**Coupon Valuation Date**” means the 30th day of each March, June, September and December, of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date, subject to adjustment described herein.

Notwithstanding the foregoing, with respect to cash distributions or dividends on an Index Constituent Security which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index Constituent Security fails to pay the dividend or distribution to holders of such Index Constituent Security by the scheduled payment date for such dividend or distribution, such dividend or distribution will be assumed to be zero for the purposes of calculating the applicable Coupon Amount. Any such delayed dividend or distribution payment from the issuer of an Index Constituent Security will be attributed back to the Accrued Dividend and included in the next Coupon Amount.

“**Coupon Business Day**” means any Index Business day other than an Index Business Day on which banking institutions in New York are generally not authorized or obligated by law, regulation or executive order to open.

“**record date**” means, (i) with respect to a distribution on an Index Constituent Security, the date on which a holder of the Index Constituent Security must be registered as a stockholder/unitholder of such Index Constituent Security in order to be entitled to receive such distribution and (ii) with respect to any split or reverse split, the tenth Business Day after the announcement date.

“**ex-dividend date**” means, with respect to a distribution on an Index Constituent Security, the first Business Day on which transactions in such Index Constituent Security trade on the Primary Exchange without the right to receive such distribution.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is June 10, 2050, which will be the third Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated, you will receive at maturity a cash payment equal to the Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts you may be entitled to receive), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

The Securities may be called by UBS prior to the Maturity Date pursuant to the UBS Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. If the Securities are called by UBS or accelerated upon the occurrence of a Zero Value Event, the Call Settlement Amount or Zero Value Settlement Amount, as applicable, may be zero and you may lose all or a substantial portion of your investment. See “Specific Terms of the Securities — UBS Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The “**Closing Indicative Value**” per Security, will be calculated as follows:

- a) On the Initial Trade Date, \$25.00 per Security;
- b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor) — Accrued Fees + Accrued Dividend
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) — Accrued Fees + Accrued Dividend + Measurement Period Cash Amount
- d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs on any Index Business Day then the Closing Indicative Value will be equal to the Zero Value Settlement Amount on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would be approximately half of the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be fully redeemed and you will receive the Zero Value Settlement Amount (which amount may be zero).

The Current Principal Amount per Security, will be calculated as follows:

- e) From and including the Initial Trade Date to and excluding the subsequent Reset Valuation Date, \$25.00 per Security;
- f) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:
$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the subsequent Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Reset Valuation Date.

If a Zero Value Event occurs on any Index Business Day then the Current Principal Amount will be equal to zero on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset.

The “**Reset Valuation Date**” means:

1. Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and
2. Any calendar day following the Second Permanent Deleveraging Valuation Date.

The definition of each valuation date is set forth below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the last Index Business Day of January, April, July and October of each calendar year beginning on July 31, 2020 and ending on April 29, 2050 (other than an Excluded Day), subject to adjustment as described under “— Market Disruption Event.”

For purposes of the “Quarterly Reset Valuation Date” definition, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor *times* the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

If a Zero Value Event occurs at any time during any Index Business Day then the Index Factor will be equal to zero subsequent to the event on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

The “**Residual Factor**” will be calculated as follows:

- a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, *divided by* (b) four.

For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (3/4), on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (2/4), on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (1/4) and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero

- c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 1.5. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. Immediately after market close on the Effective Date, the Last Reset Index Closing Level is adjusted to be 536.663, the Index Closing Level of the successor index on the Effective Date, as reported by Bloomberg L.P.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg L.P. 536.663 is the Index Closing Level of the successor index on the Effective Date, as determined by the Security Calculation Agent.

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or Call Measurement Period, as applicable.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- a) On the Initial Trade Date, \$25.00.
- b) On any other calendar day prior to the first day of an applicable Measurement Period:
(Current Principal Amount on the immediately preceding calendar day × Index Factor, calculated using the Intraday Index Value) —
Accrued Fees + Accrued Dividend.
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period × Index Factor, calculated using the Intraday Index Value × Residual Factor, from the immediately preceding calendar day) — Accrued Fees + Accrued Dividend +
Measurement Period Cash Amount, from the immediately preceding calendar day
- d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (or intraday indicative value). **If a Zero Value Event occurs during any Index Business Day then the Current Indicative Value (or “intraday indicative value”) will be equal to the Zero Value Settlement Amount, subsequent to the event on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event.** See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (or intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly.

The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, *plus* the Daily Tracking Fee on such calendar day.
- c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- b) On any subsequent calendar day, the Daily Tracking Fee is equal to: (a) (i) 0.95%, *times* (ii) the Current Principal Amount on the immediately preceding calendar day, *times* (iii) the Index Factor, on such calendar day, *times* (iv) the Residual Factor, on the immediately preceding calendar day, *divided by* (b) 365.
- c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity, early redemption, call or acceleration upon the occurrence of a Zero Value Event.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly.

The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- b) On any subsequent calendar day, the Accrued Financing Fee is equal to: (a) the Accrued Financing Fee as of the immediately preceding calendar day, *plus* (b) the Daily Financing Fee on such calendar day.
- c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- b) On any subsequent calendar day, the Daily Financing Fee is equal to: (a) (i) 0.5, *times* (ii) the Financing Rate, on such calendar day, *times* (iii) the Current Principal Amount, on the immediately preceding calendar day, *times* (iv) the Residual Factor, on the immediately preceding calendar day, *divided by* (b) 360.
- c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.

- d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Securities. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity, early redemption, call or acceleration upon the occurrence of a Zero Value Event.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 0.95% and (b) the London interbank offered rate (ICE LIBOR) for three-month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Security Calculation Agent) (“**LIBOR**”) (or any successor base rate, as described below), as of 11:00 a.m., London time, on the immediately preceding London Business Day. The minimum value of the three-month U.S. Dollar LIBOR rate (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 0.95%

For example, 1.68275% was the three-month U.S. Dollar LIBOR rate on February 20, 2020, which was a London Business Day. The Financing Rate on February 21, 2020 would have been equal to 0.95% + 1.68275%, or 2.63275%.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued or is no longer representative of the underlying market or economic reality, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry-accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- a) \$0.00 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- b) On the first day of an applicable one-day Measurement Period:
At the close of trading on such Index Business Day, (the Current Principal Amount on the immediately preceding calendar day × Index Factor on such Index Business Day)
- c) From and including the first day of an applicable four-day Measurement Period:
 - i. At the close of trading on each Index Business Day during the applicable four-day Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount, on the calendar day immediately preceding the first day of such Measurement Period × 0.25 × Index Factor, on such Index Business Day).
 - ii. On any calendar day during an applicable four-day Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.
- d) On any calendar day after the last Index Business Day of an applicable Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of an applicable four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly. The “**Final Measurement Period**” means:

- a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$25,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$25,000,000, the four (4) Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by BDCXSO <Index> on Bloomberg L.P.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is Solactive AG as of market close on July 30, 2021.

The “**Calculation Date**” means June 2, 2050, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return on the Securities is linked to the performance of the MVIS US Business Development Companies Index, the successor index to the Wells Fargo Business Development Company Index (the “**Original Index**”) effective after market close on the July 30, 2021 (the “**Effective Date**”) (Bloomberg: “MVBIZD”). On April 26, 2021, the Security Calculation Agent announced that, pursuant to the terms of the Securities, it has determined that the Index is comparable to the Original Index and approved the Index as the successor index for the Securities following the discontinuation of publication of the Original Index. The Index is intended to measure the performance of the largest and most liquid companies which are treated as business development companies and are incorporated in the United States. The “Index Sponsor” is MV Index Solutions GmbH.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon, New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on the same Index Business Day, provided that you request that we redeem a minimum of 50,000 Securities. We reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if a call notice has been issued, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a market disruption event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date})$.

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}$.

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\begin{array}{r} \text{Redemption} \\ \text{Amount} \end{array} = \begin{array}{r} \text{Closing Indicative} \\ \text{Value} \end{array} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable (less any Coupon Amounts you may be entitled to receive as of the Redemption Valuation Date), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

The Securities may be called by UBS prior to the Maturity Date pursuant to the UBS Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — UBS Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

We discuss these matters in the accompanying prospectus under “Description of Debt Securities We May Offer — Redemption and Repayment.”

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon (New York City time) on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon (New York City time), or your Redemption Confirmation after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the Redemption Notice is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen (18) calendar days’ prior notice to the holders of the Securities (which may be provided via press release), such redemption to occur on any Business Day that we may specify through and including the Maturity Date. Upon early redemption in the event we exercise this call right, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS’s exercise of its call right will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a market disruption event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event.”

The “**Call Measurement Period**” means:

- a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is less than \$25,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”;
- b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is equal to or greater than \$25,000,000, the four (4) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right will equal:

(i) The Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by BDCXSO <Index> on Bloomberg L.P.

The “**Call Valuation Date**” means the date disclosed as such by UBS in its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right.

In any notice to holders exercising the UBS Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment upon a call. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts you may be entitled to receive), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

In addition, upon the occurrence of a Zero Value Event, the Securities may be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

A “**Zero Value Event**” occurs if, on any Index Business Day (other than an Excluded Day), the Intraday Index Value decreases by 66.66667% or more in value from the Last Reset Index Closing Level. From immediately after the Zero Value Event and on all future calendar days, the Index Factor and the Current Principal Amount will be set equal to zero. The Accrued Dividend and Accrued Fees will be fixed at their respective values on the Zero Value Event date and will stay unchanged on all future calendar days.

When the Intraday Index Value decreases 66.66667% in value from the Last Reset Index Closing Level, the Index Factor will equal zero. A Zero Value Event represents the first instance when the effective unleveraged notional amount that is deemed invested in the Index per Security equals zero. It will have the effect of permanently resetting the value of your Securities to a fixed value (which may be zero) and accelerating the Securities. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. A Zero Value Event is expected to occur only in the narrow window of time between the occurrence of a Permanent Deleveraging Event and completion of the leverage reset to 1.0 at the end of the Second Permanent Deleveraging Valuation Date.

For the purposes of the “Zero Value Event” definition, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on which a Zero Value Event has already occurred, (iii) any calendar day after the occurrence of a Zero Value Event, and (iv) any calendar day after the last day of an applicable Measurement Period.

If a Zero Value Event occurs, all issued and outstanding Securities will be automatically terminated and mandatorily redeemed by UBS and you will receive the Zero Value Settlement Amount on the Zero Value Settlement Date. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event and specify the relevant Zero Value Settlement Date and Zero Value Settlement Amount in respect of your investment in the Securities. The Securities will be suspended from trading intra-day shortly after the event occurs and will likely not be open for trading again on NYSE Arca before the Zero Value Settlement Date.

If a Zero Value Event occurs on an Index Business Day that would otherwise be a Coupon Ex-Date, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended.

The “**Zero Value Settlement Amount**” per Security will be calculated as follows:

- a) On any calendar day, to but excluding the first day of an applicable Measurement Period:
 - (i) the Accrued Dividend, *minus* (ii) the Accrued Fees, on the date on which the Zero Value Event occurred.

- b) From and including the first day of an applicable Measurement Period:
 - (i) the Measurement Period Cash Amount on the immediately preceding calendar day, *plus* (ii) the Accrued Dividend, *minus* (iii) the Accrued Fees, on the date on which the Zero Value Event occurred.
- c) The minimum value of the Zero Value Settlement Amount will be zero.

For example:

- a) If the Accrued Dividend was \$0.04, the Accrued Fees was \$0.01, and the Measurement Period Cash Amount was \$0, then the Zero Value Settlement Amount would be \$0.03.
- b) If the Accrued Dividend was \$0.01, the Accrued Fees was \$0.05, and the Measurement Period Cash Amount was \$0, then the Zero Value Settlement Amount would be \$0.
- c) If the Zero Value Event occurred during a four-day Measurement Period, and the Accrued Dividend was \$0.01, the Accrued Fees was \$0.03, and the Measurement Period Cash Amount on the immediately preceding calendar day was \$6.59, then the Zero Value Settlement Amount would be \$6.57.

The following graphics illustrate the formula to determine the Zero Value Settlement Amount, which has been simplified for ease of presentation:

On any calendar day, to but excluding the first day of an applicable four-day Measurement Period:

$$\begin{array}{rcccl} \text{Zero Value Settlement} & & & & \text{Accrued Fees on date} \\ \text{Amount} & = & \text{Accrued Dividend} & - & \text{Zero Value Event} \\ & & & & \text{occurred} \end{array}$$

From and including the first day of an applicable Measurement Period:

$$\begin{array}{rcccl} \text{Zero Value} & & \text{Measurement Period Cash} & & \text{Accrued Fees on date} \\ \text{Settlement} & = & \text{Amount on immediately} & + & \text{Zero Value Event} \\ \text{Amount} & & \text{preceding calendar day} & & \text{occurred} \end{array}$$

The “**Zero Value Settlement Date**” will be the third Index Business Day following the date on which the Zero Value Event occurred. For a detailed description of how the Current Indicative Value (or intraday indicative value) of the Securities is calculated see “Valuation of the Index and the Securities”.

You may lose all or a substantial portion of your investment upon the occurrence of a Zero Value Event. Upon the occurrence of a Zero Value Event you will receive on the Zero Value Settlement Date only the Zero Value Settlement Amount per Security.

In addition, the Securities may be called by UBS prior to the Maturity Date pursuant to the UBS Call Right. See “Specific Terms of the Securities — UBS Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 1.5. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day) decreases by 15% or more in value from the previously Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

For purposes of the “Loss Rebalancing Event” definition, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15 pm on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15 pm on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, (viii) a Zero Value Event date, and (ix) any calendar day after the Zero Value Event date.

“**Loss Rebalancing Valuation Date**” means:

- a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”;
- b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0, over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 1.5 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Permanent Deleveraging Event. A Permanent Deleveraging Event is expected to occur only in the narrow window of time between the occurrence of a Loss Rebalancing Event and completion of the leverage reset to 1.5 at the end of the Loss Rebalancing Valuation Date.

A “**Permanent Deleveraging Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day) decreases by 50% or more in value from the Last Reset Index Closing Level.

For purposes of the “Permanent Deleveraging Event” definition, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) a day upon which a Zero Value Event occurs, (iv) any calendar day after the occurrence of a Zero Value Event, (v) the day which is two Index Business Days prior to the first day of an applicable Measurement Period, if a Permanent Deleveraging Event occurs after 3:15 pm on such day and (vi) any calendar day from and including the Index Business Day immediately preceding the first day of an applicable Measurement Period.

In the event that a Permanent Deleveraging Event has occurred, UBS will issue a press release before 9:00 a.m. on the Index Business Day immediately following the date on which the Permanent Deleveraging Event occurred, announcing the Permanent Deleveraging Event and notifying you of the Permanent Deleveraging Valuation Dates.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- a) The “**First Permanent Deleveraging Valuation Date**” means:
 - i. Any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “- Market Disruption Event”;
 - ii. If a Permanent Deleveraging Event occurs after 3:15 pm on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event”.

The leverage of your Securities will be reset to approximately 1.5 at the close of trading on the First Permanent Deleveraging Valuation Date.

- b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event”.

The leverage of your Securities will be reset to approximately 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Value (or the “intraday indicative value”), Closing Indicative Value, market disruption events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the LIBOR base rate), the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable, the Zero Value Settlement Amount, if any, that we will pay you upon acceleration following the occurrence of a Zero Value Event, the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is a Business Day or an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Security, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of this prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 noon, New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date, Zero Value Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Accrued Fees, the Redemption Amount and Redemption Fee Amount, if any, per Security, the Call Settlement Amount, if any, per Security, the Current Principal Amount, the Zero Value Settlement Amount, and the Cash Settlement Amount, if any, per Security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid on the Stated Principal Amount of the Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a market disruption event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a market disruption event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the market disruption event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a market disruption event with respect to the Index on June 2, but no other market disruption event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a market disruption event during a four-day Final Measurement Period.

To the extent a market disruption event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a market disruption event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a market disruption event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such market disruption event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a market disruption event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such market disruption event.

Any of the following will be a market disruption event with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- c) the Index is not published; or
- d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging”.

The following events will not be market disruption events with respect to the Index:

- a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under “Description of Debt Securities We May Offer — Optional Tax Redemption” in the accompanying prospectus. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the three Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the third Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in the attached prospectus under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal: the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking,

plus

the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor or Index Calculation Agent discontinues publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), and the Security Calculation Agent approves such index as a successor index, then the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination, Coupon Amounts and the amount payable at maturity, call, acceleration upon the occurrence of a Zero Value Event or upon early redemption and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in this prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, including the Coupon Amounts, Current Principal Amount, Current Indicative Value or intraday indicative value, Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, upon early redemption or upon acceleration upon the occurrence of a Zero Value Event by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after June 2, 2020 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- c) any event that occurs on or after June 2, 2020 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a substitute index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the Index Closing Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Accrued Fees, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, the Zero Value Settlement Amount, if any, that we will pay you in the event of acceleration upon the occurrence of a Zero Value Event, if applicable, the Last Reset Index Closing Level and all related payment terms based on the Index Closing Level calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the Index), which, in turn, causes the Index Closing Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor index as if it had not been modified (*e.g.*, as if such split had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — There are potential conflicts of interest between you and the Security Calculation Agent" in this prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption, will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day or a New York Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the accompanying prospectus.

Modified Business Day

As described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the attached prospectus, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Cash Settlement Amount at Maturity,” “— UBS Call Right” and “— Early Redemption at the Option of the Holders” above.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of this prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in the accompanying prospectus.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

15. ETRACS Monthly Pay 1.5x Leveraged Mortgage REIT ETN due June 10, 2050

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

The Securities are part of a series of UBS AG debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described in the accompanying prospectus. This prospectus supplement summarizes specific financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” in the accompanying prospectus. The terms described here (*i.e.*, in this prospectus supplement) supplement those described in the accompanying prospectus and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

If a Zero Value Event occurs, for each Security you will receive a cash payment per Security on the Zero Value Settlement Date equal to the (i) the Measurement Period Cash Amount, on the immediately preceding calendar day, *plus* (ii) the Accrued Dividend, on the date on which the Zero Value Event occurred, *minus* (iii) the Accrued Fees, on the date on which the Zero Value Event occurred, as described under “— Automatic Acceleration Upon Zero Value Event.”

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the Coupon Amount. The Coupon Amount will equal the sum of the cash distributions that a hypothetical holder of Index constituents would have been entitled to receive in respect of the Index constituents during the relevant period. The Coupon Amount may be equal to zero.

The “**Coupon Amount**” means (i) on any calendar day that is not a Coupon Ex-Date, zero; and (ii) on any calendar day that is a Coupon Ex-Date, an amount per Security equal to the Accrued Dividend on the Coupon Valuation Date immediately preceding such Coupon Ex-Date. The minimum value of the Coupon Amount will be zero.

The following graphic illustrates the formula to determine the Coupon Amount on a Coupon Ex-Date, which has been simplified for ease of presentation:

$$\text{Coupon Amount} = \text{Accrued Dividend, on the immediately preceding Coupon Valuation Date}$$

If the Securities undergo a split or reverse split, the Coupon Amount will be adjusted accordingly.

The “**Accrued Dividend**” means (i) on the Initial Trade Date, zero; and (ii) on any subsequent calendar day, an amount per Security equal to (a) the Accrued Dividend as of the immediately preceding calendar day, *plus* (b) the Daily Dividend on such calendar day, *minus* the Coupon Amount on such calendar day.

If the Securities undergo a split or reverse split, the Accrued Dividend will be adjusted accordingly.

The “**Daily Dividend**” means, on any calendar day, an amount per Security equal to (a)(i) the Index Dividend Point, *times* (ii) the Leverage Factor, *times* (iii) the Current Principal Amount on the immediately preceding calendar day, *times* (iv) the Residual Factor on the immediately preceding calendar day, *divided by* (b) the Last Reset Index Closing Level.

The “**Index Dividend Point**” means, on any calendar day, an amount per Security equal to the *sum of the products* of (i) the cash value of distributions that a hypothetical holder of one share of each Index Constituent Security on such calendar day would have been entitled to receive in respect of that Index Constituent Security for those cash distributions whose “ex- dividend date” occurs on such calendar day and (ii) the number of units of that Index Constituent Security included in the Index as of such date.

The Index Dividend Point may not be publicly disseminated by the Index Calculation Agent. The data used to calculate the Index Dividend Point is the property of the Index Calculation Agent and investors may be required to pay a fee and meet any other requirements of the Index Calculation Agent, in order to access such information. See “Risk Factors — The value of the Index Dividend Point may not be publicly disseminated or otherwise freely accessible to investors”.

The Index Dividend Point, on any calendar day, represents the total cash value of distributions that a hypothetical holder of the Index Constituent Securities, in proportion to the weights of the Index Constituent Securities, would have been entitled to receive with respect to any Index Constituent Securities for those cash distributions whose “ex-dividend date” occurs on such calendar day.

The “**Coupon Payment Date**” means the fifteenth (15th) Index Business Day following each Coupon Valuation Date. The first Coupon Payment Date will be July 22, 2020, subject to adjustment as provided herein. If such day is not a Coupon Business Day, the Coupon Payment Date shall be the following Coupon Business Day.

If the Final Coupon Ex-Date occurs prior to the Maturity Date, but the Final Coupon Payment Date otherwise occurs after the Maturity Date, in such case, the Final Coupon Payment Date will be the Maturity Date, subject to adjustment as provided herein.

The “**Coupon Record Date**” means the ninth Index Business Day following each Coupon Valuation Date. If such day is not a Coupon Business Day, the Coupon Record Date shall be the immediately preceding Coupon Business Day.

The “**Coupon Ex-Date**,” with respect to a Coupon Amount, means the first Coupon Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the Coupon Business Day immediately preceding the applicable Coupon Record Date.

If a Zero Value Event occurs on an Index Business Day that would otherwise be a Coupon Ex-Date, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended. In this case, the Coupon Amount corresponding to such Coupon Ex-Date will be included in the Zero Value Settlement Amount payable on the Zero Value Settlement Date.

In addition, if a day that would otherwise be a Coupon Ex-Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended. In this case, the Coupon Amount corresponding to such Coupon Ex-date will be included in the Cash Settlement Amount or Call Settlement Amount payable at maturity or call, respectively.

The “**Coupon Valuation Date**” means the 30th day of each month and the 28th day of February, of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date, subject to adjustment described herein. The first Coupon Valuation Date will be June 30, 2020.

Notwithstanding the foregoing, with respect to cash distributions or dividends on an Index Constituent Security which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index Constituent Security fails to pay the dividend or distribution to holders of such Index Constituent Security by the scheduled payment date for such dividend or distribution, such dividend or distribution will be assumed to be zero for the purposes of calculating the applicable Coupon Amount. Any such delayed dividend or distribution payment from the issuer of an Index Constituent Security will be attributed back to the Accrued Dividend and included in the next Coupon Amount.

“**Coupon Business Day**” means any Index Business Day other than an Index Business Day on which banking institutions in New York are generally not authorized or obligated by law, regulation or executive order to open.

“**record date**” means, (i) with respect to a distribution on an Index Constituent Security, the date on which a holder of the Index Constituent Security must be registered as a stockholder/unitholder of such Index Constituent Security in order to be entitled to receive such distribution and (ii) with respect to any split or reverse split, the tenth Business Day after the announcement date.

“**ex-dividend date**” means, with respect to a distribution on an Index Constituent Security, the first Business Day on which transactions in such Index Constituent Security trade on the Primary Exchange without the right to receive such distribution.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is June 10, 2050, which will be the third Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated, you will receive at maturity a cash payment equal to the Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts you may be entitled to receive), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. If the Securities are called by UBS or accelerated upon the occurrence of a Zero Value Event, the Call Settlement Amount or Zero Value Settlement Amount, as applicable, may be zero and you may lose all or a substantial portion of your investment. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The “**Closing Indicative Value**” per Security, will be calculated as follows:

- a) On the Initial Trade Date, \$25.00 per Security;
- b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor)—Accrued Fees + Accrued Dividend
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) — Accrued Fees + Accrued Dividend + Measurement Period Cash Amount
- d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs on any Index Business Day then the Closing Indicative Value will be equal to the Zero Value Settlement Amount on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would be approximately half of the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be fully redeemed and you will receive the Zero Value Settlement Amount (which amount may be zero).

The Current Principal Amount per Security, will be calculated as follows:

- 1) From and including the Initial Trade Date to and excluding the subsequent Reset Valuation Date, \$25.00 per Security;
- 2) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:

$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the subsequent Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Reset Valuation Date.

If a Zero Value Event occurs on any Index Business Day then the Current Principal Amount will be equal to zero on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment.

You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset.

The “**Reset Valuation Date**” means:

- 1) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and.
- 2) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The definition of each valuation date is set forth below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the last Index Business Day of January, April, July and October of each calendar year beginning on July 31, 2020 and ending on April 29, 2050 (other than an Excluded Day), subject to adjustment as described under “— Market Disruption Event.”

For purposes of the “Quarterly Reset Valuation Date” definition, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor *times* the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

If a Zero Value Event occurs at any time during any Index Business Day then the Index Factor will be equal to zero subsequent to the event on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

The “**Residual Factor**” will be calculated as follows:

- a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, *divided by* (b) four.

For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (3/4), on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (2/4), on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (1/4) and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.

- c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 1.5. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is 156.926, the Index Closing Level on the Initial Trade Date, as reported by Bloomberg L.P. and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg L.P. and Reuters; provided, however, that if the closing level of the Index as reported on Bloomberg L.P. (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), then the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) is 156.926, the Index Closing Level measured on the Initial Trade Date, as determined by the Security Calculation Agent.

On any calendar day that is not an Index Business Day, the Index Closing level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or Call Measurement Period, as applicable.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- a) On the Initial Trade Date, \$25.00.
- b) On any other calendar day prior to the first day of an applicable Measurement Period:

(Current Principal Amount on the immediately preceding calendar day \times Index Factor, calculated using the Intraday Index Value) — Accrued Fees + Accrued Dividend.

- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:

(Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period \times Index Factor, calculated using the Intraday Index Value \times Residual Factor, from the immediately preceding calendar day) — Accrued Fees + Accrued Dividend + Measurement Period Cash Amount, from the immediately preceding calendar day

- d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (or intraday indicative value). **If a Zero Value Event occurs during any Index Business Day then the Current Indicative Value (or “intraday indicative value”) will be equal to the Zero Value Settlement Amount, subsequent to the event on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event.** See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (or intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee. If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly.

The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, *plus* the Daily Tracking Fee on such calendar day.
- c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- b) On any subsequent calendar day, the Daily Tracking Fee is equal to: (a) (i) 0.95%, *times* (ii) the Current Principal Amount on the immediately preceding calendar day, *times* (iii) the Index Factor, on such calendar day, *times* (iv) the Residual Factor, on the immediately preceding calendar day, *divided by* (b) 365.
- c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity, early redemption, call or acceleration upon the occurrence of a Zero Value Event.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly.

The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- b) On any subsequent calendar day, the Accrued Financing Fee is equal to: (a) the Accrued Financing Fee as of the immediately preceding calendar day, *plus* (b) the Daily Financing Fee on such calendar day.
- c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- b) On any subsequent calendar day, the Daily Financing Fee is equal to: (a) (i) 0.5, *times* (ii) the Financing Rate, on such calendar day, *times* (iii) the Current Principal Amount, on the immediately preceding calendar day, *times* (iv) the Residual Factor, on the immediately preceding calendar day, *divided by* (b) 360.
- c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.
- d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Securities. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity, early redemption, call or acceleration upon the occurrence of a Zero Value Event.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 0.95% and (b) the London interbank offered rate (ICE LIBOR) for three- month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Security Calculation Agent) (“**LIBOR**”) (or any successor base rate, as described below), as of 11:00 a.m., London time, on the immediately preceding London Business Day. The minimum value of the three-month U.S. Dollar LIBOR rate (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 0.95%

For example, 1.68275% was the three-month U.S. Dollar LIBOR rate on February 20, 2020, which was a London Business Day. The Financing Rate on February 21, 2020 would have been equal to 0.95% + 1.68275%, or 2.63275%.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued or is no longer representative of the underlying market or economic reality, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry- accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- a) \$0.00 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- b) On the first day of an applicable one-day Measurement Period:
At the close of trading on such Index Business Day, (the Current Principal Amount on the immediately preceding calendar day × Index Factor on such Index Business Day)
- c) From and including the first day of an applicable four-day Measurement Period:
 - i. At the close of trading on each Index Business Day during the applicable four-day Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount, on the calendar day immediately preceding the first day of such Measurement Period × 0.25 × Index Factor, on such Index Business Day).
 - ii. On any calendar day during an applicable four-day Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.

- d) On any calendar day after the last Index Business Day of an applicable Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business day during a four-day Measurement Period, approximately 25% of the Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of an applicable four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four- days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$100,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$100,000,000, the four (4) Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by MVRLSO <Index> on Bloomberg L.P.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently Solactive AG.

The “**Calculation Date**” means June 2, 2050, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return on the Securities is based upon the performance of the MVIS US Mortgage REITs Index (Bloomberg: “MVMORT”; Reuters: “.MVMORT”). The Index tracks the overall performance of publicly-traded mortgage REITs that are listed and incorporated in the United States and derive at least 50% of their revenues from mortgage-related activity.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon, New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on the same Index Business Day, provided that you request that we redeem a minimum of 50,000 Securities. We reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity date, subject to adjustments. In addition, if a call notice has been issued, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date}).$

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

Closing Indicative Value as of the Redemption Valuation Date – Redemption Fee Amount.

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\begin{array}{rcccl} \text{Redemption} & & & & \\ \text{Amount} & = & \text{Closing Indicative} & - & \text{Redemption Fee} \\ & & \text{Value} & & \text{Amount} \end{array}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable (less any Coupon Amounts you may be entitled to receive as of the Redemption Valuation Date), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

We discuss these matters in the accompanying prospectus under “Description of Debt Securities We May Offer — Redemption and Repayment.”

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon (New York City time) on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;

- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon (New York City time), or your Redemption Confirmation after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the Redemption Notice is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS’s Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen (18) calendar days’ prior notice to the holders of the Securities (which may be provided via press release), such redemption to occur on any Business Day that we may specify through and including the Maturity Date. Upon early redemption in the event we exercise this call right, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS’s exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event.”

The “Call Measurement Period” means:

- a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is less than \$100,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”;
- b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is equal to or greater than \$100,000,000, the four (4) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right will equal:

- (i) The Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by MVRLSO <Index> on Bloomberg L.P.

The “**Call Valuation Date**” means the date disclosed as such by UBS in its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right.

In any notice to holders exercising the UBS Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Call Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment upon a call. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts you may be entitled to receive), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

In addition, upon the occurrence of a Zero Value Event, the Securities may be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

A “**Zero Value Event**” occurs if, on any Index Business Day (other than an Excluded Day), the Intraday Index Value decreases by 66.66667% or more in value from the Last Reset Index Closing Level. From immediately after the Zero Value Event and on all future calendar days, the Index Factor and the Current Principal Amount will be set equal to zero. The Accrued Dividend and Accrued Fees will be fixed at their respective values on the Zero Value Event date and will stay unchanged on all future calendar days.

When the Intraday Index Value decreases 66.66667% in value from the Last Reset Index Closing Level, the Index Factor will equal zero. A Zero Value Event represents the first instance when the effective unleveraged notional amount that is deemed invested in the Index per Security equals zero. It will have the effect of permanently resetting the value of your Securities to a fixed value (which may be zero) and accelerating the Securities. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. A Zero Value Event is expected to occur only in the narrow window of time between the occurrence of a Permanent Deleveraging Event and completion of the leverage reset to 1.0 at the end of the Second Permanent Deleveraging Valuation Date.

For the purposes of the “Zero Value Event” definition, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on which a Zero Value Event has already occurred, (iii) any calendar day after the occurrence of a Zero Value Event, and (iv) any calendar day after the last day of an applicable Measurement Period.

If a Zero Value Event occurs, all issued and outstanding Securities will be automatically terminated and mandatorily redeemed by UBS and you will receive the Zero Value Settlement Amount on the Zero Value Settlement Date. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event and specify the relevant Zero Value Settlement Date and Zero Value Settlement Amount in respect of your investment in the Securities. The Securities will be suspended from trading intra-day shortly after the event occurs and will likely not be open for trading again on NYSE Arca before the Zero Value Settlement Date.

If a Zero Value Event occurs on an Index Business Day that would otherwise be a Coupon Ex-Date, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended.

The “**Zero Value Settlement Amount**” per Security will be calculated as follows:

- a) On any calendar day, to but excluding the first day of an applicable Measurement Period:
 - (i) the Accrued Dividend, *minus* (ii) the Accrued Fees, on the date on which the Zero Value Event occurred.
- b) From and including the first day of an applicable Measurement Period:
 - (i) the Measurement Period Cash Amount on the immediately preceding calendar day, *plus* (ii) the Accrued Dividend, *minus* (iii) the Accrued Fees, on the date on which the Zero Value Event occurred.
- c) The minimum value of the Zero Value Settlement Amount will be zero.

For example:

- a) If the Accrued Dividend was \$0.04, the Accrued Fees was \$0.01, and the Measurement Period Cash Amount was \$0, then the Zero Value Settlement Amount would be \$0.03.
- b) If the Accrued Dividend was \$0.01, the Accrued Fees was \$0.05, and the Measurement Period Cash Amount was \$0, then the Zero Value Settlement Amount would be \$0.

- c) If the Zero Value Event occurred during a four-day Measurement Period, and the Accrued Dividend was \$0.01, the Accrued Fees was \$0.03, and the Measurement Period Cash Amount on the immediately preceding calendar day was \$6.59, then the Zero Value Settlement Amount would be \$6.57.

The following graphics illustrate the formula to determine the Zero Value Settlement Amount, which has been simplified for ease of presentation:

On any calendar day, to but excluding the first day of an applicable four-day Measurement Period:

$$\text{Zero Value Settlement Amount} = \text{Accrued Dividend} - \text{Accrued Fees on date Zero Value Event occurred}$$

From and including the first day of an applicable Measurement Period:

$$\text{Zero Value Settlement Amount} = \text{Measurement Period Cash Amount on immediately preceding calendar day} + \text{Accrued Dividend} - \text{Accrued Fees on date Zero Value Event occurred}$$

The “**Zero Value Settlement Date**” will be the third Index Business Day following the date on which the Zero Value Event occurred. For a detailed description of how the Current Indicative Value (or intraday indicative value) of the Securities is calculated see “Valuation of the Index and the Securities”.

You may lose all or a substantial portion of your investment upon the occurrence of a Zero Value Event. Upon the occurrence of a Zero Value Event you will receive on the Zero Value Settlement Date only the Zero Value Settlement Amount per Security.

In addition, the Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 1.5. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day) decreases by 15% or more in value from the previously Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

For purposes of the “Loss Rebalancing Event” definition, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15pm on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15pm on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, (viii) a Zero Value Event date, and (ix) any calendar day after the Zero Value Event date.

“**Loss Rebalancing Valuation Date**” means:

- a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”;
- b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0, over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 1.5 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Permanent Deleveraging Event. A Permanent Deleveraging Event is expected to occur only in the narrow window of time between the occurrence of a Loss Rebalancing Event and completion of the leverage reset to 1.5 at the end of the Loss Rebalancing Valuation Date.

A “**Permanent Deleveraging Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day) decreases by 50% or more in value from the Last Reset Index Closing Level.

For purposes of the “Permanent Deleveraging Event” definition, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) a day upon which a Zero Value Event occurs, (iv) any calendar day after the occurrence of a Zero Value Event, (v) the day which is two Index Business Days prior to the first day of an applicable Measurement Period, if a Permanent Deleveraging Event occurs after 3:15pm on such day and (vi) any calendar day from and including the Index Business Day immediately preceding the first day of an applicable Measurement Period.

In the event that a Permanent Deleveraging Event has occurred, UBS will issue a press release before 9:00

a.m. on the Index Business Day immediately following the date on which the Permanent Deleveraging Event occurred, announcing the Permanent Deleveraging Event and notifying you of the Permanent Deleveraging Valuation Dates.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- a) The “**First Permanent Deleveraging Valuation Date**” means:
 - i. Any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “- Market Disruption Event”;
 - ii. If a Permanent Deleveraging Event occurs after 3:15pm on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event”.

The leverage of your Securities will be reset to approximately 1.5 at the close of trading on the First Permanent Deleveraging Valuation Date.

- b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event”.

The leverage of your Securities will be reset to approximately 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Value (or the “intraday indicative value”), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the LIBOR base rate), the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable, the Zero Value Settlement Amount, if any, that we will pay you upon acceleration following the occurrence of a Zero Value Event, the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is a Business Day or an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Security, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of this prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 noon, New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date, Zero Value Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Accrued Fees, the Redemption Amount and Redemption Fee Amount, if any, per Security, the Call Settlement Amount, if any, per Security, the Current Principal Amount, the Zero Value Settlement Amount, and the Cash Settlement Amount, if any, per Security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid on the Stated Principal Amount of the Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a Market Disruption Event with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- c) the Index is not published; or
- d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging”.

The following events will not be Market Disruption Events with respect to the Index:

- a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under “Description of Debt Securities We May Offer — Optional Tax Redemption” in the accompanying prospectus. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the three Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the third Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in the attached prospectus under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking,

plus

the reasonable expenses, including reasonable attorneys' fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor or Index Calculation Agent discontinue publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a "**successor index**"), and the Security Calculation Agent approves such index as a successor index, then the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination, Coupon Amounts and the amount payable at maturity, call, acceleration upon the occurrence of a Zero Value Event or upon early redemption and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor or Index Calculation Agent discontinue publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in this prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, including the Coupon Amounts, Current Principal Amount, Current Indicative Value or intraday indicative value, Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, upon early redemption or upon acceleration upon the occurrence of a Zero Value Event by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after June 2, 2020 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- c) any event that occurs on or after June 2, 2020 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a substitute index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the Index Closing Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Accrued Fees, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, the Zero Value Settlement Amount, if any, that we will pay you in the event of acceleration upon the occurrence of a Zero Value Event, if applicable, the Last Reset Index Closing Level and all related payment terms based on the Index Closing Level calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the Index), which, in turn, causes the Index Closing Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor index as if it had not been modified (*e.g.*, as if such split had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — There are potential conflicts of interest between you and the Security Calculation Agent" in this prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption, will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day or a New York Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in "Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities" in the accompanying prospectus.

Modified Business Day

As described in "Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities" in the attached prospectus, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under "— Cash Settlement Amount at Maturity," "— UBS's Call Right" and "— Early Redemption at the Option of the Holders" above.

Reissuances or Reopened Issues

We may, at our sole discretion, "reopen" or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of this prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to "Description of Debt Securities We May Offer — Amounts That We May Issue" in the accompanying prospectus.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC's settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

16. ETRACS Monthly Pay 1.5x Leveraged Closed-End Fund Index ETN due June 10, 2050

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

The Securities are part of a series of UBS AG debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described in the accompanying prospectus. This prospectus supplement summarizes specific financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” in the accompanying prospectus. The terms described here (*i.e.*, in this prospectus supplement) supplement those described in the accompanying prospectus and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

Principal Amount: \$100,000,000

Issuer: UBS AG (London Branch)

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

If a Zero Value Event occurs, for each Security you will receive a cash payment per Security on the Zero Value Settlement Date equal to the (i) the Measurement Period Cash Amount, on the immediately preceding calendar day, *plus* (ii) the Accrued Dividend, on the date on which the Zero Value Event occurred, *minus* (iii) the Accrued Fees, on the date on which the Zero Value Event occurred, as described under “— Automatic Acceleration Upon Zero Value Event.”

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the Coupon Amount. The Coupon Amount will equal the sum of the cash distributions that a hypothetical holder of Index constituents would have been entitled to receive in respect of the Index constituents during the relevant period. The Coupon Amount may be equal to zero.

The “**Coupon Amount**” means (i) on any calendar day that is not a Coupon Ex-Date, zero; and (ii) on any calendar day that is a Coupon Ex-Date, an amount per Security equal to the Accrued Dividend on the Coupon Valuation Date immediately preceding such Coupon Ex-Date. The minimum value of the Coupon Amount will be zero.

The following graphic illustrates the formula to determine the Coupon Amount on a Coupon Ex-Date, which has been simplified for ease of presentation:

$$\text{Coupon Amount} = \text{Accrued Dividend, on the immediately preceding Coupon Valuation Date}$$

If the Securities undergo a split or reverse split, the Coupon Amount will be adjusted accordingly.

The “**Accrued Dividend**” means (i) on the Initial Trade Date, zero; and (ii) on any subsequent calendar day, an amount per Security equal to (a) the Accrued Dividend as of the immediately preceding calendar day, *plus* (b) the Daily Dividend on such calendar day, *minus* the Coupon Amount on such calendar day.

If the Securities undergo a split or reverse split, the Accrued Dividend will be adjusted accordingly.

The “**Daily Dividend**” means, on any calendar day, an amount per Security equal to (a)(i) the Index Dividend Point, *times* (ii) the Leverage Factor, *times* (iii) the Current Principal Amount on the immediately preceding calendar day, *times* (iv) the Residual Factor on the immediately preceding calendar day, *divided by* (b) the Last Reset Index Closing Level.

The “**Index Dividend Point**” means, on any calendar day, an amount per Security equal to the *sum of the products* of (i) the cash value of distributions that a hypothetical holder of one share of each Index Constituent Security on such calendar day would have been entitled to receive in respect of that Index Constituent Security for those cash distributions whose “ex-dividend date” occurs on such calendar day and (ii) the number of units of that Index Constituent Security included in the Index as of such date.

The Index Dividend Point may not be publicly disseminated by the Index Calculation Agent. The data used to calculate the Index Dividend Point is the property of the Index Calculation Agent and investors may be required to pay a fee and meet any other requirements of the Index Calculation Agent, in order to access such information. See “Risk Factors — The value of the Index Dividend Point may not be publicly disseminated or otherwise freely accessible to investors”.

The Index Dividend Point, on any calendar day, represents the total cash value of distributions that a hypothetical holder of the Index Constituent Securities, in proportion to the weights of the Index Constituent Securities, would have been entitled to receive with respect to any Index Constituent Securities for those cash distributions whose “ex-dividend date” occurs on such calendar day.

The “**Coupon Payment Date**” means the fifteenth (15th) Index Business Day following each Coupon Valuation Date. The first Coupon Payment Date will be July 22, 2020, subject to adjustment as provided herein. If such day is not a Coupon Business Day, the Coupon Payment Date shall be the following Coupon Business Day.

If the Final Coupon Ex-Date occurs prior to the Maturity Date, but the Final Coupon Payment Date otherwise occurs after the Maturity Date, in such case, the Final Coupon Payment Date will be the Maturity Date, subject to adjustment as provided herein.

The “**Coupon Record Date**” means the ninth Index Business Day following each Coupon Valuation Date. If such day is not a Coupon Business Day, the Coupon Record Date shall be the immediately preceding Coupon Business Day.

The “**Coupon Ex-Date**,” with respect to a Coupon Amount, means the first Coupon Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the Coupon Business Day immediately preceding the applicable Coupon Record Date.

If a Zero Value Event occurs on an Index Business Day that would otherwise be a Coupon Ex-Date, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended. In this case, the Coupon Amount corresponding to such Coupon Ex-Date will be included in the Zero Value Settlement Amount payable on the Zero Value Settlement Date.

In addition, if a day that would otherwise be a Coupon Ex-Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended. In this case, the Coupon Amount corresponding to such Coupon Ex-date will be included in the Cash Settlement Amount or Call Settlement Amount payable at maturity or call, respectively.

The “**Coupon Valuation Date**” means the 30th day of each month and the 28th day of February, of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date, subject to adjustment described herein. The first Coupon Valuation Date will be June 30, 2020.

Notwithstanding the foregoing, with respect to cash distributions or dividends on an Index Constituent Security which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index Constituent Security fails to pay the dividend or distribution to holders of such Index Constituent Security by the scheduled payment date for such dividend or distribution, such dividend or distribution will be assumed to be zero for the purposes of calculating the applicable Coupon Amount. Any such delayed dividend or distribution payment from the issuer of an Index Constituent Security will be attributed back to the Accrued Dividend and included in the next Coupon Amount.

“**Coupon Business Day**” means any Index Business Day other than an Index Business Day on which banking institutions in New York are generally not authorized or obligated by law, regulation or executive order to open.

“**record date**” means, (i) with respect to a distribution on an Index Constituent Security, the date on which a holder of the Index Constituent Security must be registered as a stockholder/unitholder of such Index Constituent Security in order to be entitled to receive such distribution and (ii) with respect to any split or reverse split, the tenth Business Day after the announcement date.

“**ex-dividend date**” means, with respect to a distribution on an Index Constituent Security, the first Business Day on which transactions in such Index Constituent Security trade on the Primary Exchange without the right to receive such distribution.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is June 10, 2050, which will be the third Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated, you will receive at maturity a cash payment equal to the Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts you may be entitled to receive), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. If the Securities are called by UBS or accelerated upon the occurrence of a Zero Value Event, the Call Settlement Amount or Zero Value Settlement Amount, as applicable, may be zero and you may lose all or a substantial portion of your investment. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The “**Closing Indicative Value**” per Security, will be calculated as follows:

- a) On the Initial Trade Date, \$25.00 per Security;
- b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor)—Accrued Fees + Accrued Dividend
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) — Accrued Fees + Accrued Dividend + Measurement Period Cash Amount
- d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs on any Index Business Day then the Closing Indicative Value will be equal to the Zero Value Settlement Amount on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would be approximately half of the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be fully redeemed and you will receive the Zero Value Settlement Amount (which amount may be zero).

The Current Principal Amount per Security, will be calculated as follows:

- 1) From and including the Initial Trade Date to and excluding the subsequent Reset Valuation Date, \$25.00 per Security;
- 2) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:

$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the subsequent Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Reset Valuation Date.

If a Zero Value Event occurs on any Index Business Day then the Current Principal Amount will be equal to zero on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment.

You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly. At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset.

The “**Reset Valuation Date**” means:

- 1) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and.
- 2) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The definition of each valuation date is set forth below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the last Index Business Day of January, April, July and October of each calendar year beginning on July 31, 2020 and ending on April 29, 2050 (other than an Excluded Day), subject to adjustment as described under “— Market Disruption Event.”

For purposes of the “Quarterly Reset Valuation Date” definition, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor *times* the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

If a Zero Value Event occurs at any time during any Index Business Day then the Index Factor will be equal to zero subsequent to the event on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

The “**Residual Factor**” will be calculated as follows:

- a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, *divided by* (b) four. For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (3/4), on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (2/4), on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal (1/4) and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.
- c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 1.5. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is 622.5081, the Index Closing Level on the Initial Trade Date, as reported by Bloomberg L.P. and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg L.P. and Reuters; provided, however, that if the closing level of the Index as reported on Bloomberg L.P. (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), then the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) is 622.5081, the Index Closing Level measured on the Initial Trade Date, as determined by the Security Calculation Agent.

On any calendar day that is not an Index Business Day, the Index Closing level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or Call Measurement Period, as applicable.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- a) On the Initial Trade Date, \$25.00.
- b) On any other calendar day prior to the first day of an applicable Measurement Period:
(Current Principal Amount on the immediately preceding calendar day × Index Factor, calculated using the Intraday Index Value) —
Accrued Fees + Accrued Dividend.
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to: (Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period × Index Factor, calculated using the Intraday Index Value × Residual Factor, from the immediately preceding calendar day) — Accrued Fees + Accrued Dividend + Measurement Period Cash Amount, from the immediately preceding calendar day
- d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (or intraday indicative value). **If a Zero Value Event occurs during any Index Business Day then the Current Indicative Value (or “intraday indicative value”) will be equal to the Zero Value Settlement Amount, subsequent to the event on the date on which the Zero Value Event occurred, and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will likely lose all or substantially all of their investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event.** See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (or intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly.

The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, *plus* the Daily Tracking Fee on such calendar day.
- c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- b) On any subsequent calendar day, the Daily Tracking Fee is equal to: (a) (i) 0.95%, *times* (ii) the Current Principal Amount on the immediately preceding calendar day, *times* (iii) the Index Factor, on such calendar day, *times* (iv) the Residual Factor, on the immediately preceding calendar day, *divided by* (b) 365.
- c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity, early redemption, call or acceleration upon the occurrence of a Zero Value Event.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly.

The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- b) On any subsequent calendar day, the Accrued Financing Fee is equal to: (a) the Accrued Financing Fee as of the immediately preceding calendar day, *plus* (b) the Daily Financing Fee on such calendar day.
- c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- b) On any subsequent calendar day, the Daily Financing Fee is equal to: (a) (i) 0.5, *times* (ii) the Financing Rate, on such calendar day, *times* (iii) the Current Principal Amount, on the immediately preceding calendar day, *times* (iv) the Residual Factor, on the immediately preceding calendar day, *divided by* (b) 360.
- c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.

- d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Securities. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity, early redemption, call or acceleration upon the occurrence of a Zero Value Event.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 0.95% and (b) the London interbank offered rate (ICE LIBOR) for three- month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Security Calculation Agent) (“**LIBOR**”) (or any successor base rate, as described below), as of 11:00 a.m., London time, on the immediately preceding London Business Day. The minimum value of the three-month U.S. Dollar LIBOR rate (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 0.95%

For example, 1.68275% was the three-month U.S. Dollar LIBOR rate on February 20, 2020, which was a London Business Day. The Financing Rate on February 21, 2020 would have been equal to 0.95% + 1.68275%, or 2.63275%.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued or is no longer representative of the underlying market or economic reality, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry- accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- a) \$0.00 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- b) On the first day of an applicable one-day Measurement Period:
At the close of trading on such Index Business Day, (the Current Principal Amount on the immediately preceding calendar day × Index Factor on such Index Business Day)
- c) From and including the first day of an applicable four-day Measurement Period:
 - i. At the close of trading on each Index Business Day during the applicable four-day Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount, on the calendar day immediately preceding the first day of such Measurement Period × 0.25 × Index Factor, on such Index Business Day).
 - ii. On any calendar day during an applicable four-day Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.
- d) On any calendar day after the last Index Business Day of an applicable Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business day during a four-day Measurement Period, approximately 25% of the Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of an applicable four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$50,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$50,000,000, the four (4) Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by CEFDSO <Index> on Bloomberg L.P.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently ICE Data Services.

The “**Calculation Date**” means June 2, 2050, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return on the Securities is based upon the performance of the S-Network Composite Closed-End Fund Index (Bloomberg: “CEFX”). The Index is a mutual fund index designed to serve as a benchmark for closed-end funds listed in the U.S. that are principally engaged in asset management processes designed to produce taxable annual yield.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon, New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on the same Index Business Day, provided that you request that we redeem a minimum of 50,000 Securities. We reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity date, subject to adjustments. In addition, if a call notice has been issued, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date}).$

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}.$

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\begin{array}{rcccl} \text{Redemption} & & \text{Closing Indicative} & & \text{Redemption Fee} \\ \text{Amount} & = & \text{Value} & - & \text{Amount} \end{array}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable (less any Coupon Amounts you may be entitled to receive as of the Redemption Valuation Date), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

We discuss these matters in the accompanying prospectus under “Description of Debt Securities We May Offer — Redemption and Repayment.”

The Redemption Amount is meant to induce arbitrageurs to counteract any trading of the Securities at a premium or discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon (New York City time) on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon (New York City time), or your Redemption Confirmation after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the Redemption Notice is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS's Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen (18) calendar days' prior notice to the holders of the Securities (which may be provided via press release), such redemption to occur on any Business Day that we may specify through and including the Maturity Date. Upon early redemption in the event we exercise this call right, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the "**Call Settlement Amount**."

If the amount calculated above is equal to or less than zero, the payment upon UBS's exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Business Day following the last Index Business Day in the Call Measurement Period (the "**Call Settlement Date**"). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under "— Market Disruption Event."

The "**Call Measurement Period**" means:

- a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is less than \$50,000,000, the Call Valuation Date, subject to adjustments as described under "— Market Disruption Event";
- b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right is equal to or greater than \$50,000,000, the four (4) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under "— Market Disruption Event."

For the purpose of determining the Final Measurement Period, the "**Market Value**" of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right will equal:

- (i) The Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by CEFDSO <Index> on Bloomberg L.P.

The "**Call Valuation Date**" means the date disclosed as such by UBS in its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right.

In any notice to holders exercising the UBS Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Call Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment upon a call. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees (less any Coupon Amounts you may be entitled to receive), or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

In addition, upon the occurrence of a Zero Value Event, the Securities may be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

A “**Zero Value Event**” occurs if, on any Index Business Day (other than an Excluded Day), the Intraday Index Value decreases by 66.66667% or more in value from the Last Reset Index Closing Level. From immediately after the Zero Value Event and on all future calendar days, the Index Factor and the Current Principal Amount will be set equal to zero. The Accrued Dividend and Accrued Fees will be fixed at their respective values on the Zero Value Event date and will stay unchanged on all future calendar days.

When the Intraday Index Value decreases 66.66667% in value from the Last Reset Index Closing Level, the Index Factor will equal zero. A Zero Value Event represents the first instance when the effective unleveraged notional amount that is deemed invested in the Index per Security equals zero. It will have the effect of permanently resetting the value of your Securities to a fixed value (which may be zero) and accelerating the Securities. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. A Zero Value Event is expected to occur only in the narrow window of time between the occurrence of a Permanent Deleveraging Event and completion of the leverage reset to 1.0 at the end of the Second Permanent Deleveraging Valuation Date.

For the purposes of the “Zero Value Event” definition, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on which a Zero Value Event has already occurred, (iii) any calendar day after the occurrence of a Zero Value Event, and (iv) any calendar day after the last day of an applicable Measurement Period.

If a Zero Value Event occurs, all issued and outstanding Securities will be automatically terminated and mandatorily redeemed by UBS and you will receive the Zero Value Settlement Amount on the Zero Value Settlement Date. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event and specify the relevant Zero Value Settlement Date and Zero Value Settlement Amount in respect of your investment in the Securities. The Securities will be suspended from trading intra-day shortly after the event occurs and will likely not be open for trading again on NYSE Arca before the Zero Value Settlement Date.

If a Zero Value Event occurs on an Index Business Day that would otherwise be a Coupon Ex-Date, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended.

The “**Zero Value Settlement Amount**” per Security will be calculated as follows:

- a) On any calendar day, to but excluding the first day of an applicable Measurement Period:
 - (i) the Accrued Dividend, *minus* (ii) the Accrued Fees, on the date on which the Zero Value Event occurred.
- b) From and including the first day of an applicable Measurement Period:
 - (i) the Measurement Period Cash Amount on the immediately preceding calendar day, *plus* (ii) the Accrued Dividend, *minus* (iii) the Accrued Fees, on the date on which the Zero Value Event occurred.
- c) The minimum value of the Zero Value Settlement Amount will be zero.

For example:

- a) If the Accrued Dividend was \$0.04, the Accrued Fees was \$0.01, and the Measurement Period Cash Amount was \$0, then the Zero Value Settlement Amount would be \$0.03.
- b) If the Accrued Dividend was \$0.01, the Accrued Fees was \$0.05, and the Measurement Period Cash Amount was \$0, then the Zero Value Settlement Amount would be \$0.
- c) If the Zero Value Event occurred during a four-day Measurement Period, and the Accrued Dividend was \$0.01, the Accrued Fees was \$0.03, and the Measurement Period Cash Amount on the immediately preceding calendar day was \$6.59, then the Zero Value Settlement Amount would be \$6.57.

The following graphics illustrate the formula to determine the Zero Value Settlement Amount, which has been simplified for ease of presentation:

On any calendar day, to but excluding the first day of an applicable four-day Measurement Period:

$$\text{Zero Value Settlement Amount} = \text{Accrued Dividend} - \text{Accrued Fees on date Zero Value Event occurred}$$

From and including the first day of an applicable Measurement Period:

$$\text{Zero Value Settlement Amount} = \text{Measurement Period Cash Amount on immediately preceding calendar day} + \text{Accrued Dividend} - \text{Accrued Fees on date Zero Value Event occurred}$$

The “**Zero Value Settlement Date**” will be the third Index Business Day following the date on which the Zero Value Event occurred. For a detailed description of how the Current Indicative Value (or intraday indicative value) of the Securities is calculated see “Valuation of the Index and the Securities”.

You may lose all or a substantial portion of your investment upon the occurrence of a Zero Value Event. Upon the occurrence of a Zero Value Event you will receive on the Zero Value Settlement Date only the Zero Value Settlement Amount per Security.

In addition, the Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 1.5. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day) decreases by 15% or more in value from the previously Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

For purposes of the “Loss Rebalancing Event” definition, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15pm on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15pm on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, (viii) a Zero Value Event date, and (ix) any calendar day after the Zero Value Event date.

“**Loss Rebalancing Valuation Date**” means:

- a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”;
- b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0, over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 1.5 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Permanent Deleveraging Event. A Permanent Deleveraging Event is expected to occur only in the narrow window of time between the occurrence of a Loss Rebalancing Event and completion of the leverage reset to 1.5 at the end of the Loss Rebalancing Valuation Date.

A “**Permanent Deleveraging Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day) decreases by 50% or more in value from the Last Reset Index Closing Level.

For purposes of the “Permanent Deleveraging Event” definition, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) a day upon which a Zero Value Event occurs, (iv) any calendar day after the occurrence of a Zero Value Event, (v) the day which is two Index Business Days prior to the first day of an applicable Measurement Period, if a Permanent Deleveraging Event occurs after 3:15pm on such day and (vi) any calendar day from and including the Index Business Day immediately preceding the first day of an applicable Measurement Period.

In the event that a Permanent Deleveraging Event has occurred, UBS will issue a press release before 9:00 a.m. on the Index Business Day immediately following the date on which the Permanent Deleveraging Event occurred, announcing the Permanent Deleveraging Event and notifying you of the Permanent Deleveraging Valuation Dates.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- a) The “**First Permanent Deleveraging Valuation Date**” means:
- i. Any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “- Market Disruption Event”;
 - ii. If a Permanent Deleveraging Event occurs after 3:15pm on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event”.

The leverage of your Securities will be reset to approximately 1.5 at the close of trading on the First Permanent Deleveraging Valuation Date.

- b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event”.

The leverage of your Securities will be reset to approximately 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Value (or the “intraday indicative value”), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the LIBOR base rate), the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable, the Zero Value Settlement Amount, if any, that we will pay you upon acceleration following the occurrence of a Zero Value Event, the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is a Business Day or an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Security, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of this prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 noon, New York City time, on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date, Zero Value Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Accrued Fees, the Redemption Amount and Redemption Fee Amount, if any, per Security, the Call Settlement Amount, if any, per Security, the Current Principal Amount, the Zero Value Settlement Amount, and the Cash Settlement Amount, if any, per Security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid on the Stated Principal Amount of the Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a Market Disruption Event with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- c) the Index is not published; or
- d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled "Use of Proceeds and Hedging".

The following events will not be Market Disruption Events with respect to the Index:

- a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an "absence of trading" in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under "Description of Debt Securities We May Offer — Optional Tax Redemption" in the accompanying prospectus. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the three Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the third Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in the attached prospectus under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking,

plus

the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify

the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of

any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or

- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor or Index Calculation Agent discontinues publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), and the Security Calculation Agent approves such index as a successor index, then the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination, Coupon Amounts and the amount payable at maturity, call, acceleration upon the occurrence of a Zero Value Event or upon early redemption and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in this prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, including the Coupon Amounts, Current Principal Amount, Current Indicative Value or intraday indicative value, Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, upon early redemption or upon acceleration upon the occurrence of a Zero Value Event by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties' ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after June 2, 2020 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- c) any event that occurs on or after June 2, 2020 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a substitute index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the Index Closing Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Accrued Fees, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, the Zero Value Settlement Amount, if any, that we will pay you in the event of acceleration upon the occurrence of a Zero Value Event, if applicable, the Last Reset Index Closing Level and all related payment terms based on the Index Closing Level calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the Index), which, in turn, causes the Index Closing Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor index as if it had not been modified (*e.g.*, as if such split had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — There are potential conflicts of interest between you and the Security Calculation Agent" in this prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity, call or acceleration upon the occurrence of a Zero Value Event, or upon early redemption, will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day or a New York Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the accompanying prospectus.

Modified Business Day

As described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the attached prospectus, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Cash Settlement Amount at Maturity,” “— UBS’s Call Right” and “— Early Redemption at the Option of the Holders” above.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of this prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in the accompanying prospectus.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

17. ETRACS Alerian Midstream Energy Index due June 21, 2050

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

The Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described in the accompanying prospectus. This prospectus supplement summarizes specific financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” in the accompanying prospectus. The terms described here (i.e., in this prospectus supplement) supplement those described in the accompanying prospectus and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

Principal Amount: \$400,000,000

Issuer: UBS AG (London Branch)

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or call, or upon early redemption. Instead, at maturity, you will receive a cash payment the amount of which will vary depending on the performance and path of the Index calculated in accordance with the formula set forth below and will be reduced by the Daily Tracking Fee as of the last Index Business Day in the applicable Measurement Period or Redemption Valuation Date.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment on the Redemption Date equal to the Redemption Amount as described below under “— Early Redemption at the Option of the Holders.” If the amount so calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

If we elect to exercise our call right to redeem all of the Securities, subject to compliance with the procedures set forth below, for each Security you will receive a cash payment on the Call Settlement Date equal to the Call Settlement Amount, as described below under “— UBS’s Call Right.” If the amount so calculated is equal to or less than zero, the Call Settlement Amount will be zero and you will not receive a cash payment.

The Securities may pay a cash coupon during their term.

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the Coupon Amount, if any. The Coupon Amount will equal the sum of the cash distributions that a hypothetical holder of Index Constituent Securities would have been entitled to receive in respect of the Index Constituent Securities during the relevant period. The Coupon Amount may be equal to zero.

The “**Coupon Amount**” means (i) on any calendar day that is not a Coupon Ex-Date, an amount per Security equal to zero; and (ii) on any calendar day that is a Coupon Ex-Date, an amount per Security equal to the Accrued Dividend on the Coupon Valuation Date immediately preceding such Coupon Ex-Date. The minimum value of the Coupon Amount will be zero.

The following graphic illustrates the formula to determine the Coupon Amount on a Coupon Ex-Date, which has been simplified for ease of presentation:

$$\text{Coupon Amount} = \text{Accrued Dividend, on the immediately preceding Coupon Valuation Date}$$

If the Securities undergo a split or reverse split, the Coupon Amount will be adjusted accordingly.

Notwithstanding the foregoing, with respect to cash distributions or dividends on an Index Constituent Security which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index Constituent Security fails to pay the dividend or cash distribution to holders of such Index Constituent Security by the scheduled payment date for such dividend or cash distribution, such dividend or distribution will be assumed to be zero for the purposes of calculating the applicable Coupon Amount. Any such delayed dividend or cash distribution payments from the issuer of an Index Constituent Security will be attributed back to the Accrued Dividend and included in the next Coupon Amount.

The “**Accrued Dividend**” means, as of any date of determination, an amount per Security equal to: (i) on the Initial Trade Date, \$0.00 per Security; and (ii) on any subsequent calendar day (a) the Accrued Dividend as of the immediately preceding calendar day, *plus* (b) the Daily Dividend on such calendar day, *minus* (c) the Coupon Amount on such calendar day.

If the Securities undergo a split or reverse split, the Accrued Dividend will be adjusted accordingly.

The “**Daily Dividend**” means on any calendar day, an amount per Security equal to:

(a)(i) the Index Dividend Point, *times* (ii) the Current Principal Amount on the immediately preceding calendar day, *divided by* (b) the Index Closing Level on the immediately preceding calendar day.

The Daily Dividend will be rounded to four decimal places.

The Daily Dividend is intended to approximate the amount of distributions in US Dollars that a holder of the Securities would receive if such holder held an unleveraged investment in the Index Constituent Securities directly.

The “**Index Dividend Point**” on any calendar day, means an amount per Security equal to (a) (the *sum of the products of* (i) the cash value of distributions, that a hypothetical holder of one share of an Index Constituent Security, whose “ex-dividend date” occurs on such calendar day, would have been entitled to receive (adjustments relating to foreign exchange rate fixings or dividend withholding taxes, described below), and (ii) the number of index shares of that Index Constituent Security included in the Index as of such date), *divided by* (b) the Divisor as of such date.

In respect of distributions on any Canadian Index Constituent Securities, on their respective “ex-dividend date”, the cash value of distributions will be deemed to be converted from Canadian Dollars to U.S. Dollars at the WM / Reuters USD/CAD foreign exchange rate as of 4:00 p.m. Eastern Time on such ex-dividend date (the “**WM / Reuters FX Rate**”). These mid-market fixings are calculated by the WM Company based on Reuters data and appear on the Reuters pages WMRA.

Notwithstanding the foregoing, if the Security Calculation Agent determines on the relevant determination date that:

- (a) the WM/ Reuters FX Rate has been discontinued (or otherwise ceases to be published), materially disrupted or is no longer representative of the underlying market or economic reality; or
- (b) 4:00 p.m. Eastern Time is no longer the appropriate time for fixing the WM/Reuters FX Rate for any of the reasons set forth in (a) above,

then the Security Calculation Agent will, in the case of (a) use a substitute or successor provider of foreign exchange rates that it has determined in its sole discretion is most comparable to the WM / Reuters FX Rate, provided that if the Security Calculation Agent determines that there is an industry-accepted successor provider of foreign exchange rates, then the Security Calculation Agent shall use such successor provider of foreign exchange rates; or in the case of (b) use such other time for fixing of the foreign exchange rate as it has determined in its sole discretion is appropriate based on the WM / Reuters FX Rate, or such substitute or successor provider of foreign exchange rates, as it has determined in its sole discretion is most comparable to the WM / Reuters FX Rate, as set forth above.

As of the date of this prospectus supplement, the applicable dividend withholding tax would reduce the cash value of distributions in respect of any Canadian Index Constituent Security by 15% for purposes of calculating the Index Dividend Point. The 15% rate is subject to adjustment if there is a change under Canadian law or the tax treaty between the United States and Canada or to the Canadian dividend withholding tax rate applicable to a U.S. holder of a Canadian Index Constituent Security that is eligible for the benefits of the tax treaty between the United States and Canada.

In the event that an adjustment relating to foreign exchange rate fixings or dividend withholding taxes is made, we will issue a press release announcing such adjustment and the effective date for such adjustment.

The Index Dividend Point, on any calendar day, represents the total cash value of distributions that a hypothetical holder of the Index Constituent Securities, in proportion to the weights of the Index Constituent Securities, would have been entitled to receive with respect to any Index Constituent Security for those cash distributions whose “ex-dividend date” occurs on such calendar day.

The Index Dividend Point may not be publicly disseminated by the Index Calculation Agent. The data used to calculate the Index Dividend Point is the property of the Index Calculation Agent and investors may be required to pay a fee and meet any other requirements of the Index Calculation Agent in order to access such information. See “Risk Factors — The value of the Index Dividend Point may not be publicly disseminated or otherwise freely accessible to investors”.

The “**Divisor**” means, as of any date of determination, the divisor used by the Index Calculation Agent to calculate the Index Closing Level.

The “**Coupon Payment Date**” means the 15th Index Business Day following each Coupon Valuation Date. The first Coupon Payment Date will be October 21, 2020, subject to adjustment. If such day is not a Coupon Business Day, the Coupon Payment Date shall be the following Coupon Business Day.

If the final Coupon Ex-Date occurs prior to the Maturity Date, but the final Coupon Payment Date otherwise occurs after the Maturity Date, in such case, the final Coupon Payment Date will be the Maturity Date, subject to adjustment.

The “**Coupon Record Date**” means the ninth Index Business Day following each Coupon Valuation Date. If such day is not a Coupon Business day, the Coupon Record Date shall be the immediately preceding Coupon Business Day.

The “**Coupon Ex-Date**,” with respect to a Coupon Amount, means the first Coupon Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the Coupon Business Day immediately preceding the applicable Coupon Record Date.

If a day that would otherwise be a Coupon Ex-Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended. In this case, the Coupon Amount corresponding to such Coupon Ex-Date will be included in the Cash Settlement Amount or Call Settlement Amount payable at maturity or call, respectively.

The “**Coupon Valuation Date**” means the 30th day of each March, June, September and December, of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date. The first Coupon Valuation Date will be September 30, 2020.

“**Coupon Business Day**” means any Index Business Day other than an Index Business Day on which banking institutions in New York are not authorized or obligated by law, regulation or executive order to be open.

“**record date**” means, (i) with respect to a distribution on an Index Constituent Security, the date on which a holder of the Index Constituent Security must be registered as a stockholder/unitholder of such Index Constituent Security in order to be entitled to receive such distribution, and (ii) with respect to any split or reverse split, the tenth Business Day after the announcement date.

“**ex-dividend date**” means, with respect to a distribution on an Index Constituent Security, the first Business Day on which transactions in such Index Constituent Security trade on the Primary Exchange without the right to receive such distribution.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is June 21, 2050, which will be the third Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called or redeemed, you will receive at maturity a cash payment equal to the Closing Indicative Value on the last day of the Final Measurement Period. We refer to this payment as the “**Cash Settlement Amount**”. If the amount so calculated is equal to or less than zero, the payment at maturity will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}$$

You may lose all or a substantial portion of your investment at maturity. The Securities are fully exposed to any decline in the level of the Index. The negative effect of the Daily Tracking Fee will reduce your final payment. If the level of the Index (as measured by the Index Closing Level at the end of the Final Measurement Period, as compared to the initial Index Closing Level or the Index level at the time you purchase the Securities, as applicable) does not increase by an amount sufficient to offset the negative effect of the Daily Tracking Fee (less any Coupon Amounts you may be entitled to receive), or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose all or a substantial portion of your investment at maturity. The Daily Tracking Fee also takes into account the performance of the Index, as measured by the Current Principal Amount.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “— UBS’s Call Right”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The “**Closing Indicative Value**” represents the dollar value per Security that an investor would receive on any day if it redeemed the Security on such day (excluding any Redemption Fee Amount). The Closing Indicative Value per Security will be calculated as follows:

- a) On the Initial Trade Date, \$25.00 per Security
- b) On any subsequent calendar day, prior to but excluding the first day of an applicable Measurement Period, an amount per Security equal to:
Current Principal Amount + Accrued Dividend
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
Current Principal Amount + Accrued Dividend + Measurement Period Cash Amount

The minimum value of the Closing Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The Current Principal Amount represents the notional investment in the Index Constituent Securities per Security at the close of trading on any calendar day.

The “**Current Principal Amount**” per Security, will be calculated as follows:

- a) On the Initial Trade Date, \$25.00 per Security;
- b) On any subsequent calendar day, prior to but excluding the first day of an applicable Measurement Period
(Current Principal Amount on the previous calendar day \times Index Factor)—Daily Tracking Fee
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period \times Index Factor \times Residual Factor)

On any calendar day during the Measurement Period that is not an Index Business Day, the Current Principal Amount will be equal to the Current Principal Amount on the previous calendar day.

The minimum value of the Current Principal Amount on any calendar day will be zero.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

The “**Index Factor**” on any Index Business Day prior to but excluding the first day of an applicable Measurement Period, will equal:

- (i) the Index Closing Level, on such Index Business Day, *divided by*, (ii) the Index Closing Level, on the immediately preceding Index Business Day.

From and including the first day of an applicable Measurement Period, the Index Factor will equal:

- (i) the Index Closing Level, on such calendar day, *divided by*, (ii) the Index Closing Level on the calendar day immediately preceding the first day of such Measurement Period.

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the immediately preceding Index Business Day. The Index Factor will therefore equal one (1) on any calendar day that is not an Index Business Day and is prior to the first Index Business Day of a five-day Measurement Period.

The “**Residual Factor**” will be calculated as follows:

- a) 1.0 on any calendar day, prior to but excluding the first day of an applicable Measurement Period
- b) From and including the first day of an applicable five-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such five-day Measurement Period, *divided by* (b) five.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas.

For example, on the first Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (4/5), on the second Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (3/5), on the third Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (2/5), on the fourth Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (1/5) and on the last Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal zero.

On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The “**Index Closing Level**” on any date of determination is the closing level of the Index as reported on the NYSE and Bloomberg; provided, however, that if the closing level of the Index as reported on the NYSE (or any successor) differs from the closing level of the Index as reported on Bloomberg (or any successor), then the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. 335.0383 is the initial Index Closing Level measured on June 19, 2020 (the Initial Trade Date), as determined by the Security Calculation Agent.

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level from the last Index Business Day prior to such calendar day.

“**Measurement Period**” means the Final Measurement Period or Call Measurement Period, as applicable.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, means the Closing Indicative Value per Security calculated on an intraday basis on any Index Business Day.

For the purposes of calculating the Current Indicative Value, the Index Factor (which is a component of the Current Principal Amount definition) will be determined using the Intraday Index Value.

Additionally, from and including the first day of an applicable Measurement Period, the Current Indicative Value will be calculated using (i) the Measurement Period Cash Amount from the immediately preceding calendar day, and (ii) the Residual Factor from the immediately preceding calendar day.

The minimum value of the Current Indicative Value (or intraday indicative value) on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (or intraday indicative value).

If the Securities undergo a split or reverse split, the Current Indicative Value (or intraday indicative value) will be adjusted accordingly.

The “**Daily Tracking Fee**” means, as of any date of determination, an amount per Security equal to 0.75% per annum, calculated as follows:

- a) On the Initial Trade Date, \$0.00 per Security;
- b) On any subsequent calendar day:
 $(0.75\% / 365) \times \text{Current Principal Amount on the immediately preceding calendar day} \times \text{Index Factor}$

The minimum value of the Daily Tracking Fee on any calendar day will be zero.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- a) \$0.00, on any calendar day prior to but excluding the first day of an applicable Measurement Period.
- b) On the first day of an applicable one-day Measurement Period:
 - a. At the close of trading on such Index Business Day, the (Current Principal Amount, on the immediately preceding calendar day, *times* Index Factor, on such Index Business Day), *minus* Daily Tracking Fee.
- c) From and including the first day of an applicable five-day Measurement Period:
 - a. At the close of trading on each Index Business Day, will equal:
(a) Measurement Period Cash Amount on the immediately preceding calendar day, *plus* (b) ((i) Current Principal Amount, on the calendar day immediately preceding the first day of such Measurement Period, *times* (ii) Index Factor, *divided by* (iii) five), *minus* (c) Daily Tracking Fee
 - b. On any calendar day that is not an Index Business Day, will equal the Measurement Period Cash Amount on the immediately preceding Index Business Day, *minus* Daily Tracking Fee
- d) On any calendar day after the last Index Business Day of an applicable Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

The minimum value of the Measurement Period Cash Amount on any calendar day will be zero.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business day during a five-day Measurement Period, approximately 20% of the Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash. After the close of trading on the final Index Business Day of an applicable five-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the five-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$250,000,000, the Calculation Date, subject to adjustments as described under “Specific Terms of the Securities — Market Disruption Event”;
- b) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$250,000,000, the five (5) Index Business Days from, and including, the Calculation Date, subject to adjustment as described under “Specific Terms of the Securities — Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

(i) the Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by AMNASO <Index> on Bloomberg L.P.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently S&P Dow Jones Indices.

The “**Calculation Date**” means June 10, 2050 unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Business Day**” means any day that is not a Saturday, a Sunday or a day on which banking institutions in The City of New York, generally, are authorized or obligated by law, regulation or executive order to close.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The Alerian Midstream Energy Index (Bloomberg: “AMNA Index”) is a broad-based composite of North American energy infrastructure companies who earn the majority of their cash flow from midstream activities involving energy commodities, such as gathering & processing, liquefaction, pipeline transportation, rail terminating, and storage of energy commodities. The Index is calculated by S&P Dow Jones Indices using a capped, float-adjusted, capitalization weighted methodology. We refer to the companies included in the Index as the “**Index Constituent Securities**”).

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon, New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on the same Index Business Day, provided that you request that we redeem a minimum of 50,000 Securities. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities. We reserve the right from time-to-time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume that you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume that you will be entitled to any such acceleration.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The First Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if a call notice has been issued, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

Closing Indicative Value as of the Redemption Valuation Date — Redemption Fee Amount.

We refer to this cash payment as the “**Redemption Amount**.”

If the amount calculated above is less than or equal to zero, the payment upon early redemption will be zero.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$(0.125\% \times \text{Closing Indicative Value of the Security as of such Redemption Valuation Date})$.

We reserve the right from time to time to reduce or waive the Redemption Fee Amount in our sole discretion on a case-by-case basis. You should not

assume you will be entitled to the benefit of any such waiver.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Daily Tracking Fee and the Redemption Fee Amount will reduce your Redemption Amount. If the level of the Index does not increase by an amount sufficient to offset the combined negative effect of the Daily Tracking Fee and the Redemption Fee Amount (less any Coupon Amounts you may be entitled to receive), or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose some or all of your investment upon early redemption.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS's Call Right. See — UBS's Call Right".

We discuss these matters in the accompanying prospectus under "Description of Debt Securities We May Offer — Redemption and Repayment."

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a "**Redemption Notice**" to UBS via email no later than 12:00 noon (New York City time) on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the "**Redemption Confirmation**," to us via e-mail in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 12:00 noon (New York City time), or your confirmation of redemption after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your notice will not be effective, you will not be able to redeem your Securities until another date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request.. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to reduce or waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS's Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen (18) calendar days' prior notice to the holders of the Securities (which notice may be provided via press release), such redemption to occur on any Business Day that we may specify through and including the Maturity Date. Upon early redemption in the event we exercise this right, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the "**Call Settlement Amount**."

If the amount so calculated is equal to or less than zero, the payment upon exercise of the UBS Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event.”

The “**Call Measurement Period**” means:

- a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders of its exercise of the UBS Call Right is less than \$250,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event.”; or
- b) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders of its exercise of the UBS Call Right is equal to or greater than \$250,000,000, the five (5) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under “ Specific Terms of the Securities — Market Disruption Event.”

For the purpose of determining the Call Measurement Period, the “**Market Value**” of the Securities as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right, will equal:

- (i) the Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by AMNASO <Index> on Bloomberg L.P.

The “**Call Valuation Date**” means the date disclosed as such by UBS in its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right.

In any notice to holders exercising the UBS Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Call Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment upon a call. The negative effect of the Daily Tracking Fee will reduce your final payment. If the level of the Index does not increase by an amount sufficient to offset the negative effect of the Daily Tracking Fee (less any Coupon Amounts you may be entitled to receive), or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose some or all of your investment upon UBS’s exercise of its call right.

Security Calculation Agent

UBS Securities LLC will act as the “Security Calculation Agent.” The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Value (or “intraday indicative value”), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Index Factor, the Residual Factor, the Index Closing Level, the Daily Tracking Fee, the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable and the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, and whether any day is a Business Day or Index Business Day and all such other matters as may be specified herein as matters to be determined by the Security Calculation Agent. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you and all other persons having an interest in the Security, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of this prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or call, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 noon (New York City time) on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Daily Tracking Fee, the Redemption Amount and Redemption Fee Amount, if any, per security, the Call Settlement Amount, if any, per security, the Current Principal Amount and the Cash Settlement Amount, if any, per security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid on the Stated Principal Amount of Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a five-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the five-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4, June 5 and June 6, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day, June 6th the fourth Index Business Day and the next Index Business Day after June 6th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a five-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date) or the Calculation Date (in the event that the Final Measurement Period is the Calculation Date), the Index Closing Level for such Redemption Valuation Date, Call Valuation Date or Calculation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date) or Calculation Date (in the event that the Final Measurement Period is the Calculation Date) occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date or Calculation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date or Calculation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- c) the Index is not published; or
- d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging”.

The following events will not be Market Disruption Events with respect to the Index:

- a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “**absence of trading**” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under “Description of Debt Securities We May Offer —Optional Tax Redemption” in the accompanying prospectus. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.” In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the three Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the third Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in the attached prospectus under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent, in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, plus
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc. ,or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor or Index Calculation Agent discontinue publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), and the Security Calculation Agent approves such index as a successor index, then the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination, Coupon Amounts and the amount payable at maturity, call or upon early redemption and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor or Index Calculation Agent discontinue publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in this prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, including the Coupon Amounts, Current Principal Amount, Current Indicative Value (or “intraday indicative value”), Closing Indicative Value, Index Factor, Residual Factor, Daily Tracking Fee, Accrued Dividend, Daily Dividend, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, upon early redemption by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties' ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after June 19, 2020 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- c) any event that occurs on or after June 19, 2020 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a substitute index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the Index Closing Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Daily Tracking Fee, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, and all related payment terms based on the Index Closing Level calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the Index), which, in turn, causes the Index Closing Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor index as if it had not been modified (*e.g.*, as if such split had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — There are potential conflicts of interest between you and the Security Calculation Agent" in this prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or call, or upon early redemption will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the accompanying prospectus.

Modified Business Day

As described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the attached prospectus, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Cash Settlement Amount at Maturity,” “— UBS’s Call Right” and “— Early Redemption at the Option of the Holders” above.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of this prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in the accompanying prospectus.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

18. ETRACS Alerian Midstream Energy High Dividend Index ETN due July 19, 2050

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

The Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described in the accompanying prospectus. This prospectus supplement summarizes specific financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” in the accompanying prospectus. The terms described here (i.e., in this prospectus supplement) supplement those described in the accompanying prospectus and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

Principal Amount: \$250,000,000

Issuer: UBS AG (London Branch)

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or call, or upon early redemption. Instead, at maturity, you will receive a cash payment the amount of which will vary depending on the performance and path of the Index calculated in accordance with the formula set forth below and will be reduced by the Daily Tracking Fee as of the last Index Business Day in the applicable Measurement Period or Redemption Valuation Date.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment on the Redemption Date equal to the Redemption Amount as described below under “— Early Redemption at the Option of the Holders.” If the amount so calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

If we elect to exercise our call right to redeem all of the Securities, subject to compliance with the procedures set forth below, for each Security you will receive a cash payment on the Call Settlement Date equal to the Call Settlement Amount, as described below under “— UBS’s Call Right.” If the amount so calculated is equal to or less than zero, the Call Settlement Amount will be zero and you will not receive a cash payment.

The Securities may pay a cash coupon during their term.

Coupon Payment

For each Security you hold on the applicable Coupon Record Date, on each Coupon Payment Date you will receive an amount in cash equal to the Coupon Amount, if any. The Coupon Amount will equal the sum of the cash distributions that a hypothetical holder of Index Constituent Securities would have been entitled to receive in respect of the Index Constituent Securities during the relevant period. The Coupon Amount may be equal to zero.

The “**Coupon Amount**” means (i) on any calendar day that is not a Coupon Ex-Date, an amount per Security equal to zero; and (ii) on any calendar day that is a Coupon Ex-Date, an amount per Security equal to the Accrued Dividend on the Coupon Valuation Date immediately preceding such Coupon Ex-Date. The minimum value of the Coupon Amount will be zero.

The following graphic illustrates the formula to determine the Coupon Amount on a Coupon Ex-Date, which has been simplified for ease of presentation:

$$\text{Coupon Amount} = \text{Accrued Dividend, on the immediately preceding Coupon Valuation Date}$$

If the Securities undergo a split or reverse split, the Coupon Amount will be adjusted accordingly.

Notwithstanding the foregoing, with respect to cash distributions or dividends on an Index Constituent Security which is scheduled to be paid prior to the applicable Coupon Ex-Date, if, and only if, the issuer of such Index Constituent Security fails to pay the dividend or cash distribution to holders of such Index Constituent Security by the scheduled payment date for such dividend or cash distribution, such dividend or distribution will be assumed to be zero for the purposes of calculating the applicable Coupon Amount. Any such delayed dividend or cash distribution payments from the issuer of an Index Constituent Security will be attributed back to the Accrued Dividend and included in the next Coupon Amount.

The “**Accrued Dividend**” means, as of any date of determination, an amount per Security equal to: (i) on the Initial Trade Date, \$0.00 per Security; and (ii) on any subsequent calendar day (a) the Accrued Dividend as of the immediately preceding calendar day, *plus* (b) the Daily Dividend on such calendar day, *minus* (c) the Coupon Amount on such calendar day.

If the Securities undergo a split or reverse split, the Accrued Dividend will be adjusted accordingly.

The “**Daily Dividend**” means on any calendar day, an amount per Security equal to:

(a)(i) the Index Dividend Point, *times* (ii) the Current Principal Amount on the immediately preceding calendar day, *divided by* (b) the Index Closing Level on the immediately preceding calendar day.

The Daily Dividend will be rounded to four decimal places.

The Daily Dividend is intended to approximate the amount of distributions in US Dollars that a holder of the Securities would receive if such holder held an unleveraged investment in the Index Constituent Securities directly.

The “**Index Dividend Point**” on any calendar day, means an amount per Security equal to (a) (the *sum of the products of* (i) the cash value of distributions, that a hypothetical holder of one share of an Index Constituent Security, whose “ex-dividend date” occurs on such calendar day, would have been entitled to receive (adjustments relating to foreign exchange rate fixings or dividend withholding taxes, described below), and (ii) the number of index shares of that Index Constituent Security included in the Index as of such date), *divided by* (b) the Divisor as of such date.

In respect of distributions on any Canadian Index Constituent Securities, on their respective “ex-dividend date”, the cash value of distributions will be deemed to be converted from Canadian Dollars to U.S. Dollars (i) prior to August 3, 2020, at the WM / Reuters USD/CAD foreign exchange rate as of 4:00 p.m. London Time on such ex-dividend date, and (ii) on and after August 3, 2020, at the WM / Reuters USD/CAD foreign exchange rate as of 4:00 p.m. Eastern Time on such ex-dividend date (the “**WM / Reuters FX Rate**”), provided, however, that if, for purpose of determining the Index Closing Level, the Index Sponsor converts the values of the Canadian Index Constituent Securities from Canadian Dollars to U.S. Dollars using a different USD/CAD foreign exchange rate or using the WM/Reuters USD/CAD exchange rate as of a different time, then such foreign exchange rate selected by the Index Sponsor for purposes of determining the Index Closing Level (and the time selected by the Index Sponsor for such exchange) shall also apply for purposes of determining the cash value of distributions on the Canadian Index Constituent Securities.

The WM/Reuters FX Rate mid-market fixings are calculated by the WM Company based on Reuters data and appear on the Reuters pages WMRA.

Notwithstanding the foregoing, if the Security Calculation Agent determines on the relevant determination date that:

- (a) the WM/ Reuters FX Rate, or the applicable replacement foreign exchange rate determined by the Index Sponsor, has been discontinued (or otherwise ceases to be published), materially disrupted or is no longer representative of the underlying market or economic reality; or
- (b) 4:00 p.m. London Time (or, on and after August 3, 2020, 4:00 p.m. Eastern Time) (or such other time selected by the Index Sponsor for purposes of converting the values of the Canadian Index Constituent Securities to determine the Index Closing Level) is no longer the appropriate time for fixing the applicable exchange rate for any of the reasons set forth in (a) above,

then the Security Calculation Agent will, in the case of (a) use a substitute or successor provider of foreign exchange rates that it has determined in its sole discretion is most comparable to the prior exchange rate, provided that if the Security Calculation Agent determines that there is an industry-accepted successor provider of foreign exchange rates, then the Security Calculation Agent shall use such successor provider of foreign exchange rates; or in the case of (b) use such other time for fixing of the foreign exchange rate as it has determined in its sole discretion is appropriate based on the WM / Reuters FX Rate, or such substitute or successor provider of foreign exchange rates, as it has determined in its sole discretion is most comparable to the prior exchange rate, as set forth above.

As of the date of this prospectus supplement, the applicable dividend withholding tax would reduce the cash value of distributions in respect of any Canadian Index Constituent Security by 15% for purposes of calculating the Index Dividend Point. The 15% rate is subject to adjustment if there is a change under Canadian law or the tax treaty between the United States and Canada or to the Canadian dividend withholding tax rate applicable to a U.S. holder of a Canadian Index Constituent Security that is eligible for the benefits of the tax treaty between the United States and Canada.

In the event that an adjustment relating to foreign exchange rate fixings (other than the change specified above, effective as of August 3, 2020) or dividend withholding taxes is made, we will issue a press release announcing such adjustment and the effective date for such adjustment.

The Index Dividend Point, on any calendar day, represents the total cash value of distributions that a hypothetical holder of the Index Constituent Securities, in proportion to the weights of the Index Constituent Securities, would have been entitled to receive with respect to any Index Constituent Security for those cash distributions whose “ex-dividend date” occurs on such calendar day.

The Index Dividend Point may not be publicly disseminated by the Index Calculation Agent. The data used to calculate the Index Dividend Point is the property of the Index Calculation Agent and investors may be required to pay a fee and meet any other requirements of the Index Calculation Agent in order to access such information. See “Risk Factors – The value of the Index Dividend Point may not be publicly disseminated or otherwise freely accessible to investors”.

The “**Divisor**” means, as of any date of determination, the divisor used by the Index Calculation Agent to calculate the Index Closing Level.

The “**Coupon Payment Date**” means the 15th Index Business Day following each Coupon Valuation Date. The first Coupon Payment Date will be October 21, 2020, subject to adjustment. If such day is not a Coupon Business Day, the Coupon Payment Date shall be the following Coupon Business Day.

If the final Coupon Ex-Date occurs prior to the Maturity Date, but the final Coupon Payment Date otherwise occurs after the Maturity Date, in such case, the final Coupon Payment Date will be the Maturity Date, subject to adjustment.

The “**Coupon Record Date**” means the ninth Index Business Day following each Coupon Valuation Date. If such day is not a Coupon Business day, the Coupon Record Date shall be the immediately preceding Coupon Business Day.

The “**Coupon Ex-Date**,” with respect to a Coupon Amount, means the first Coupon Business Day on which the Securities trade without the right to receive such Coupon Amount. Under current NYSE Arca practice, the Coupon Ex-Date will generally be the Coupon Business Day immediately preceding the applicable Coupon Record Date.

If a day that would otherwise be a Coupon Ex-Date occurs on or after the first day of an applicable Measurement Period, such day will not be a valid Coupon Ex-Date and all further Coupon Ex-Dates will be suspended. In this case, the Coupon Amount corresponding to such Coupon Ex-Date will be included in the Cash Settlement Amount or Call Settlement Amount payable at maturity or call, respectively.

The “**Coupon Valuation Date**” means the 30th day of each March, June, September and December, of each calendar year during the term of the Securities or if such date is not an Index Business Day, then the first Index Business Day following such date, provided that the final Coupon Valuation Date will be the Calculation Date. The first Coupon Valuation Date will be September 30, 2020.

“**Coupon Business Day**” means any Index Business Day other than an Index Business Day on which banking institutions in New York are not authorized or obligated by law, regulation or executive order to be open.

“**record date**” means, (i) with respect to a distribution on an Index Constituent Security, the date on which a holder of the Index Constituent Security must be registered as a stockholder/unitholder of such Index Constituent Security in order to be entitled to receive such distribution, and (ii) with respect to any split or reverse split, the tenth Business Day after the announcement date.

“**ex-dividend date**” means, with respect to a distribution on an Index Constituent Security, the first Business Day on which transactions in such Index Constituent Security trade on the Primary Exchange without the right to receive such distribution.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is July 19, 2050, which will be the third Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called or redeemed, you will receive at maturity a cash payment equal to the Closing Indicative Value on the last day of the Final Measurement Period. We refer to this payment as the “**Cash Settlement Amount**”. If the amount so calculated is equal to or less than zero, the payment at maturity will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}}$$

You may lose all or a substantial portion of your investment at maturity. The Securities are fully exposed to any decline in the level of the Index. The negative effect of the Daily Tracking Fee will reduce your final payment. If the level of the Index (as measured by the Index Closing Level at the end of the Final Measurement Period, as compared to the initial Index Closing Level or the Index level at the time you purchase the Securities, as applicable) does not increase by an amount sufficient to offset the negative effect of the Daily Tracking Fee (less any Coupon Amounts you may be entitled to receive), or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose all or a substantial portion of your investment at maturity. The Daily Tracking Fee also takes into account the performance of the Index, as measured by the Current Principal Amount.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “—UBS’s Call Right”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The “**Closing Indicative Value**” represents the dollar value per Security that an investor would receive on any day if it redeemed the Security on such day (excluding any Redemption Fee Amount). The Closing Indicative Value per Security will be calculated as follows:

a) On the Initial Trade Date, \$25.00 per Security

- b) On any subsequent calendar day, prior to but excluding the first day of an applicable Measurement Period, an amount per Security equal to:
Current Principal Amount + Accrued Dividend
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
Current Principal Amount + Accrued Dividend + Measurement Period Cash Amount

The minimum value of the Closing Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The Current Principal Amount represents the notional investment in the Index Constituent Securities per Security at the close of trading on any calendar day.

The “**Current Principal Amount**” per Security, will be calculated as follows:

- a) On the Initial Trade Date, \$25.00 per Security;
- b) On any subsequent calendar day, prior to but excluding the first day of an applicable Measurement Period
(Current Principal Amount on the previous calendar day \times Index Factor) — Daily Tracking Fee
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to: (Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period \times Index Factor \times Residual Factor)

On any calendar day during the Measurement Period that is not an Index Business Day, the Current Principal Amount will be equal to the Current Principal Amount on the previous calendar day.

The minimum value of the Current Principal Amount on any calendar day will be zero.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

The “**Index Factor**” on any Index Business Day prior to but excluding the first day of an applicable Measurement Period, will equal:

- (i) the Index Closing Level, on such Index Business Day, *divided by*, (ii) the Index Closing Level, on the immediately preceding Index Business Day.

From and including the first day of an applicable Measurement Period, the Index Factor will equal:

- (i) the Index Closing Level, on such calendar day, *divided by*, (ii) the Index Closing Level on the calendar day immediately preceding the first day of such Measurement Period.

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the immediately preceding Index Business Day. The Index Factor will therefore equal one (1) on any calendar day that is not an Index Business Day and is prior to the first Index Business Day of a five-day Measurement Period.

The “**Residual Factor**” will be calculated as follows:

- a) 1.0 on any calendar day, prior to but excluding the first day of an applicable Measurement Period
- b) From and including the first day of an applicable five-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such five-day Measurement Period, *divided by* (b) five.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas.

For example, on the first Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (4/5), on the second Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (3/5), on the third Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (2/5), on the fourth Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (1/5) and on the last Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal zero.

On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The “**Index Closing Level**” on any date of determination is the closing level of the Index as reported on the NYSE and Bloomberg; provided, however, that if the closing level of the Index as reported on the NYSE (or any successor) differs from the closing level of the Index as reported on Bloomberg (or any successor), then the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. 41.8766 is the initial Index Closing Level measured on July 15, 2020 (the Initial Trade Date), as determined by the Security Calculation Agent.

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level from the last Index Business Day prior to such calendar day.

“**Measurement Period**” means the Final Measurement Period or Call Measurement Period, as applicable.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, means the Closing Indicative Value per Security calculated on an intraday basis on any Index Business Day.

For the purposes of calculating the Current Indicative Value, the Index Factor (which is a component of the Current Principal Amount definition) will be determined using the Intraday Index Value.

Additionally, from and including the first day of an applicable Measurement Period, the Current Indicative Value will be calculated using (i) the Measurement Period Cash Amount from the immediately preceding calendar day, and (ii) the Residual Factor from the immediately preceding calendar day.

The minimum value of the Current Indicative Value (or intraday indicative value) on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (or intraday indicative value).

If the Securities undergo a split or reverse split, the Current Indicative Value (or intraday indicative value) will be adjusted accordingly.

The “**Daily Tracking Fee**” means, as of any date of determination, an amount per Security equal to 0.75% per annum, calculated as follows:

- a) On the Initial Trade Date, \$0.00 per Security;
- b) On any subsequent calendar day:
 $(0.75\% / 365) \times \text{Current Principal Amount on the immediately preceding calendar day} \times \text{Index Factor}$

The minimum value of the Daily Tracking Fee on any calendar day will be zero.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly. The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- a) \$0.00, on any calendar day prior to but excluding the first day of an applicable Measurement Period
- b) On the first day of an applicable one-day Measurement Period:
 - a. At the close of trading on such Index Business Day, the (Current Principal Amount, on the immediately preceding calendar day, *times* Index Factor, on such Index Business Day), *minus* Daily Tracking Fee.
- c) From and including the first day of an applicable five-day Measurement Period:
 - a. At the close of trading on each Index Business Day, will equal:
 - i. Measurement Period Cash Amount on the immediately preceding calendar day, *plus* (b) ((i) Current Principal Amount, on the calendar day immediately preceding the first day of such Measurement Period, *times* (ii) Index Factor, *divided by* (iii) five), *minus* (c) Daily Tracking Fee
 - ii. On any calendar day that is not an Index Business Day, will equal the Measurement Period Cash Amount on the immediately preceding Index Business Day, *minus* Daily Tracking Fee
- d) On any calendar day after the last Index Business Day of an applicable Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

The minimum value of the Measurement Period Cash Amount on any calendar day will be zero.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business day during a five-day Measurement Period, approximately 20% of the Current Principal Amount, on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash. After the close of trading on the final Index Business Day of an applicable five-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the five-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$150,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- b) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$150,000,000, the five (5) Index Business Days from, and including, the Calculation Date, subject to adjustment as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by AMNDSO <Index> on Bloomberg L.P.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently S&P DJI Netherlands B.V.

The “**Calculation Date**” means July 8, 2050 unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Business Day**” means any day that is not a Saturday, a Sunday or a day on which banking institutions in The City of New York, generally, are authorized or obligated by law, regulation or executive order to close.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The Alerian Midstream Energy Dividend Index (Bloomberg: “AEDW”) is a fundamentally-weighted index based on the liquid, dividend-paying portion of the North American energy infrastructure market. The Index measures the performance of companies domiciled in the U.S. or Canada, listed on major U.S. or Canadian stock exchanges, that pay regular cash dividends and meet specific liquidity requirements, as described elsewhere in the prospectus supplement. The Index is calculated by S&P DJI Netherlands B.V. using a modified market capitalization weighted methodology. We refer to the companies included in the Index as the “**Index Constituent Securities**”).

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon, New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on the same Index Business Day, provided that you request that we redeem a minimum of 50,000 Securities. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities. We reserve the right from time-to-time to waive this minimum redemption amount in our sole discretion on a case- by-case basis. You should not assume that you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume that you will be entitled to any such acceleration.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The First Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if a call notice has been issued, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call

Settlement Date, as applicable.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

Closing Indicative Value as of the Redemption Valuation Date – Redemption Fee Amount.

We refer to this cash payment as the “**Redemption Amount.**”

If the amount calculated above is less than or equal to zero, the payment upon early redemption will be zero.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$(0.125\% \times \text{Closing Indicative Value of the Security as of such Redemption Valuation Date}).$

We reserve the right from time to time to reduce or waive the Redemption Fee Amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Daily Tracking Fee and the Redemption Fee Amount will reduce your Redemption Amount. If the level of the Index does not increase by an amount sufficient to offset the combined negative effect of the Daily Tracking Fee and the Redemption Fee Amount (less any Coupon Amounts you may be entitled to receive), or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose some or all of your investment upon early redemption.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right. See “— UBS’s Call Right”.

We discuss these matters in the accompanying prospectus under “Description of Debt Securities We May Offer — Redemption and Repayment.”

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon (New York City time) on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation,**” to us via e-mail in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 12:00 noon (New York City time), or your confirmation of redemption after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your notice will not be effective, you will not be able to redeem your Securities until another date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC

custodian or your brokerage firm.

We reserve the right from time to time to reduce or waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS's Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen (18) calendar days' prior notice to the holders of the Securities (which notice may be provided via press release), such redemption to occur on any Business Day that we may specify through and including the Maturity Date. Upon early redemption in the event we exercise this right, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the "**Call Settlement Amount**."

If the amount so calculated is equal to or less than zero, the payment upon exercise of the UBS Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Business Day following the last Index Business Day in the Call Measurement Period (the "**Call Settlement Date**"). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under "— Market Disruption Event."

The "**Call Measurement Period**" means:

- a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders of its exercise of the UBS Call Right is less than \$150,000,000, the Call Valuation Date, subject to adjustments as described under "— Market Disruption Event."; or
- b) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders of its exercise of the UBS Call Right is equal to or greater than \$150,000,000, the five (5) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under "— Market Disruption Event."

For the purpose of determining the Call Measurement Period, the "**Market Value**" of the Securities as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right, will equal:

- (i) the Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by AMNDSO <Index> on Bloomberg L.P.

The "**Call Valuation Date**" means the date disclosed as such by UBS in its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right.

In any notice to holders exercising the UBS Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Call Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment upon a call. The negative effect of the Daily Tracking Fee will reduce your final payment. If the level of the Index does not increase by an amount sufficient to offset the negative effect of the Daily Tracking Fee (less any Coupon Amounts you may be entitled to receive), or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose some or all of your investment upon UBS's exercise of its call right.

Security Calculation Agent

UBS Securities LLC will act as the “Security Calculation Agent.” The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Value (or “intraday indicative value”), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Index Factor, the Residual Factor, the Index Closing Level, the Daily Tracking Fee, the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Coupon Ex-Dates, the Coupon Record Dates, the Redemption Amount, if any, that we will pay you upon redemption, if applicable and the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, and whether any day is a Business Day or Index Business Day and all such other matters as may be specified herein as matters to be determined by the Security Calculation Agent. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you and all other persons having an interest in the Security, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of this prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or call, or upon early redemption, or on a Coupon Payment Date on or prior to 12:00 noon (New York City time) on the Business Day immediately preceding the Maturity Date, any Redemption Date, any Call Settlement Date or any Coupon Payment Date, as applicable.

All dollar amounts related to determination of the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Daily Tracking Fee, the Redemption Amount and Redemption Fee Amount, if any, per security, the Call Settlement Amount, if any, per security, the Current Principal Amount and the Cash Settlement Amount, if any, per security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid on the Stated Principal Amount of Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a five-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the five-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4, June 5 and June 6, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day, June 6th the fourth Index Business Day and the next Index Business Day after June 6th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a five-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date) or the Calculation Date (in the event that the Final Measurement Period is the Calculation Date), the Index Closing Level for such Redemption Valuation Date, Call Valuation Date or Calculation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date) or Calculation Date (in the event that the Final Measurement Period is the Calculation Date) occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date or Calculation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date or Calculation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- c) the Index is not published; or
- d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging”.

The following events will not be Market Disruption Events with respect to the Index:

- a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “**absence of trading**” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under “Description of Debt Securities We May Offer — Optional Tax Redemption” in the accompanying prospectus. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.” In addition to the default amount described below, we will also pay the Coupon Amount per Security, if any, with respect to the final Coupon Payment Date, as described above under “— Coupon Payment,” calculated as if the date of acceleration was the last Index Business Day in the Final Measurement Period and the three Index Business Days immediately preceding the date of acceleration were the corresponding Index Business Days in the accelerated Final Measurement Period, with the third Index Business Day immediately preceding the date of acceleration being the accelerated Calculation Date and the accelerated final Coupon Valuation Date, and the Index Business Day immediately preceding the date of acceleration being the relevant final Coupon Valuation Date.

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in the attached prospectus under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent, in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, plus
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc. ,or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of, Adjustments to or Benchmark Event Affecting the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor or Index Calculation Agent discontinue publication of, or otherwise fails to publish, the Index, (ii) a Benchmark Event (as described below) under the EU Benchmarks Regulation (as described under "Risk Factors – The Securities are linked to the Index and are subject to certain regulatory risks") occurs with respect to the Index or the Index Sponsor, (iii) our license agreement with the Index Sponsor terminates or (iv) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an EU Benchmarks Regulation-compliant index licensed to UBS that the Security Calculation Agent both approves of and determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a "**successor index**"), then the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination, Coupon Amounts and the amount payable, if any, at maturity, call or upon early redemption and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Security Calculation Agent determines that the conditions described above are met on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

For purposes of the above, a "**Benchmark Event**" will occur if the applicable registration for the Index or Index Sponsor is not effective or has been suspended or withdrawn by the relevant authority with the effect that the use of the Index or the Index Sponsor is not permitted under the EU

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in this prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, including the Coupon Amounts, Current Principal Amount, Current Indicative Value (or “intraday indicative value”), Closing Indicative Value, Index Factor, Residual Factor, Daily Tracking Fee, Accrued Dividend, Daily Dividend, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, upon early redemption by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after July 15, 2020 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- c) any event that occurs on or after July 15, 2020 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a substitute index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the Index Closing Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Coupon Amount, the Accrued Dividend, the Daily Dividend, if any, the Daily Tracking Fee, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, and all related payment terms based on the Index Closing Level calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the Index), which, in turn, causes the Index Closing Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor index as if it had not been modified (*e.g.*, as if such split had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — There are potential conflicts of interest between you and the Security Calculation Agent" in this prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or call, or upon early redemption will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in "Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities" in the accompanying prospectus.

Modified Business Day

As described in "Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities" in the attached prospectus, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under "— Cash Settlement Amount at Maturity," "— UBS's Call Right" and "— Early Redemption at the Option of the Holders" above.

Reissuances or Reopened Issues

We may, at our sole discretion, "reopen" or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of this prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to "Description of Debt Securities We May Offer — Amounts That We May Issue" in the accompanying prospectus.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC's settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

19. ETRACS Alerian Midstream Energy Total Return Index ETN due October 20, 2050

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

The Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described in the accompanying prospectus. This prospectus supplement summarizes specific financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” in the accompanying prospectus. The terms described here (i.e., in this prospectus supplement) supplement those described in the accompanying prospectus and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or call, or upon early redemption. Instead, at maturity, you will receive a cash payment the amount of which will vary depending on the performance and path of the Index calculated in accordance with the formula set forth below and will be reduced by the Daily Tracking Fee as of the last Index Business Day in the applicable Measurement Period or Redemption Valuation Date.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment on the Redemption Date equal to the Redemption Amount as described below under “— Early Redemption at the Option of the Holders.” If the amount so calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

If we elect to exercise our call right to redeem all of the Securities, subject to compliance with the procedures set forth below, for each Security you will receive a cash payment on the Call Settlement Date equal to the Call Settlement Amount, as described below under “— UBS’s Call Right.” If the amount so calculated is equal to or less than zero, the Call Settlement Amount will be zero and you will not receive a cash payment.

The Securities will not pay any cash coupon during their term.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is October 20, 2050, which will be the third Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called or redeemed, you will receive at maturity a cash payment equal to the Closing Indicative Value on the last day of the Final Measurement Period. We refer to this payment as the “**Cash Settlement Amount**”. If the amount so calculated is equal to or less than zero, the payment at maturity will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}}$$

You may lose all or a substantial portion of your investment at maturity. The Securities are fully exposed to any decline in the level of the Index. The negative effect of the Daily Tracking Fee will reduce your final payment. If the level of the Index (as measured by the Index Closing Level at the end of the Final Measurement Period, as compared to the initial Index Closing Level or the Index level at the time you purchase the Securities, as applicable) does not increase by an amount sufficient to offset the negative effect of the Daily Tracking Fee, or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose all or a substantial portion of your investment at maturity. The Daily Tracking Fee also takes into account the performance of the Index, as measured by the Closing Indicative Value.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “—UBS’s Call Right”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be

adjusted accordingly.

The “**Closing Indicative Value**” represents the dollar value per Security that an investor would receive on any day if it redeemed the Security on such day (excluding any Redemption Fee Amount). The Closing Indicative Value per Security will be calculated as follows:

- a) On the Initial Trade Date, \$25.00 per Security
- b) On any subsequent calendar day, prior to but excluding the first day of an applicable Measurement Period, an amount per Security equal to:
(Closing Indicative Value on the previous calendar day * Index Factor)—Daily Tracking Fee
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Closing Indicative Value on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) + Measurement Period Cash Amount

The minimum value of the Closing Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Index Factor**” on any Index Business Day prior to but excluding the first day of an applicable Measurement Period, will equal:

- (i) the Index Closing Level, on such Index Business Day, *divided by*, (ii) the Index Closing Level, on the immediately preceding Index Business Day.

From and including the first day of an applicable Measurement Period, the Index Factor will equal:

- (i) the Index Closing Level, on such calendar day, *divided by*, (ii) the Index Closing Level on the calendar day immediately preceding the first day of such Measurement Period.

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the immediately preceding Index Business Day. The Index Factor will therefore equal one (1) on any calendar day that is not an Index Business Day and is prior to the first Index Business Day of a five-day Measurement Period.

The “**Residual Factor**” will be calculated as follows:

- a) 1.0 on any calendar day, prior to but excluding the first day of an applicable Measurement Period
- b) From and including the first day of an applicable five-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such five-day Measurement Period, *divided by* (b) five.

The Residual Factor is intended to approximate the percentage of the Closing Indicative Value that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas.

For example, on the first Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (4/5), on the second Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (3/5), on the third Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (2/5), on the fourth Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (1/5) and on the last Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal zero.

On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The “**Index Closing Level**” on any date of determination is the closing level of the Index as reported on the NYSE and Bloomberg; provided, however, that if the closing level of the Index as reported on the NYSE (or any successor) differs from the closing level of the Index as reported on Bloomberg (or any successor), then the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. 358.2653 is the initial Index Closing Level measured on October 20, 2020 (the Initial Trade Date), as determined by the Security Calculation Agent.

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level from the last Index Business Day prior to such calendar day.

“**Measurement Period**” means the Final Measurement Period or Call Measurement Period, as applicable.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, means the Closing Indicative Value per Security calculated on an intraday basis on any Index Business Day.

For the purposes of calculating the Current Indicative Value, the Index Factor will be determined using the Intraday Index Value. Additionally, from and

including the first day of an applicable Measurement Period, the Current Indicative Value will be calculated using (i) the Measurement Period Cash Amount from the immediately preceding calendar day, and (ii) the Residual Factor from the immediately preceding calendar day.

The minimum value of the Current Indicative Value (or intraday indicative value) on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (or intraday indicative value).

If the Securities undergo a split or reverse split, the Current Indicative Value (or intraday indicative value) will be adjusted accordingly.

The “**Daily Tracking Fee**” means, as of any date of determination, an amount per Security equal to 0.75% per annum, calculated as follows:

- a) On the Initial Trade Date, \$0.00 per Security;
- b) On any subsequent calendar day, prior to but excluding the first day of an applicable Measurement Period, an amount per Security equal to:
 $(0.75\% / 365) \times \text{Closing Indicative Value on the immediately preceding calendar day} \times \text{Index Factor}$
- c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
 $(0.75\% / 365) \times \text{Closing Indicative Value on the calendar day immediately preceding the first day of the Measurement Period} \times \text{Index Factor} \times \text{Residual Factor on the immediately preceding calendar day}$

The minimum value of the Daily Tracking Fee on any calendar day will be zero.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly. The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- a) \$0.00, on any calendar day prior to but excluding the first day of an applicable Measurement Period
- b) On the first day of an applicable one-day Measurement Period:
 - a. At the close of trading on such Index Business Day, the (Closing Indicative Value, on the immediately preceding calendar day, *times* Index Factor, on such Index Business Day), *minus* Daily Tracking Fee.
- c) From and including the first day of an applicable five-day Measurement Period:
 - a. At the close of trading on each Index Business Day, will equal:
 - i. Measurement Period Cash Amount on the immediately preceding calendar day, *plus* (b) (i) Closing Indicative Value, on the calendar day immediately preceding the first day of such Measurement Period, *times* (ii) Index Factor, *divided by* (iii) five), *minus* (c) Daily Tracking Fee
 - ii. On any calendar day that is not an Index Business Day, will equal the Measurement Period Cash Amount on the immediately preceding Index Business Day, *minus* Daily Tracking Fee
- d) On any calendar day after the last Index Business Day of an applicable Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

The minimum value of the Measurement Period Cash Amount on any calendar day will be zero.

The Measurement Period Cash Amount represents the portion of the Closing Indicative Value that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business day during a five-day Measurement Period, approximately 20% of the Closing Indicative Value, on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash. After the close of trading on the final Index Business Day of an applicable five-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Closing Indicative Value that was deemed converted to cash across the five-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Closing Indicative Value will be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly. The “**Final Measurement Period**” means:

- a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$250,000,000, the Calculation Date, subject to adjustments as described under “Specific Terms of the Securities—Market Disruption Event”;

- b) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$250,000,000, the five (5) Index Business Days from, and including, the Calculation Date, subject to adjustment as described under “Specific Terms of the Securities— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by AMTRSO <Index> on Bloomberg L.P.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently S&P Dow Jones Indices.

The “**Calculation Date**” means October 11, 2050 unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustments.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Business Day**” means any day that is not a Saturday, a Sunday or a day on which banking institutions in The City of New York, generally, are authorized or obligated by law, regulation or executive order to close.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The Alerian Midstream Energy Adjusted Net Total Return Index (Bloomberg: “AMNTR Index”) is the adjusted net total return version of the Alerian Midstream Energy Index (Bloomberg: “AMNA Index”). The Index is a broad-based composite of North American energy infrastructure companies who earn the majority of their cash flow from midstream activities involving energy commodities, such as gathering & processing, liquefaction, pipeline transportation, rail terminaling, and storage of energy commodities. The Index is calculated by S&P Dow Jones Indices using a capped, float adjusted, capitalization weighted methodology. We refer to the companies included in the Index as the “Index Constituent Securities”. **The Index is an adjusted net total return index and the Index level reflects the notional reinvestment of the cash distributions from its constituent securities, subject to dividend withholding taxes on distributions made by applicable Canadian Index Constituent Securities. No dividend withholding taxes are applied to distributions made by applicable U.S. Index Constituent Securities.**

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon, New York City time, and a confirmation of redemption by no later than 5:00 p.m., New York City time, on the same Index Business Day, provided that you request that we redeem a minimum of 50,000 Securities. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities. We reserve the right from time-to-time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume that you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume that you will be entitled to any such acceleration.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The First Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if a call notice has been issued, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event.”

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

Closing Indicative Value as of the Redemption Valuation Date – Redemption Fee Amount.

We refer to this cash payment as the “**Redemption Amount.**”

If the amount calculated above is less than or equal to zero, the payment upon early redemption will be zero.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$(0.125\% \times \text{Closing Indicative Value of the Security as of such Redemption Valuation Date}).$

We reserve the right from time to time to reduce or waive the Redemption Fee Amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Daily Tracking Fee and the Redemption Fee Amount will reduce your Redemption Amount. If the level of the Index does not increase by an amount sufficient to offset the combined negative effect of the Daily Tracking Fee and the Redemption Fee Amount, or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose some or all of your investment upon early redemption.

The Securities may be called by UBS prior to the Maturity Date pursuant to UBS’s Call Right. See – UBS’s Call Right”.

We discuss these matters in the accompanying prospectus under “Description of Debt Securities We May Offer — Redemption and Repayment.”

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon (New York City time) on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation,**” to us via e-mail in the specified form by 5:00 p.m. (New York City time) on the same day. We or our affiliate must acknowledge receipt in order for your confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Valuation Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon (New York City time) on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your notice of redemption after 12:00 noon (New York City time), or your confirmation of redemption after 5:00 p.m. (New York City time), on the Business Day prior to the applicable Redemption Valuation Date, your notice will not be effective, you will not be able to redeem your Securities until another date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to reduce or waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which the notice of redemption is received by UBS rather than the following Index Business Day. You should not assume

you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS's Call Right

We have the right to redeem all, but not less than all, of the Securities upon not less than eighteen

(18) calendar days' prior notice to the holders of the Securities (which notice may be provided via press release), such redemption to occur on any Business Day that we may specify through and including the Maturity Date. Upon early redemption in the event we exercise this right, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the "**Call Settlement Amount**."

If the amount so calculated is equal to or less than zero, the payment upon exercise of the UBS Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Business Day following the last Index Business Day in the Call Measurement Period (the "**Call Settlement Date**"). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under "— Market Disruption Event."

The "**Call Measurement Period**" means:

- a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders of its exercise of the UBS Call Right is less than \$250,000,000, the Call Valuation Date, subject to adjustments as described under "— Market Disruption Event."; or
- b) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders of its exercise of the UBS Call Right is equal to or greater than \$250,000,000, the five (5) Index Business Days from and including the Call Valuation Date, subject to adjustments as described under " Specific Terms of the Securities—Market Disruption Event."

For the purpose of determining the Call Measurement Period, the "**Market Value**" of the Securities as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right, will equal:

- (i) the Closing Indicative Value as of such Index Business Day, *times* (ii) the number of Securities outstanding as reported by AMTRSO <Index> on Bloomberg L.P.

The "**Call Valuation Date**" means the date disclosed as such by UBS in its notice to holders (which may be provided via press release) of its exercise of the UBS Call Right.

In any notice to holders exercising the UBS Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Call Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment upon a call. The negative effect of the Daily Tracking Fee will reduce your final payment. If the level of the Index does not increase by an amount sufficient to offset the negative effect of the Daily Tracking Fee, or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose some or all of your investment upon UBS's exercise of its call right.

Security Calculation Agent

UBS Securities LLC will act as the "Security Calculation Agent." The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, Current Indicative Value (or "intraday indicative value"), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Index Factor, the Residual Factor, the Index Closing Level, the Daily Tracking Fee, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, if applicable and the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, and whether any day is a Business Day or Index Business Day and all such other matters as may be specified herein as matters to be determined by the Security Calculation Agent. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you and all other persons having an interest in the Security, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or call, or upon early redemption, on or prior to 12:00 noon (New York City time) on the Business Day immediately preceding the Maturity Date, any Redemption Date, or any Call Settlement Date, as applicable.

All dollar amounts related to determination of the Daily Tracking Fee, the Redemption Amount and Redemption Fee Amount, if any, per security, the Call Settlement Amount, if any, per security, and the Cash Settlement Amount, if any, per security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid on the Stated Principal Amount of Securities per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a five-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the five-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4, June 5 and June 6, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day, June 6th the fourth Index Business Day and the next Index Business Day after June 6th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a five-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date) or the Calculation Date (in the event that the Final Measurement Period is the Calculation Date), the Index Closing Level for such Redemption Valuation Date, Call Valuation Date or Calculation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date) or Calculation Date (in the event that the Final Measurement Period is the Calculation Date) occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date or Calculation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date or Calculation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- c) the Index is not published; or
- d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging”.

The following events will not be Market Disruption Events with respect to the Index:

- a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; or
- b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “**absence of trading**” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Redemption Price Upon Optional Tax Redemption

We have the right to redeem the Securities in the circumstances described under “Description of Debt Securities We May Offer — Optional Tax Redemption” in the accompanying prospectus. If we exercise this right, the redemption price of the Securities will be determined by the Security Calculation Agent in a manner reasonably calculated to preserve your and our relative economic positions.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in the attached prospectus under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent, in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, plus
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five (5) Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Business Day after the first Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Business Days after that first Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or

- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of, Adjustments to or Benchmark Event Affecting the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor or Index Calculation Agent discontinues publication of, or otherwise fails to publish, the Index, (ii) a Benchmark Event (as described below) under the EU Benchmarks Regulation (as described under "Risk Factors — The Securities are linked to the Index and are subject to certain regulatory risks") occurs with respect to the Index or the Index Sponsor, (iii) our license agreement with the Index Sponsor terminates or (iv) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an EU Benchmarks Regulation-compliant index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a "**successor index**"), and the Security Calculation Agent approves such index as a successor index, then the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination, and the amount payable at maturity, call or upon early redemption and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

For purposes of the above, a "**Benchmark Event**" will occur if the applicable registration for the Index or Index Sponsor is not effective or has been suspended or withdrawn by the relevant authority with the effect that the use of the Index or the Index Sponsor is not permitted under the EU Benchmarks Regulation.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the "**Substitute Index**"), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, including the Current Indicative Value (or "intraday indicative value"), Closing Indicative Value, Index Factor, Residual Factor, Daily Tracking Fee, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, upon early redemption by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An "**Index Replacement Event**" means:

- a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties' ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after October 20, 2020 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- c) any event that occurs on or after October 20, 2020 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a substitute index, or the value thereof, is changed in a material respect, or if the Index or a successor index is in any other way modified so that the Index Closing Level of the Index or such successor index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor index with reference to the Index or such successor index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Daily Tracking Fee, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, and all related payment terms based on the Index Closing Level calculated by the Security Calculation Agent, as adjusted. Accordingly, if the method of calculating the Index or a successor index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the Index), which, in turn, causes the Index Closing Level of the Index or such successor index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor index as if it had not been modified (*e.g.*, as if such split had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or call, or upon early redemption will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Business Day

When we refer to a Business Day with respect to the Securities, we mean a day that is a Business Day of the kind described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the accompanying prospectus.

Modified Business Day

As described in “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” in the attached prospectus, any payment on the Securities that would otherwise be due on a day that is not a Business Day may instead be paid on the next day that is a Business Day, with the same effect as if paid on the original due date, except as described under “— Cash Settlement Amount at Maturity,” “— UBS’s Call Right” and “— Early Redemption at the Option of the Holders” above.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in the accompanying prospectus.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

20. ETRACS 2x Leveraged MSCI USA ESG Focus TR ETN due September 15, 2061

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below.

The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or upon early redemption or call. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is September 15, 2061, which will be the third Index Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated upon Zero Value Event, you will receive at maturity a cash payment equal to its Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

UBS may call the Securities prior to the Maturity Date pursuant to its Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “— UBS Call Right.”

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The Closing Indicative Value represents the dollar value per Security that an investor would receive on any day if it redeemed the Security that day (without giving effect to any Redemption Fee Amount).

The “**Closing Indicative Value**” per Security, will be calculated as follows:

- (a) on the Initial Trade Date, \$25.00 per Security.
- (b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor) – Accrued Fees
- (c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) – Accrued Fees + Measurement Period Cash Amount

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is *less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Closing Indicative Value for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs, the Closing Indicative Value will be equal to zero on the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event.”

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged notional investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would approximately equal the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero for the remaining term of the Securities. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be automatically accelerated and mandatorily redeemed and you will lose your entire investment.

The Current Principal Amount per Security, will be calculated as follows:

- (a) From and including the Initial Trade Date to and excluding the first Reset Valuation Date, \$25.00 per Security.
- (b) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:
$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the first Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, such day will not be a valid Reset Valuation Date.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset.

The “**Reset Valuation Date**” means:

- (a) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and
- (b) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The valuation dates are defined below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, it will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the second Wednesday of January, April, July and October of each calendar year during the term of the Securities (other than an Excluded Day, as defined below), subject to adjustment as described under “— Market Disruption Event.”

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor times the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

The “**Residual Factor**” will be calculated as follows:

- (a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- (b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, divided by (b) four.

For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 3/4, on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 2/4, on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 1/4 and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.

- (c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 2.0. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is the Index Closing Level on the Initial Trade Date, as reported by Bloomberg and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg and Reuters on such day; however, if the closing level of the Index as reported on Bloomberg (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) was determined on September 14, 2021 by the Security Calculation Agent. If the closing level of the Index, as reported on Bloomberg and Reuters for any Index Business Day, is manifestly incorrect, the “**Index Closing Level**” for such Index Business Day shall be the closing level of the Index as determined by the Security Calculation Agent. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates.

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or, if UBS exercises its Call Right, the Call Measurement Period.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- (a) On the Initial Trade Date, \$25.00.
- (b) On any other calendar day prior to the first day of a Measurement Period:
(Current Principal Amount on the immediately preceding calendar day × Index Factor, calculated using the Intraday Index Value) – Accrued Fees
- (c) From and including the first day of a Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor, calculated using the Intraday Index Value × Residual Factor on the immediately preceding calendar day) – Accrued Fees + Measurement Period Cash Amount, from the immediately preceding calendar day

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is *less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Current Indicative Value for the remainder of that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (intraday indicative value).

If a Zero Value Event occurs, the Current Indicative Value (intraday indicative value) will be equal to zero for the remainder of the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event.”

If the Securities undergo a split or reverse split, the Current Indicative Value (intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly.

The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, *plus* (b) the Daily Tracking Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- (b) On any subsequent calendar day, the Daily Tracking Fee is equal to:
(1) (i) 0.95% times (ii) the Current Principal Amount on the immediately preceding calendar day times (iii) the Index Factor on such calendar day times (iv) the Residual Factor on the immediately preceding calendar day, divided by (2) 365.
- (c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly.

The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Financing Fee is equal to:
 - (1) the Accrued Financing Fee as of the immediately preceding calendar day, plus (2) the Daily Financing Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- (d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Daily Financing Fee is equal to:
 - (1) (i) the Financing Rate on such calendar day times (ii) the Current Principal Amount on the immediately preceding calendar day times (iii) the Residual Factor on the immediately preceding calendar day, divided by (2) 360.
- (c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.
- (d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Index. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 1.55% and (b) SOFR on the immediately preceding U.S. Government Securities Business Day. The minimum value of SOFR (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 1.55%.

For example, 0.05% was the SOFR rate on September 10, 2021, which was a U.S. Government Securities

Business Day. The Financing Rate on September 13, 2021 would therefore have been equal to 1.55% + 0.05%, or 1.60%.

“**SOFR**” means, with respect to any U.S. Government Securities Business Day, the daily secured overnight financing rate for such U.S. Government Securities Business Day as provided by the SOFR Administrator on the SOFR Administrator’s Website. If for any U.S. Government Securities Business Day, the SOFR in respect of that day has not been published on the SOFR Administrator’s Website by the time the Security Calculation Agent determines the Financing Rate for the immediately succeeding day and the Security Calculation Agent has not determined that SOFR has been discontinued, then the SOFR for such day will be the secured overnight financing rate as published in respect of the first preceding U.S. Government Securities Business Day for which the secured overnight financing rate was published on the SOFR Administrator’s Website.

“**SOFR Administrator**” means the Federal Reserve Bank of New York (or a successor administrator of SOFR).

“**SOFR Administrator’s Website**” means the website of the SOFR Administrator, currently at <http://www.newyorkfed.org>, or any successor source.

“**U.S. Government Securities Business Day**” means any day except for a Saturday, a Sunday or a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities.

Information About the Secured Overnight Financing Rate

All disclosures contained herein regarding the secured overnight financing rate, including, without limitation, its make-up and method of calculation, have been derived from publicly available sources. The information reflects the policies of, and is subject to change by the Federal Reserve Bank of New York. The secured overnight financing rate is published by the Federal Reserve Bank of New York, but the Federal Reserve Bank of New York has no obligation to continue to publish, and may discontinue publication of, the secured overnight financing rate. Neither UBS nor any of its affiliates accepts any responsibility for the calculation, maintenance or publication of the secured overnight financing rate or any successor or replacement rate. Information from outside sources including, but not limited to any website referenced in this section, is not incorporated by reference in, and should not be considered part of, this document or any document incorporated herein by reference. UBS has not conducted any independent review or due diligence of any publicly available information with respect to the secured overnight financing rate.

The secured overnight financing rate is published by the Federal Reserve Bank of New York and is intended to be a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury securities. The Federal Reserve Bank of New York reports that secured overnight financing rate includes all trades in the “Broad General Collateral Rate” (as defined on the Federal Reserve Bank of New York’s Website), plus bilateral Treasury repurchase agreement transactions cleared through the delivery-versus-payment service offered by the Fixed Income Clearing Corporation (the “FICC”), a subsidiary of the Depository Trust and Clearing Corporation (“DTCC”). The secured overnight financing rate is filtered by the Federal Reserve Bank of New York to remove a portion of the foregoing transactions considered to be “Specials”, which are repurchases for specific-issue collateral, which take place at cash-lending rates below those for general collateral repurchases because cash providers are willing to accept a lesser return on their cash in order to obtain a particular security.

The Federal Reserve Bank of New York reports that the secured overnight financing rate is calculated as a volume-weighted median of transaction-level tri-party repo data collected from The Bank of New York Mellon (“BNYM”) as well as General Collateral Finance repurchase agreement transaction data and data on bilateral Treasury repurchase transactions cleared through the FICC’s delivery-versus-payment service. The Federal Reserve Bank of New York notes that it obtains information from DTCC Solutions LLC, an affiliate of DTCC. The Federal Reserve Bank of New York notes on its publication page for the secured overnight financing rate that use of the secured overnight financing rate is subject to important limitations and disclaimers, including that the Federal Reserve Bank of New York may alter the methods of calculation, publication schedule, rate revision practices or availability of the secured overnight financing rate at any time without notice. The secured overnight financing rate is published at approximately 8:00 a.m. (New York time) on each U.S. Government Securities Business Day for trades made on the immediately preceding U.S. Government Securities Business Day. If the Federal Reserve Bank of New York discovers errors in the transaction data provided by either BNYM or DTCC, or in the calculation process, subsequent to the rate publication but on that same day, the secured overnight financing rate and accompanying summary statistics may be republished at approximately 2:30 p.m. (New York time). Similarly, if transaction data from BNYM or DTCC had previously not been available in time for publication, but became available later in the day, the secured overnight financing rate may be republished at approximately 2:30 p.m. (New York time). Rate revisions will only be effected on the same day as initial publication and will only be republished if the change in the rate exceeds one basis point (0.01%), though the Federal Reserve Bank of New York will review this revision threshold periodically and could modify it after any such review. The description of the secured overnight financing rate herein does not purport to be exhaustive.

Because the secured overnight financing rate is published by the Federal Reserve Bank of New York based on data received from other sources, neither UBS nor any of our affiliates has any control over its determination, calculation or publication. There can be no guarantee that the secured overnight financing rate will not be discontinued or fundamentally altered in a manner that is materially adverse to the interests of investors in the Securities. If the manner in which the secured overnight financing rate is calculated is changed, that change may result in an increase in the Financing Rate on the Securities.

The Federal Reserve Bank of New York began publishing the secured overnight financing rate in April 2018. The Federal Reserve Bank of New York has also published historical indicative secured overnight financing rates going back to August 2014. Investors should not rely on any historical changes or trends in the secured overnight financing rate as an indicator of future changes in the secured overnight financing rate. Also, since the secured overnight financing rate is relatively new, the Securities are not expected to have established trading market when issued, and an established trading market may never develop or may not be very liquid. In addition, if the secured overnight financing rate does not become widely used as a benchmark in securities that are similar or comparable to the Securities, the trading price of the Securities may be lower than those of other securities that are linked to rates that are more widely used. Similarly, market terms for exchange traded notes with financing rates linked to the secured overnight financing rate may evolve over time, and trading prices of the Securities may be lower than those of later-issued secured overnight financing rate-linked exchange traded notes as a result. Investors in the Securities may not be able to sell the Securities at all or may not be able to sell the Securities at prices comparable to similar investments that have a developed secondary market, and may consequently suffer from increased pricing volatility and market risk.

The secured overnight financing rate data is subject to the terms of use posted at newyorkfed.org. The Federal Reserve Bank of New York is not responsible for publication of the secured overnight financing rate rates by UBS, does not sanction or endorse any particular republication, and has no liability for your use. For a more complete discussion of the secured overnight financing rate, see the website of SOFR Administrator’s Website.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that SOFR (or any successor base rate) has been discontinued, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to the SOFR base rate (or such successor base rate), provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate for exchange traded notes similar to the Securities, then the Security Calculation Agent shall use such successor base rate; and;
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the SOFR base rate (or such successor base rate), in a manner that is consistent with industry-accepted practices for such substitute or successor base rate.

The establishment of SOFR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- (a) \$0.00 on any calendar day, to but excluding the first day of a Measurement Period.
- (b) On the first day of a one-day Measurement Period:
At the close of trading on such Index Business Day, (Current Principal Amount on the immediately preceding calendar day × Index Factor, on such Index Business Day).
- (c) From and including the first day of a four-day Measurement Period:
 - (i) At the close of trading on each Index Business Day during the four-day Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount on the calendar day immediately preceding the first day of such Measurement Period × 0.25 × Index Factor, on such Index Business Day); and
 - (ii) On any calendar day during the Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.
- (d) On any calendar day after the last Index Business Day of a Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

Notwithstanding the foregoing, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is less than or equal to the Measurement Period Cash Amount from the immediately preceding calendar day, then the Measurement Period Cash Amount for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable portion of the notional financing amount will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of a four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- (a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$500,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- (b) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$500,000,000, the four Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

(i) the Closing Indicative Value as of such Index Business Day times (ii) the number of Securities outstanding as reported by ESUSSO <Index> on Bloomberg.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently MSCI.

The “**Calculation Date**” means September 7, 2061, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustment.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Business Day**” means any day that is not a Saturday, Sunday or a day on which banking institutions in The City of New York, generally, are authorized or obligated by law, regulation or executive order to close.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return on the securities is linked to the performance of the MSCI USA ESG Focus Index Gross Total Return USD (Bloomberg: “M2USESG”). The Index is designed to maximize exposure to positive ESG factors while exhibiting risk and return characteristics similar to those of the MSCI USA Index. We refer to the companies included in the Index as the “Index Constituent Securities”. The Index is developed and calculated by MSCI. **The Index is a total return index and the Index level reflects the notional reinvestment of the cash distributions from its constituent securities.**

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event”, you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon and a confirmation of redemption by no later than 5:00 p.m. on the same Index Business Day. You must request that we redeem a minimum of 50,000 Securities, although we reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the notice of redemption rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities; however, there can be no assurance that they can or will do so.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The First Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if we have issued a call notice, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event”.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to: $(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date})$.

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

Closing Indicative Value as of the Redemption Valuation Date – Redemption Fee Amount.

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to reduce or waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Index Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

The Securities may be called by UBS prior to the Maturity Date pursuant to its Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “— UBS Call Right” and “— Automatic Acceleration Upon Zero Value Event.”

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon, or your Redemption Confirmation after 5:00 p.m., on the Index Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to reduce or waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the Redemption Notice rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS Call Right

UBS may at its option redeem all, but not less than all, of the issued and outstanding Securities. To exercise its Call Right, UBS must provide notice to the holders of such Securities (which may be provided via press release) not less than 18 calendar days prior to the Call Settlement Date specified by UBS in such notice. If we call the Securities, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS’s exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Index Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Index Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event”.

The “**Call Measurement Period**” means:

- (a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is less than \$500,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”; and
- (b) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is equal to or greater than \$500,000,000, the four Index Business Days from and including the Call Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “Market Value” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of its Call Right will equal:

- (i) The Closing Indicative Value as of such Index Business Day times (ii) the number of Securities outstanding as reported by ESUSSO <Index> on Bloomberg.

The “**Call Valuation Date**” means the date we specify in our notice to holders (which may be provided via press release) of our exercise of our Call Right.

In any notice to holders exercising our Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

Closing Indicative Value, on last Index

$$\text{Cash Settlement Amount} = \text{Business Day in Call Measurement Period}$$

You may lose all or a substantial portion of your investment if we exercise our Call Right. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

In addition, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “— Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

A Zero Value Event represents the first instance when the Current Indicative Value (intraday indicative value) or the Closing Indicative Value is less than or equal to zero (other than on an Excluded Day, as defined below). It will have the effect of permanently resetting the value of your Securities to zero and accelerating the Securities. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event.

A Zero Value Event can occur only if a Permanent Deleveraging Event occurs and the Current Indicative Value (intraday indicative value) or the Closing Indicative Value declines to zero before the leverage of your Securities is reset to 1.0 at the close of trading on the Index Business Day following such event (or if such event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, the second Index Business Day following such event), as described under “Permanent Deleveraging Valuation Dates” above.

A “**Zero Value Event**” occurs if the Current Indicative Value (intraday indicative value) or the Closing Indicative Value on any Index Business Day (other than an Excluded Day, as defined below) is less than or equal to zero. From immediately after the Zero Value Event and on all future calendar days, the Current Indicative Value (intraday indicative value) and the Closing Indicative Value will be set equal to zero.

As used above, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on or after which a Zero Value Event has already occurred, and (iii) any calendar day after the last day of an applicable Measurement Period.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event; provided that the failure to do so shall not affect the automatic acceleration and redemption of the Securities. The Securities will be suspended from trading intraday shortly after the event occurs and will likely not be open for trading again on NYSE Arca.

You will lose your entire investment upon the occurrence of a Zero Value Event.

In addition, we may call the Securities prior to the Maturity Date pursuant to our Call Right. See “— UBS Call Right.”

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day, as used below) decreases by 20% or more from the previous Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, and (viii) any calendar day on or after which a Zero Value Event has occurred.

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”; and
- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0 over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 2.0 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities than it would have had before the occurrence of the Permanent Deleveraging Event. If such an event were to occur, it most likely would occur only following a Loss Rebalancing Event and prior to the completion of the associated leverage reset to 2.0, which would generally occur at the end of the Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred or, if the Loss Rebalancing Event occurs 3:15 p.m. on an Index Business Day, at the end of the second Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred.

A “**Permanent Deleveraging Event**” occurs if, at any time on an Index Business Day (other than an Excluded Day, as defined below), the Intraday Index Value decreases by 40% or more from the Last Reset Index Closing Level. If a Permanent Deleveraging Event occurs, the Current Principal Amount of the Securities will be reset over two Index Business Days.

As used above, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) any day on or after which a Zero Value Event occurs, (iv) the day which is two Index Business Days prior to the first day of a Measurement Period, if a Permanent Deleveraging Event occurs after 3:15 p.m. on such day, and (v) any calendar day from and including the Index Business Day immediately preceding the first day of a Measurement Period.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- (a) The “**First Permanent Deleveraging Valuation Date**” means:
 - i. any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “— Market Disruption Event”; or
 - ii. if a Permanent Deleveraging Event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to approximately 2.0 at the close of trading on the First Permanent Deleveraging Valuation Date.

- (b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Split or Reverse Split of the Securities

We may, at any time in our sole discretion, initiate a split or reverse split of your Securities. If we decide to initiate a split or reverse split, as applicable, we will issue a press release announcing the split or reverse split and its effective date. The date of such press release shall be deemed to be the “**announcement date**” of the split or the reverse split, the record date for any split or reverse split will be the tenth Business Day after the announcement date, and the effective date will be the next Business Day after the record date.

If the Securities undergo a split or reverse split, we will adjust the Current Principal Amount, Closing Indicative Value, Current Indicative Value, Accrued Fees, Measurement Period Cash Amount and other relevant terms of the Securities accordingly. For example, if the Securities undergo a 4:1 split, every investor who holds a Security via The Depository Trust Company (“**DTC**”) on the relevant record date will, after the split, hold four Securities, and adjustments will be made as described below. The Current Principal Amount on such record date will be divided by four to reflect the 4:1 split. The adjusted Current Principal Amount will be rounded to eight decimal places. The split or reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The split will not occur if we exercise our Call Right before it becomes effective.

In the case of a reverse split, the Current Principal Amount and other relevant terms of the Securities will be adjusted accordingly and we will determine in our sole discretion the manner in which we will address odd numbers of Securities (commonly referred to as “partials”). For example, if the Securities undergo a 1:4 reverse split, every investor who holds four Securities via DTC on the relevant record date will, after the reverse split, hold only one Security and the Current Principal Amount of the Securities on such record date will be multiplied by four to reflect the 1:4 reverse split. The adjusted Current Principal Amount will be rounded to eight decimal places. The reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The reverse split will not occur if we exercise our Call Right before it becomes effective.

Holders who own a number of Securities on the record date that is not evenly divisible by the reverse split divisor (which in the case of a 1:4 reverse split, for example, will be 4) will receive the same treatment as all other holders for the maximum number of Securities they hold that is evenly divisible by the reverse split divisor. We will determine in our sole discretion the manner in which we compensate holders for their remaining or “partial” Securities when we announce the reverse split, though our current intention is to provide holders with a cash payment for their partials on the 17th Business Day following the announcement date in an amount equal to the appropriate percentage of the Closing Indicative Value of the reverse split-adjusted Securities on the 15th Business Day following the announcement date. For example, in the case of a 1:4 reverse split, a holder who held 23 Securities via DTC on the record date would receive five post-reverse split Securities on the immediately following Business Day, and a cash payment on the 17th Business Day following the announcement date that is equal to $\frac{3}{4}$ of the Current Principal Amount of the reverse split-adjusted Securities on the 15th Business Day following the announcement date.

Security Calculation Agent

UBS Securities LLC will act as the “Security Calculation Agent.” The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Value (which we also refer to as the intraday indicative value), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the SOFR base rate), the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, that we will pay you if we call the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. If any Intraday Index Value as published by Bloomberg on any Index Business Day is manifestly incorrect, the Security Calculation Agent may base its determination of whether a Loss Rebalancing Event, Permanent Deleveraging Event or Zero Value Event shall have occurred on such Index Business Day on its own determination of such Intraday Index Value. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Securities, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or upon early redemption or call, on or prior to 12:00 noon on the Index Business Day immediately preceding the Maturity Date, any Redemption Date or any Call Settlement Date.

All dollar amounts related to determination of the Accrued Fees, the Current Principal Amount, and any

Redemption Amount, Redemption Fee Amount, Call Settlement Amount or Cash Settlement Amount per Security will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid to any holder of Securities will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to either of the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging.”

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Index Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Index Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Index Business Day after the first Index Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Index Business Days after that first Index Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Index Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of, Adjustments to or Benchmark Event Affecting the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor or the Index Calculation Agent announces that it intends to discontinue, or discontinues, publication of, or otherwise fails to publish, the Index, (ii) a Benchmark Event (as described below) under the EU Benchmarks Regulation or UK Benchmarks Regulation (each as described under “Risk Factors – The Securities are linked to the Index and are subject to certain regulatory risks”) occurs with respect to the Index or the Index Sponsor, if applicable, (iii) our license agreement with the Index Sponsor terminates or (iv) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an EU Benchmarks Regulation compliant index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), and the Security Calculation Agent approves such index as a successor index, then on and after the date determined by the Security Calculation Agent, the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination and the amount payable at maturity or upon early redemption or call and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice of the successor index and the date on and after which the Index Closing Level will be determined by reference thereto to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

For purposes of the above, a “**Benchmark Event**” may occur if the EU Benchmarks Regulation and/or UK Benchmarks Regulation, as applicable, applies to this issuance of Securities, and the applicable registration for the Index or Index Sponsor is not effective or has been suspended or withdrawn by the relevant authority with the effect that the use of the Index or the Index Sponsor is not permitted under the EU Benchmarks Regulation or UK Benchmarks Regulation, as applicable.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, Current Principal Amount, Current Indicative Value (intraday indicative value), Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity or upon early redemption or call by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties' ability to perform their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after September 14, 2021 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after September 14, 2021 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities, or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a Substitute Index, or the value thereof, is changed in a material respect, or if the Index or a successor or Substitute Index is in any other way modified so that the Index Closing Level of the Index or such successor or Substitute Index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor or Substitute Index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor or Substitute Index with reference to the Index or such successor or Substitute Index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Last Reset Index Closing Level, the Accrued Fees, and any Redemption Amount, Redemption Fee Amount, Cash Settlement Amount or Call Settlement Amount, and all related payment terms based directly or indirectly on the Index Closing Level calculated by the Security Calculation Agent. Accordingly, if the method of calculating the Index or a successor or Substitute Index is modified so that the level of the Index or such successor or Substitute Index is a fraction or multiple of what it would have been if there had been no such modification (e.g., due to a rebasing of the Index), which, in turn, causes the Index Closing Level of the Index or such successor or Substitute Index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor or Substitute Index as if it had not been modified (e.g., as if such rebasing had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference to the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — Risks Relating to Creditworthiness, Conflicts of Interest, Hedging Activities and Regulation of UBS — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or upon early redemption or call will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Reissuances or Reopened Issues

We may, at our sole discretion, "reopen" or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to "Description of Debt Securities We May Offer — Amounts That We May Issue" in "Medium-Term Notes, Series B" above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC's settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

21. ETRACS 2x Leveraged IFED Invest with the Fed TR Index ETN due September 15, 2061

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below. The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or upon early redemption or call. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is September 15, 2061, which will be the third Index Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated upon Zero Value Event, you will receive at maturity a cash payment equal to its Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

UBS may call the Securities prior to the Maturity Date pursuant to its Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “— UBS Call Right”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The Closing Indicative Value represents the dollar value per Security that an investor would receive on any day if it redeemed the Security that day (without giving effect to any Redemption Fee Amount).

The “**Closing Indicative Value**” per Security, will be calculated as follows:

- (a) On the Initial Trade Date, \$25.00 per Security.
- (b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor) – Accrued Fees
- (c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) – Accrued Fees + Measurement Period Cash Amount

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is less than or equal to the Measurement Period Cash Amount from the immediately preceding calendar day, the Closing Indicative Value for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs, the Closing Indicative Value will be equal to zero on the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged notional investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would approximately equal the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero for the remaining term of the Securities. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be automatically accelerated and mandatorily redeemed and you will lose your entire investment.

The Current Principal Amount per Security, will be calculated as follows:

- (a) From and including the Initial Trade Date to and excluding the first Reset Valuation Date, \$25.00 per Security.
- (b) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:

$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the first Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, such day will not be a valid Reset Valuation Date.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset.

The “Reset Valuation Date” means:

- (a) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and
- (b) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The valuation dates are defined below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, it will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the second Wednesday of January, April, July and October of each calendar year during the term of the Securities (other than an Excluded Day, as defined below), subject to adjustment as described under “— Market Disruption Event”.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor times the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

The “**Residual Factor**” will be calculated as follows:

- (a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- (b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, divided by (b) four.

For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 3/4, on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 2/4, on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 1/4 and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.

- (c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 2.0. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is the Index Closing Level on the Initial Trade Date, as reported by Bloomberg and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg and Reuters on such day; however, if the closing level of the Index as reported on Bloomberg (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) was determined on September 14, 2021 by the Security Calculation Agent. If the closing level of the Index, as reported on Bloomberg and Reuters for any Index Business Day, is manifestly incorrect, the “**Index Closing Level**” for such Index Business Day shall be the closing level of the Index as determined by the Security Calculation Agent. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates.

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or, if UBS exercises its Call Right, the Call Measurement Period.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- (a) On the Initial Trade Date, \$25.00.
- (b) On any other calendar day prior to the first day of a Measurement Period:
(Current Principal Amount on the immediately preceding calendar day \times Index Factor, calculated using the Intraday Index Value) – Accrued Fees
- (c) From and including the first day of a Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period \times Index Factor, calculated using the Intraday Index Value \times Residual Factor on the immediately preceding calendar day) – Accrued Fees + Measurement Period Cash Amount, from the immediately preceding calendar day

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is less than or equal to the Measurement Period Cash Amount from the immediately preceding calendar day, the Current Indicative Value for the remainder of that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (intraday indicative value).

If a Zero Value Event occurs, the Current Indicative Value (intraday indicative value) will be equal to zero for the remainder of the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly.

The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, plus (b) the Daily Tracking Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- (b) On any subsequent calendar day, the Daily Tracking Fee is equal to:
(1) (i) 0.95% times (ii) the Current Principal Amount on the immediately preceding calendar day times (iii) the Index Factor on such calendar day times (iv) the Residual Factor on the immediately preceding calendar day, divided by (2) 365.
- (c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly.

The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.

- (b) On any subsequent calendar day, the Accrued Financing Fee is equal to:
 - (1) the Accrued Financing Fee as of the immediately preceding calendar day, plus (2) the Daily Financing Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- (d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Daily Financing Fee is equal to:
 - (1) (i) the Financing Rate on such calendar day *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 360.
- (c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.
- (d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Index. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 1.55% and (b) SOFR on the immediately preceding U.S. Government Securities Business Day. The minimum value of SOFR (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 1.55%.

For example, 0.05% was the SOFR rate on September 10, 2021, which was a U.S. Government Securities Business Day. The Financing Rate on September 13, 2021 would therefore have been equal to 1.55% + 0.05%, or 1.60.

“**SOFR**” means, with respect to any U.S. Government Securities Business Day, the daily secured overnight financing rate for such U.S. Government Securities Business Day as provided by the SOFR Administrator on the SOFR Administrator’s Website. If for any U.S. Government Securities Business Day, the SOFR in respect of that day has not been published on the SOFR Administrator’s Website by the time the Security Calculation Agent determines the Financing Rate for the immediately succeeding day and the Security Calculation Agent has not determined that SOFR has been discontinued, then the SOFR for such day will be the secured overnight financing rate as published in respect of the first preceding U.S. Government Securities Business Day for which the secured overnight financing rate was published on the SOFR Administrator’s Website.

“**SOFR Administrator**” means the Federal Reserve Bank of New York (or a successor administrator of SOFR).

“**SOFR Administrator’s Website**” means the website of the SOFR Administrator, currently at <http://www.newyorkfed.org>, or any successor source.

“**U.S. Government Securities Business Day**” means any day except for a Saturday, a Sunday or a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities.

Information About the Secured Overnight Financing Rate

All disclosures contained herein regarding the secured overnight financing rate, including, without limitation, its make-up and method of calculation, have been derived from publicly available sources. The information reflects the policies of, and is subject to change by the Federal Reserve Bank of New York. The secured overnight financing rate is published by the Federal Reserve Bank of New York, but the Federal Reserve Bank of New York has no obligation to continue to publish, and may discontinue publication of, the secured overnight financing rate. Neither UBS nor any of its affiliates accepts any responsibility for the calculation, maintenance or publication of the secured overnight financing rate or any successor or replacement rate. Information from outside sources including, but not limited to any website referenced in this section, is not incorporated by reference in, and should not be considered part of, this document or any document incorporated herein by reference. UBS has not conducted any independent review or due diligence of any publicly available information with respect to the secured overnight financing rate.

The secured overnight financing rate is published by the Federal Reserve Bank of New York and is intended to be a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury securities. The Federal Reserve Bank of New York reports that secured overnight financing rate includes all trades in the “Broad General Collateral Rate” (as defined on the Federal Reserve Bank of New York’s Website), plus bilateral Treasury repurchase agreement transactions cleared through the delivery-versus-payment service offered by the Fixed Income Clearing Corporation (the “FICC”), a subsidiary of the Depository Trust and Clearing Corporation (“DTCC”). The secured overnight financing rate is filtered by the Federal Reserve Bank of New York to remove a portion of the foregoing transactions considered to be “Specials”, which are repurchases for specific-issue collateral, which take place at cash-lending rates below those for general collateral repurchases because cash providers are willing to accept a lesser return on their cash in order to obtain a particular security.

The Federal Reserve Bank of New York reports that the secured overnight financing rate is calculated as a volume-weighted median of transaction-level tri-party repo data collected from The Bank of New York Mellon (“BNYM”) as well as General Collateral Finance repurchase agreement transaction data and data on bilateral Treasury repurchase transactions cleared through the FICC’s delivery-versus-payment service. The Federal Reserve Bank of New York notes that it obtains information from DTCC Solutions LLC, an affiliate of DTCC. The Federal Reserve Bank of New York notes on its publication page for the secured overnight financing rate that use of the secured overnight financing rate is subject to important limitations and disclaimers, including that the Federal Reserve Bank of New York may alter the methods of calculation, publication schedule, rate revision practices or availability of the secured overnight financing rate at any time without notice. The secured overnight financing rate is published at approximately 8:00 a.m. (New York time) on each U.S. Government Securities Business Day for trades made on the immediately preceding U.S. Government Securities Business Day. If the Federal Reserve Bank of New York discovers errors in the transaction data provided by either BNYM or DTCC, or in the calculation process, subsequent to the rate publication but on that same day, the secured overnight financing rate and accompanying summary statistics may be republished at approximately 2:30 p.m. (New York time). Similarly, if transaction data from BNYM or DTCC had previously not been available in time for publication, but became available later in the day, the secured overnight financing rate may be republished at approximately 2:30 p.m. (New York time). Rate revisions will only be effected on the same day as initial publication and will only be republished if the change in the rate exceeds one basis point (0.01%), though the Federal Reserve Bank of New York will review this revision threshold periodically and could modify it after any such review. The description of the secured overnight financing rate herein does not purport to be exhaustive.

Because the secured overnight financing rate is published by the Federal Reserve Bank of New York based on data received from other sources, neither UBS nor any of our affiliates has any control over its determination, calculation or publication. There can be no guarantee that the secured overnight financing rate will not be discontinued or fundamentally altered in a manner that is materially adverse to the interests of investors in the Securities. If the manner in which the secured overnight financing rate is calculated is changed, that change may result in an increase in the Financing Rate on the Securities.

The Federal Reserve Bank of New York began publishing the secured overnight financing rate in April 2018. The Federal Reserve Bank of New York has also published historical indicative secured overnight financing rates going back to August 2014. Investors should not rely on any historical changes or trends in the secured overnight financing rate as an indicator of future changes in the secured overnight financing rate. Also, since the secured overnight financing rate is relatively new, the Securities are not expected to have established trading market when issued, and an established trading market may never develop or may not be very liquid. In addition, if the secured overnight financing rate does not become widely used as a benchmark in securities that are similar or comparable to the Securities, the trading price of the Securities may be lower than those of other securities that are linked to rates that are more widely used. Similarly, market terms for exchange traded notes with financing rates linked to the secured overnight financing rate may evolve over time, and trading prices of the Securities may be lower than those of later-issued secured overnight financing rate-linked exchange traded notes as a result. Investors in the Securities may not be able to sell the Securities at all or may not be able to sell the Securities at prices comparable to similar investments that have a developed secondary market, and may consequently suffer from increased pricing volatility and market risk.

The Federal Reserve Bank of New York is not responsible for publication of the secured overnight financing rate rates by UBS, does not sanction or endorse any particular republication, and has no liability for your use. For a more complete discussion of the secured overnight financing rate, see the website of SOFR Administrator’s Website.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that SOFR (or any successor base rate) has been discontinued, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to the SOFR base rate (or such successor base rate), provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate for exchange traded notes similar to the Securities, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the SOFR base rate (or such successor base rate), in a manner that is consistent with industry-accepted practices for such substitute or successor base rate.

The establishment of SOFR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- (a) \$0.00 on any calendar day, to but excluding the first day of a Measurement Period.
- (b) On the first day of a one-day Measurement Period:
At the close of trading on such Index Business Day, (Current Principal Amount on the immediately preceding calendar day × Index Factor, on such Index Business Day).
- (c) From and including the first day of a four-day Measurement Period:
 - (i) At the close of trading on each Index Business Day during the four-day Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount on the calendar day immediately preceding the first day of such Measurement Period × 0.25 × Index Factor, on such Index Business Day); and
 - (ii) On any calendar day during the Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.
- (d) On any calendar day after the last Index Business Day of a Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

Notwithstanding the foregoing, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is *less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, then the Measurement Period Cash Amount for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable portion of the notional financing amount will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of a four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- (a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$500,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- (b) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$500,000,000, the four Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day times (ii) the number of Securities outstanding as reported by FEDLSO <Index> on Bloomberg.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which is currently Indxx LLC.

The “**Calculation Date**” means September 7, 2061, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustment.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Business Day**” means any day that is not a Saturday, Sunday or a day on which banking institutions in The City of New York, generally, are authorized or obligated by law, regulation or executive order to close.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The IFED Large-Cap US Equity Index Total Return (Bloomberg: “IFEDLT”) is the total return version of the IFED Large-Cap US Equity Index (Bloomberg: “IFEDL”). The Index tracks large-cap U.S. equities that are determined by Economic Index Associates, LLC (“EIA” or the “Index Sponsor”) to be best positioned to benefit from the prevailing monetary environment. We refer to the companies included in the Index as the “Index Constituent Securities”. The Index is developed by EIA and calculated by Indxx LLC (“Indxx”). **The Index is a total return index and the Index level reflects the notional reinvestment of the cash distributions from its constituent securities.**

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event”, you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon and a confirmation of redemption by no later than 5:00 p.m. on the same Index Business Day. You must request that we redeem a minimum of 50,000 Securities, although we reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the notice of redemption rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities; however, there can be no assurance that they can or will do so.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The First Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if we have issued a call notice, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event”.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date}).$$

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}.$$

We refer to this cash payment as the “**Redemption Amount.**” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to reduce or waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Index Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value. The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

The Securities may be called by UBS prior to the Maturity Date pursuant to its Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “— UBS Call Right” and “— Automatic Acceleration Upon Zero Value Event”.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “Redemption Confirmation”, to us via email in the specified form by 5:00 p.m. on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon, or your Redemption Confirmation after 5:00 p.m., on the Index Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to reduce or waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the Redemption Notice rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS Call Right

UBS may at its option redeem all, but not less than all, of the issued and outstanding Securities. To exercise its Call Right, UBS must provide notice to the holders of such Securities (which may be provided via press release) not less than 18 calendar days prior to the Call Settlement Date specified by UBS in such notice. If we call the Securities, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS’s exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Index Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Index Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event”.

The “**Call Measurement Period**” means:

- (a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is less than \$500,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”; and
- (b) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is equal to or greater than \$500,000,000, the four Index Business Days from and including the Call Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of its Call Right will equal:

- (i) The Closing Indicative Value as of such Index Business Day times (ii) the number of Securities outstanding as reported by FEDLSO <Index> on Bloomberg.

The “**Call Valuation Date**” means the date we specify in our notice to holders (which may be provided via press release) of our exercise of our Call Right.

In any notice to holders exercising our Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment if we exercise our Call Right. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

In addition, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “— Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

A Zero Value Event represents the first instance when the Current Indicative Value (intraday indicative value) or the Closing Indicative Value is less than or equal to zero (other than on an Excluded Day, as defined below). It will have the effect of permanently resetting the value of your Securities to zero and accelerating the Securities. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event.

A Zero Value Event can occur only if a Permanent Deleveraging Event occurs and the Current Indicative Value (intraday indicative value) or the Closing Indicative Value declines to zero before the leverage of your Securities is reset to 1.0 at the close of trading on the Index Business Day following such event (or if such event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, the second Index Business Day following such event), as described under “Permanent Deleveraging Valuation Dates” above.

A “**Zero Value Event**” occurs if the Current Indicative Value (intraday indicative value) or the Closing Indicative Value on any Index Business Day (other than an Excluded Day, as defined below) is less than or equal to zero. From immediately after the Zero Value Event and on all future calendar days, the Current Indicative Value (intraday indicative value) and the Closing Indicative Value will be set equal to zero.

As used above, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on or after which a Zero Value Event has already occurred, and (iii) any calendar day after the last day of an applicable Measurement Period.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event; provided that the failure to do so shall not affect the automatic acceleration and redemption of the Securities. The Securities will be suspended from trading intraday shortly after the event occurs and will likely not be open for trading again on NYSE Arca.

You will lose your entire investment upon the occurrence of a Zero Value Event.

In addition, we may call the Securities prior to the Maturity Date pursuant to our Call Right. See “Specific Terms of the Securities — UBS Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day, as used below) decreases by 20% or more from the previous Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, and (viii) any calendar day on or after which a Zero Value Event has occurred.

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event” beginning on page S-84; and
- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0 over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 2.0 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities than it would have had before the occurrence of the Permanent Deleveraging Event. If such an event were to occur, it most likely would occur only following a Loss Rebalancing Event and prior to the completion of the associated leverage reset to 2.0, which would generally occur at the end of the Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred or, if the Loss Rebalancing Event occurs 3:15 p.m. on an Index Business Day, at the end of the second Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred.

A “**Permanent Deleveraging Event**” occurs if, at any time on an Index Business Day (other than an Excluded Day, as defined below), the Intraday Index Value decreases by 40% or more from the Last Reset Index Closing Level. If a Permanent Deleveraging Event occurs, the Current Principal Amount of the Securities will be reset over two Index Business Days.

As used above, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) any day on or after which a Zero Value Event occurs, (iv) the day which is two Index Business Days prior to the first day of a Measurement Period, if a Permanent Deleveraging Event occurs after 3:15 p.m. on such day, and (v) any calendar day from and including the Index Business Day immediately preceding the first day of a Measurement Period.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- (a) The “**First Permanent Deleveraging Valuation Date**” means:
 - (i) any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “— Market Disruption Event”; or
 - (ii) if a Permanent Deleveraging Event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to approximately 2.0 at the close of trading on the First Permanent Deleveraging Valuation Date.

- (b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Split or Reverse Split of the Securities

We may, at any time in our sole discretion, initiate a split or reverse split of your Securities. If we decide to initiate a split or reverse split, as applicable, we will issue a press release announcing the split or reverse split and its effective date. The date of such press release shall be deemed to be the “**announcement date**” of the split or the reverse split, the record date for any split or reverse split will be the tenth Business Day after the announcement date, and the effective date will be the next Business Day after the record date.

If the Securities undergo a split or reverse split, we will adjust the Current Principal Amount, Closing Indicative Value, Current Indicative Value, Accrued Fees, Measurement Period Cash Amount and other relevant terms of the Securities accordingly. For example, if the Securities undergo a 4:1 split, every investor who holds a Security via The Depository Trust Company (“**DTC**”) on the relevant record date will, after the split, hold four Securities, and adjustments will be made as described below. The Current Principal Amount on such record date will be divided by four to reflect the 4:1 split. The adjusted Current Principal Amount will be rounded to eight decimal places. The split or reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The split will not occur if we exercise our Call Right before it becomes effective.

In the case of a reverse split, the Current Principal Amount and other relevant terms of the Securities will be adjusted accordingly and we will determine in our sole discretion the manner in which we will address odd numbers of Securities (commonly referred to as “partials”). For example, if the Securities undergo a 1:4 reverse split, every investor who holds four Securities via DTC on the relevant record date will, after the reverse split, hold only one Security and the Current Principal Amount of the Securities on such record date will be multiplied by four to reflect the 1:4 reverse split. The adjusted Current Principal Amount will be rounded to eight decimal places. The reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The reverse split will not occur if we exercise our Call Right before it becomes effective.

Holders who own a number of Securities on the record date that is not evenly divisible by the reverse split divisor (which in the case of a 1:4 reverse split, for example, will be 4) will receive the same treatment as all other holders for the maximum number of Securities they hold that is evenly divisible by the reverse split divisor. We will determine in our sole discretion the manner in which we compensate holders for their remaining or “partial” Securities when we announce the reverse split, though our current intention is to provide holders with a cash payment for their partials on the 17th Business Day following the announcement date in an amount equal to the appropriate percentage of the Closing Indicative Value of the reverse split-adjusted Securities on the 15th Business Day following the announcement date. For example, in the case of a 1:4 reverse split, a holder who held 23 Securities via DTC on the record date would receive five post-reverse split Securities on the immediately following Business Day, and a cash payment on the 17th Business Day following the announcement date that is equal to 3/4 of the Current Principal Amount of the reverse split-adjusted Securities on the 15th Business Day following the announcement date.

Security Calculation Agent

UBS Securities LLC will act as the “Security Calculation Agent.” The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Value (which we also refer to as the intraday indicative value), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the SOFR base rate), the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, that we will pay you if we call the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. If any Intraday Index Value as published by Bloomberg on any Index Business Day is manifestly incorrect, the Security Calculation Agent may base its determination of whether a Loss Rebalancing Event, Permanent Deleveraging Event or Zero Value Event shall have occurred on such Index Business Day on its own determination of such Intraday Index Value. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Securities, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or upon early redemption or call, on or prior to 12:00 noon on the Index Business Day immediately preceding the Maturity Date, any Redemption Date or any Call Settlement Date.

All dollar amounts related to determination of the Accrued Fees, the Current Principal Amount, and any Redemption Amount, Redemption Fee Amount, Call Settlement Amount or Cash Settlement Amount per Security will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid to any holder of Securities will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Event, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to either of the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging.”

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys' fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Index Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Index Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Index Business Day after the first Index Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Index Business Days after that first Index Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Index Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of, Adjustments to or Benchmark Event Affecting the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor or the Index Calculation Agent announces that it intends to discontinue, or discontinues, publication of, or otherwise fails to publish, the Index, (ii) a Benchmark Event (as described below) under the EU Benchmarks Regulation or UK Benchmarks Regulation (each as described under "Risk Factors — The Securities are linked to the Index and are subject to certain regulatory risks") occurs with respect to the Index or the Index Sponsor, if applicable, (iii) our license agreement with the Index Sponsor terminates or (iv) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an EU Benchmarks Regulation compliant index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a "**successor index**"), and the Security Calculation Agent approves such index as a successor index, then on and after the date determined by the Security Calculation Agent, the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination and the amount payable at maturity or upon early redemption or call and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice of the successor index and the date on and after which the Index Closing Level will be determined by reference thereto to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

For purposes of the above, a “**Benchmark Event**” may occur if the EU Benchmarks Regulation and/or UK Benchmarks Regulation, as applicable, applies to this issuance of Securities, and the applicable registration for the Index or Index Sponsor is not effective or has been suspended or withdrawn by the relevant authority with the effect that the use of the Index or the Index Sponsor is not permitted under the EU Benchmarks Regulation or UK Benchmarks Regulation, as applicable. In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, Current Principal Amount, Current Indicative Value (intraday indicative value), Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity or upon early redemption or call by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after September 14, 2021 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- (c) any event that occurs on or after September 14, 2021 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities, or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a Substitute Index, or the value thereof, is changed in a material respect, or if the Index or a successor or Substitute Index is in any other way modified so that the Index Closing Level of the Index or such successor or Substitute Index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor or Substitute Index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor or Substitute Index with reference to the Index or such successor or Substitute Index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Last Reset Index Closing Level, the Accrued Fees, and any Redemption Amount, Redemption Fee Amount, Cash Settlement Amount or Call Settlement Amount, and all related payment terms based directly or indirectly on the Index Closing Level calculated by the Security Calculation Agent. Accordingly, if the method of calculating the Index or a successor or Substitute Index is modified so that the level of the Index or such successor or Substitute Index is a fraction or multiple of what it would have been if there had been no such modification (e.g., due to a rebasing of the Index), which, in turn, causes the Index Closing Level of the Index or such successor or Substitute Index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor or Substitute Index as if it had not been modified (e.g., as if such rebasing had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — Risks Relating to Creditworthiness, Conflicts of Interest, Hedging Activities and Regulation of UBS — There are potential conflicts of interest between you and the Security Calculation Agent" in this prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or upon early redemption or call will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of this prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B” above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

22. ETRACS IFED Invest with the Fed TR Index ETN due September 15, 2061

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 12, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below. The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or call, or upon early redemption. Instead, at maturity, you will receive a cash payment the amount of which will vary depending on the performance and path of the Index calculated in accordance with the formula set forth below and will be reduced by the Daily Tracking Fee as of the last Index Business Day in the applicable Measurement Period or Redemption Valuation Date.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment on the Redemption Date equal to the Redemption Amount as described below under “— Early Redemption at the Option of the Holders.” If the amount so calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

If we elect to exercise our call right to redeem all of the Securities, subject to compliance with the procedures set forth below, for each Security you will receive a cash payment on the Call Settlement Date equal to the Call Settlement Amount, as described below under “— UBS Call Right.” If the amount so calculated is equal to or less than zero, the Call Settlement Amount will be zero and you will not receive a cash payment.

The Securities will not pay any cash coupon during their term.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is September 15, 2061, which will be the third Index Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called or redeemed, you will receive at maturity a cash payment equal to the Closing Indicative Value on the last day of the Final Measurement Period. We refer to this payment as the “**Cash Settlement Amount**”. If the amount so calculated is equal to or less than zero, the payment at maturity will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}$$

You may lose all or a substantial portion of your investment at maturity. The Securities are fully exposed to any decline in the level of the Index. The negative effect of the Daily Tracking Fee will reduce your final payment. If the level of the Index (as measured by the Index Closing Level at the end of the Final Measurement Period, as compared to the initial Index Closing Level or the Index level at the time you purchase the Securities, as applicable) does not increase by an amount sufficient to offset the negative effect of the Daily Tracking Fee, or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose all or a substantial portion of your investment at maturity. The Daily Tracking Fee also takes into account the performance of the Index, as measured by the Closing Indicative Value.

The Securities may be called by UBS prior to the Maturity Date pursuant to the UBS Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “— UBS Call Right”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The “**Closing Indicative Value**” represents the dollar value per Security that an investor would receive on any day if it redeemed the Security on such day (excluding any Redemption Fee Amount). The Closing Indicative Value per Security will be calculated as follows:

- (a) On the Initial Trade Date, \$25.00 per Security
- (b) On any subsequent calendar day, prior to but excluding the first day of an applicable Measurement Period, an amount per Security equal to:
(Closing Indicative Value on the previous calendar day * Index Factor) — Daily Tracking Fee
- (c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Closing Indicative Value on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) + Measurement Period Cash Amount

The minimum value of the Closing Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Index Factor**” on any Index Business Day prior to but excluding the first day of an applicable Measurement Period, will equal:

- (i) the Index Closing Level, on such Index Business Day, divided by, (ii) the Index Closing Level, on the immediately preceding Index Business Day.

From and including the first day of an applicable Measurement Period, the Index Factor will equal:

- (i) the Index Closing Level, on such calendar day, divided by, (ii) the Index Closing Level on the calendar day immediately preceding the first day of such Measurement Period.

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the immediately preceding Index Business Day. The Index Factor will therefore equal one (1) on any calendar day that is not an Index Business Day and is prior to the first Index Business Day of a five-day Measurement Period.

The “**Residual Factor**” will be calculated as follows:

- (a) 1.0 on any calendar day, prior to but excluding the first day of an applicable Measurement Period
- (b) From and including the first day of an applicable five-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such five-day Measurement Period, divided by (b) five.

The Residual Factor is intended to approximate the percentage of the Closing Indicative Value that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas.

For example, on the first Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (4/5), on the second Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (3/5), on the third Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (2/5), on the fourth Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal (1/5) and on the last Index Business Day in an applicable five-day Measurement Period, the Residual Factor will equal zero.

On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg and Reuters on such day; however, if the closing level of the Index as reported on Bloomberg (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. If the closing level of the Index, as reported on Bloomberg and Reuters for any Index Business Day, is manifestly incorrect, the “Index Closing Level” for such Index Business Day shall be the closing level of the Index as determined by the Security Calculation Agent. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates. 23572.14 is the initial Index Closing Level measured on September 14, 2021 (the Initial Trade Date), as determined by the Security Calculation Agent.

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level from the last Index Business Day prior to such calendar day.

“**Measurement Period**” means the Final Measurement Period or Call Measurement Period, as applicable.

The “**Current Indicative Value**” or “intraday indicative value”, as determined by the Security Calculation Agent, means the Closing Indicative Value per Security calculated on an intraday basis on any Index Business Day.

For the purposes of calculating the Current Indicative Value, the Index Factor will be determined using the Intraday Index Value. Additionally, from and including the first day of an applicable Measurement Period, the Current Indicative Value will be calculated using (i) the Measurement Period Cash Amount from the immediately preceding calendar day, and (ii) the Residual Factor from the immediately preceding calendar day.

The minimum value of the Current Indicative Value (or intraday indicative value) on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (or intraday indicative value).

If the Securities undergo a split or reverse split, the Current Indicative Value (or intraday indicative value) will be adjusted accordingly.

The “**Daily Tracking Fee**” means, as of any date of determination, an amount per Security equal to 0.45% per annum, calculated as follows:

- (a) On the Initial Trade Date, \$0.00 per Security;
- (b) On any subsequent calendar day, prior to but excluding the first day of an applicable Measurement Period, an amount per Security equal to:
 $(0.45\% / 365) \times \text{Closing Indicative Value on the immediately preceding calendar day} \times \text{Index Factor}$
- (c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
 $(0.45\% / 365) \times \text{Closing Indicative Value on the calendar day immediately preceding the first day of the Measurement Period} \times \text{Index Factor} \times \text{Residual Factor on the immediately preceding calendar day}$

The minimum value of the Daily Tracking Fee on any calendar day will be zero.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- (a) \$0.00, on any calendar day prior to but excluding the first day of an applicable Measurement Period
- (b) On the first day of an applicable one-day Measurement Period:
 - (i) At the close of trading on such Index Business Day, the (Closing Indicative Value, on the immediately preceding calendar day, times Index Factor, on such Index Business Day), minus Daily Tracking Fee.
- (c) From and including the first day of an applicable five-day Measurement Period:
 - (i) At the close of trading on each Index Business Day, will equal:
 - (a) Measurement Period Cash Amount on the immediately preceding calendar day, *plus* (b) (i) Closing Indicative Value, on the calendar day immediately preceding the first day of such Measurement Period, *times* (ii) Index Factor, *divided* by (iii) five), *minus*
 - (c) Daily Tracking Fee.

- (ii) On any calendar day that is not an Index Business Day, will equal the Measurement Period Cash Amount on the immediately preceding Index Business Day, *minus* Daily Tracking Fee.
- (d) On any calendar day after the last Index Business Day of an applicable Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

The minimum value of the Measurement Period Cash Amount on any calendar day will be zero.

The Measurement Period Cash Amount represents the portion of the Closing Indicative Value that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business day during a five-day Measurement Period, approximately 20% of the Closing Indicative Value, on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash. After the close of trading on the final Index Business Day of an applicable five-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Closing Indicative Value that was deemed converted to cash across the five-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Closing Indicative Value will be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- (a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$250,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- (b) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$250,000,000, the five (5) Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “Market Value” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day, times (ii) the number of Securities outstanding as reported by IFEDSO <Index> on Bloomberg.

The “Index Calculation Agent” means the entity that calculates and publishes the level of the Index, which is currently Indxx LLC.

The “**Calculation Date**” means September 6, 2061 unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustment.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Business Day**” means any day that is not a Saturday, Sunday or a day on which banking institutions in The City of New York, generally, are authorized or obligated by law, regulation or executive order to close.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The IFED Large-Cap US Equity Index Total Return (Bloomberg: “IFEDLT”) is the total return version of the IFED Large-Cap US Equity Index (Bloomberg: “IFEDL”). The Index tracks large-cap U.S. equities that are determined by Economic Index Associates, LLC (“EIA” or the “**Index Sponsor**”) to be best positioned to benefit from the prevailing monetary environment. We refer to the companies included in the Index as the “Index Constituent Securities”. **The Index is developed by EIA and calculated by Indxx LLC (“Indxx”). The Index is a total return index and the Index level reflects the notional reinvestment of the cash distributions from its constituent securities.**

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event,” you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon, and a confirmation of redemption by no later than 5:00 p.m., on the same Index Business Day. You must request that we redeem a minimum of 50,000 Securities, although we reserve the right from time-to-time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the notice of redemption rather than the following Index Business Day. You should not assume that you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities; however, there can be no assurance that they can or will do so.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The First Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if we have issued a call notice, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event”.

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures,” for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

Closing Indicative Value as of the Redemption Valuation Date – Redemption Fee Amount.

We refer to this cash payment as the “**Redemption Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$(0.125\% \times \text{Closing Indicative Value of the Security as of such Redemption Valuation Date}).$

We reserve the right from time to time to reduce or waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Index Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Daily Tracking Fee and the Redemption Fee Amount will reduce your Redemption Amount. If the level of the Index does not increase by an amount sufficient to offset the combined negative effect of the Daily Tracking Fee and the Redemption Fee Amount, or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose some or all of your investment upon early redemption.

The Securities may be called by UBS prior to the Maturity Date pursuant to the UBS Call Right. See – UBS Call Right”.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**,” to us via e-mail in the specified form by 5:00 p.m. on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon, or your Redemption Confirmation after 5:00 p.m., on the Index Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to reduce or waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the Redemption Notice rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS Call Right

UBS may at its option redeem all, but not less than all, of the issued and outstanding Securities. To exercise its Call Right, UBS must provide notice to the holders of such Securities (which notice may be provided via press release), not less than 18 calendar days prior to the Call Settlement Date specified by UBS in such notice. If we call the Securities, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS’s exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Index Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Index Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event.”

The “**Call Measurement Period**” means:

- if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is less than \$250,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”; or
- if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is equal to or greater than \$250,000,000, the five (5) Index Business Days from and including the Call Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

For the purpose of determining the Call Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of its Call Right, will equal:

- the Closing Indicative Value as of such Index Business Day, times (ii) the number of Securities outstanding as reported by IFEDSO <Index> on Bloomberg.

The “**Call Valuation Date**” means the date we specify in our notice to holders (which may be provided via press release) of our exercise of our Call Right.

In any notice to holders exercising our Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Call Settlement Amount} = \frac{\text{Closing Indicative Value on last Index}}{\text{Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment upon a call. The negative effect of the Daily Tracking Fee will reduce your final payment. If the level of the Index does not increase by an amount sufficient to offset the negative effect of the Daily Tracking Fee, or if the final Index level is less than the initial Index Closing Level (or the Index level at the time you purchase the Securities, as applicable), you may lose some or all of your investment upon UBS’s exercise of its call right.

Split or Reverse Split of the Securities

We may, at any time in our sole discretion, initiate a split or reverse split of your Securities. If we decide to initiate a split or reverse split, as applicable, we will issue a press release announcing the split or reverse split, and its effective date. The date of such press release shall be deemed to be the “**announcement date**” of the split or the reverse split. The record date for any split or reverse split will be the tenth Business Day after the announcement date, and the effective date will be the next Business Day after the record date.

If the Securities undergo a split or reverse split, we will adjust the Closing Indicative Value and other relevant terms of the Securities accordingly. For example, if the Securities undergo a 4:1 split, every investor who holds a Security via The Depository Trust Company (“**DTC**”) on the relevant record date will, after the split, hold four Securities, and adjustments will be made as described below. The Closing Indicative Value on such record date will be divided by four to reflect the 4:1 split. The adjusted Closing Indicative Value will be rounded to eight decimal places. The split or reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The split will not occur if we exercise our Call Right before it becomes effective.

In the case of a reverse split, the Closing Indicative Value and other relevant terms of the Securities will be adjusted accordingly, and we will determine in our sole discretion the manner in which we will address odd numbers of Securities (commonly referred to as “**partials**”). For example, if the Securities undergo a 1:4 reverse split, every investor who holds four Securities via DTC on the relevant record date will, after the reverse split, hold only one Security and the Closing Indicative Value of the Securities on such record date will be multiplied by four to reflect the 1:4 reverse split. The adjusted Closing Indicative Value will be rounded to eight decimal places. The reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The reverse split will not occur if we exercise our Call Right before it becomes effective.

Holders who own a number of Securities on the record date that is not evenly divisible by the reverse split divisor (which in the case of a 1:4 reverse split, for example, will be 4) will receive the same treatment as all other holders for the maximum number of Securities they hold that is evenly divisible by the reverse split divisor. We will determine in our sole discretion the manner in which we compensate holders for their remaining or “**partial**” Securities when we announce the reverse split, though our current intention is to provide holders with a cash payment for their partials on the 17th Business Day following the announcement date in an amount equal to the appropriate percentage of the Closing Indicative Value of the reverse split-adjusted Securities on the 15th Business Day following the announcement date. For example, in the case of a 1:4 reverse split, a holder who held 23 Securities via DTC on the record date would receive five post-reverse split Securities on the immediately following Business Day, and a cash payment on the 17th Business Day following the announcement date that is equal to 3/4 of the Closing Indicative Value of the reverse split-adjusted Securities on the 15th Business Day following the announcement date.

Security Calculation Agent

UBS Securities LLC will act as the “Security Calculation Agent.” The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, Current Indicative Value (which we also refer to as the “intraday indicative value”), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Index Factor, the Residual Factor, the Index Closing Level, the Daily Tracking Fee, the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, if applicable and the Call Settlement Amount, if any, that we will pay you in the event that UBS calls the Securities, and whether any day is a Business Day or an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you and all other persons having an interest in the Securities, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or upon early redemption or call, on or prior to 12:00 noon on the Index Business Day immediately preceding the Maturity Date, any Redemption Date, or any Call Settlement Date.

All dollar amounts related to determination of the Daily Tracking Fee, the Redemption Amount and Redemption Fee Amount, if any, per security, the Call Settlement Amount, if any, per security, and the Cash Settlement Amount, if any, per security, will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid to any holder of Securities will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a five-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the five-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4, June 5 and June 6, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day, June 6th the fourth Index Business Day and the next Index Business Day after June 6th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a five-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date) or the Calculation Date (in the event that the Final Measurement Period is the Calculation Date), the Index Closing Level for such Redemption Valuation Date, Call Valuation Date or Calculation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to either of the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date) or Calculation Date (in the event that the Final Measurement Period is the Calculation Date) occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date or Calculation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date or Calculation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging”.

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “**absence of trading**” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent, in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, plus
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Index Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or

- every quotation of that kind obtained is objected to within five (5) Index Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Index Business Day after the first Index Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five (5) Index Business Days after that first Index Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Index Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of, Adjustments to or Benchmark Event Affecting the Index or Termination of Our License Agreement with the Index Sponsor; Alteration of Method of Calculation

If (i) the Index Sponsor or the Index Calculation Agent announces that it intends to discontinue, or discontinues, publication of, or otherwise fails to publish, the Index, (ii) a Benchmark Event (as described below) under the EU Benchmarks Regulation or UK Benchmarks Regulation (each as described under "Risk Factors – The Securities are linked to the Index and are subject to certain regulatory risks") occurs with respect to the Index or the Index Sponsor, if applicable, (iii) our license agreement with the Index Sponsor terminates or (iv) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an EU Benchmarks Regulation compliant index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a "**successor index**"), and the Security Calculation Agent approves such index as a successor index, then on and after the date determined by the Security Calculation Agent, the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination, and the amount payable at maturity or upon early redemption or call and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice of the successor index and the date on and after which the Index Closing Level will be determined by reference thereto to be furnished to the trustee, to us and to the holders of the Securities.

If the Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

For purposes of the above, a "**Benchmark Event**" may occur if the EU Benchmarks Regulation and/or UK Benchmarks Regulation, as applicable, applies to this issuance of Securities, and the applicable registration for the Index or Index Sponsor is not effective or has been suspended or withdrawn by the relevant authority with the effect that the use of the Index or the Index Sponsor is not permitted under the EU Benchmarks Regulation or UK Benchmarks Regulation, as applicable.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, including the Current Indicative Value (or “intraday indicative value”), Closing Indicative Value, Index Factor, Residual Factor, Daily Tracking Fee, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity, call, upon early redemption by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

An “**Index Replacement Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after September 14, 2021 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after September 14, 2021 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a Substitute Index, or the value thereof, is changed in a material respect, or if the Index or a successor or Substitute Index is in any other way modified so that the Index Closing Level of the Index or such successor or Substitute Index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor or Substitute Index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor or Substitute Index with reference to the Index or such successor Substitute Index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Daily Tracking Fee, the Redemption Fee Amount, if any, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, upon early redemption, if applicable, the Call Settlement Amount, if any, that we will pay you in the event UBS calls the Securities, and all related payment terms based directly or indirectly on the Index Closing Level calculated by the Security Calculation Agent. Accordingly, if the method of calculating the Index or a successor or Substitute Index is modified so that the level of the Index or such successor index is a fraction of what it would have been if there had been no such modification (e.g., due to a rebasing of the Index), which, in turn, causes the Index Closing Level of the Index or such successor or Substitute Index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor or Substitute Index as if it had not been modified (e.g., as if such rebasing had not occurred). In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — Risks Relating to Creditworthiness, Conflicts of Interest, Hedging Activities and Regulation of UBS — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or upon early redemption or call will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Reissuances or Reopened Issues

We may, at our sole discretion, "reopen" or reissue the Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to "Description of Debt Securities We May Offer — Amounts That We May Issue" in "Medium-Term Notes, Series B" above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities and will have the same CUSIP number and will trade interchangeably with the Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC's settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

23. ETRACS 2x Leveraged US Value Factor TR ETN due February 9, 2051

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

Each of the seven series of Securities offered by the prospectus supplement is separate and independent of each other series of Securities. Apart from the applicable Index, however, all of the terms of each series of Securities are the same. Since each series references a different Index, all calculations and adjustments and related events with respect to each series are independent of calculations and adjustments and related events for each other series of Securities, and we may exercise our call right as well as our right to initiate a split or a reverse split independently for each series. The following discussion therefore applies independently to each series of Securities offered by the prospectus supplement and, except as the context may otherwise require, the defined terms refer separately to each series. References to the “Securities” should be understood as references to a single series of Securities and the defined terms should be understood in reference only to that series of Securities.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 2, 2015 between us and U.S. Bank Trust National Association, as trustee.

Please note that the information about the offering prices and the net proceeds to UBS on the front cover of the prospectus supplement relates only to the initial sale of the Securities. If you have purchased the Securities in a secondary market transaction after the initial sale, information about the price and date of sale to you will be provided in a separate confirmation of sale.

We describe the terms of the Securities in more detail below. The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or upon early redemption or call. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is February 9, 2051, which will be the third Index Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated upon Zero Value Event, you will receive at maturity a cash payment equal to its Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

UBS may call the Securities prior to the Maturity Date pursuant to its Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “Specific Terms of the Securities — UBS’s Call Right” beginning on page S-117.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The Closing Indicative Value represents the dollar value per Security that an investor would receive on any day if it redeemed the Security that day (without giving effect to any Redemption Fee Amount).

The “**Closing Indicative Value**” per Security, will be calculated as follows:

- (a) On the Initial Trade Date, \$25.00 per Security.
- (b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor) – Accrued Fees
- (c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) – Accrued Fees + Measurement Period Cash Amount

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value *is less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Closing Indicative Value for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs, the Closing Indicative Value will be equal to zero on the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event” beginning on page S-118.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged notional investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would approximately equal the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero for the remaining term of the Securities. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be automatically accelerated and mandatorily redeemed and you will lose your entire investment.

The Current Principal Amount per Security, will be calculated as follows:

- (a) From and including the Initial Trade Date to and excluding the first Reset Valuation Date, \$25.00 per Security.
- (b) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:
$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the first Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, such day will not be a valid Reset Valuation Date.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset.

The “**Reset Valuation Date**” means:

- (a) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and

- (b) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The valuation dates are defined below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, it will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the second Wednesday of January, April, July and October of each calendar year during the term of the Securities (other than an Excluded Day, as defined below), subject to adjustment as described under “— Market Disruption Event” beginning on page S-122.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor *times* the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

The “**Residual Factor**” will be calculated as follows:

- (a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- (b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, divided by (b) four.

For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 3/4, on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 2/4, on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 1/4 and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.

- (c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 2.0. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is the Index Closing Level on the Initial Trade Date, as reported by Bloomberg and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg and Reuters on such day; however, if the closing level of the Index as reported on Bloomberg (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) was determined on February 4, 2021 by the Security Calculation Agent. If the closing level of an Index, as reported on Bloomberg and Reuters for any Index Business Day, is manifestly incorrect, the “**Index Closing Level**” for such Index Business Day shall be the closing level of the Index as determined by the Security Calculation Agent. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third

parties or from internal sources or affiliates.

On any calendar day that is not an Index Business Day, the Index Closing level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or, if UBS exercises its Call Right, the Call Measurement Period.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- (a) On the Initial Trade Date, \$25.00.
- (b) On any other calendar day prior to the first day of a Measurement Period:
(Current Principal Amount on the immediately preceding calendar day × Index Factor, calculated using the Intraday Index Value) – Accrued Fees
- (c) From and including the first day of a Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor, calculated using the Intraday Index Value × Residual Factor on the immediately preceding calendar day) – Accrued Fees + Measurement Period Cash Amount, from the immediately preceding calendar day
However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is less than or equal to the Measurement Period Cash Amount from the immediately preceding calendar day, the Current Indicative Value for the remainder of that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (intraday indicative value).

If a Zero Value Event occurs, the Current Indicative Value (intraday indicative value) will be equal to zero for the remainder of the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly.

The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, plus the Daily Tracking Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- (b) On any subsequent calendar day, the Daily Tracking Fee is equal to:
 - (1) (i) 0.95% times (ii) the Current Principal Amount on the immediately preceding calendar day times (iii) the Index Factor on such calendar day times (iv) the Residual Factor on the immediately preceding calendar day, divided by (2) 365.
- (c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly.

The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Financing Fee is equal to:
 - (1) the Accrued Financing Fee as of the immediately preceding calendar day, plus (2) the Daily Financing Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- (d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Daily Financing Fee is equal to:
 - (1) (i) the Financing Rate on such calendar day *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 360.
- (c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.
- (d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Index. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 0.95% and (b) the London interbank offered rate (ICE LIBOR) for three-month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Security Calculation Agent) (“**LIBOR**”) (or any successor base rate, as described below), as of 11:00 a.m., London time, on the immediately preceding London Business Day. The minimum value of the three-month U.S. Dollar LIBOR rate (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 0.95%

For example, 0.21775% was the three-month U.S. Dollar LIBOR rate on January 21, 2021, which was a London Business Day. The Financing Rate on January 21, 2021 would have been equal to 0.95% + 0.21775%, or 1.16775%.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued or is no longer representative of the underlying market or economic reality, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry-accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- (a) \$0.00 on any calendar day, to but excluding the first day of a Measurement Period.
- (b) On the first day of a one-day Measurement Period:

At the close of trading on such Index Business Day, (Current Principal Amount on the immediately preceding calendar day \times Index Factor, on such Index Business Day).

(c) From and including the first day of a four-day Measurement Period:

(i) At the close of trading on each Index Business Day during the Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount on the calendar day immediately preceding the first day of such Measurement Period \times 0.25 \times Index Factor, on such Index Business Day); and

(ii) On any calendar day during the Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.

(d) On any calendar day after the last Index Business Day of a Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

Notwithstanding the foregoing, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is *less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, then the Measurement Period Cash Amount for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash amount from the immediately preceding calendar day.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable portion of the notional financing amount will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of a four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- (a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$500,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$500,000,000, the four Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which for each series of Securities is the entity set forth below:

Title of Securities

ETRACS 2x Leveraged US Dividend Factor TR ETN
ETRACS 2x Leveraged US Growth Factor TR ETN
ETRACS 2x Leveraged US Size Factor TR ETN
ETRACS 2x Leveraged US Value Factor TR ETN
ETRACS 2x Leveraged MSCI US Minimum Volatility Factor TR ETN
ETRACS 2x Leveraged MSCI US Momentum Factor TR ETN
ETRACS 2x Leveraged MSCI US Quality Factor TR ETN

Index Calculation Agent

S&P Dow Jones Indices
FTSE Russell
FTSE Russell
FTSE Russell
MSCI, Inc.
MSCI, Inc.
MSCI, Inc.

The “**Calculation Date**” means February 1, 2051, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustment.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return of each series of Securities is based upon the performance of the applicable Index set forth on the cover page of the prospectus supplement. Each Index is designed to track the performance of a sector of the U.S. equity market and to reflect an investing style.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event”, you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon and a confirmation of redemption by no later than 5:00 p.m. on the same Index Business Day. You must request that we redeem a minimum of 50,000 Securities, although we reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the notice of redemption rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities; however, there can be no assurance that they can or will do so.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if we have issued a call notice, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event”.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date}).$$

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}.$$

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Index Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

The Securities may be called by UBS prior to the Maturity Date pursuant to its Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon, or your Redemption Confirmation after 5:00 p.m., on the Index Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the Redemption Notice rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS’s Call Right

UBS may at its option redeem all, but not less than all, of the issued and outstanding Securities of any series. To exercise its Call Right, UBS must provide notice to the holders of such Securities (which may be provided via press release) not less than 18 calendar days prior to the Call Settlement Date specified by UBS in such notice. If we call the Securities, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS’s exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Index Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Index Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event”.

The “**Call Measurement Period**” means:

- (a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is less than \$500,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”; and
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is equal to or greater than \$500,000,000, the four Index Business Days from and including the Call Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of its Call Right will equal:

- (i) The Closing Indicative Value as of such Index Business Day times (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Call Valuation Date**” means the date we specify in our notice to holders (which may be provided via press release) of our exercise of our Call Right.

In any notice to holders exercising our Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment if we exercise our Call Right. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

In addition, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

For each series of Securities, a Zero Value Event represents the first instance when the Current Indicative Value (intraday indicative value) or the Closing Indicative Value is less than or equal to zero (other than on an Excluded Day, as defined below). It will have the effect of permanently resetting the value of your Securities to zero and accelerating the Securities. You will not benefit from any future exposure to the applicable Index after the occurrence of a Zero Value Event.

A Zero Value Event can occur only if a Permanent Deleveraging Event occurs and the Current Indicative Value (intraday indicative value) or the Closing Indicative Value declines to zero before the leverage of your Securities is reset to 1.0 at the close of trading on the Index Business Day following such event (or if such event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, the second Index Business Day following such event), as described under “Permanent Deleveraging Valuation Dates” above.

A “**Zero Value Event**” occurs if the Current Indicative Value (intraday indicative value) or the Closing Indicative Value on any Index Business Day (other than an Excluded Day, as defined below) is less than or equal to zero. From immediately after the Zero Value Event and on all future calendar days, the Current Indicative Value (intraday indicative value) and the Closing Indicative Value will be set equal to zero.

As used above, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on or after which a Zero Value Event has already occurred, and (iii) any calendar day after the last day of an applicable Measurement Period.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event; provided that the failure to do so shall not affect the automatic acceleration and redemption of the Securities. The Securities will be suspended from trading intraday shortly after the event occurs and will likely not be open for trading again on NYSE Arca.

You will lose your entire investment upon the occurrence of a Zero Value Event.

In addition, we may call the Securities prior to the Maturity Date pursuant to our Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day, as used below) decreases by 20% or more from the previous Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, and (ix) any calendar day on or after which a Zero Value Event has occurred.

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”; and
- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0 over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 2.0 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities than it would have had before the occurrence of the Permanent Deleveraging Event. If such an event were to occur, it most likely would occur only following a Loss Rebalancing Event and prior to the completion of the associated leverage reset to 2.0, which would generally occur at the end of the Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred or, if the Loss Rebalancing Event occurs 3:15 p.m. on an Index Business Day, at the end of the second Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred.

A “**Permanent Deleveraging Event**” occurs if, at any time on an Index Business Day (other than an Excluded Day, as defined below), the Intraday Index Value decreases by 40% or more from the Last Reset Index Closing Level. If a Permanent Deleveraging Event occurs, the Current Principal Amount of the Securities will be reset over two Index Business Days.

As used above, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) any day on or after which a Zero Value Event occurs, (iv) the day which is two Index Business Days prior to the first day of a Measurement Period, if a Permanent Deleveraging Event occurs after 3:15 p.m. on such day, and (v) any calendar day from and including the Index Business Day immediately preceding the first day of a Measurement Period.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- (a) The “**First Permanent Deleveraging Valuation Date**” means:
 - (i) any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “— Market Disruption Event”; or
 - (ii) if a Permanent Deleveraging Event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to approximately 2.0 at the close of trading on the First Permanent Deleveraging Valuation Date.

- (b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Split or Reverse Split of the Securities

We may, at any time in our sole discretion, initiate a split or reverse split of your Securities. If we decide to initiate a split or reverse split, as applicable, we will issue a press release announcing the split or reverse split and its effective date. The date of such press release shall be deemed to be the “**announcement date**” of the split or the reverse split, the record date for any split or reverse split will be the tenth Business Day after the announcement date, and the effective date will be the next Business Day after the record date.

If the Securities undergo a split or reverse split, we will adjust the Current Principal Amount, Closing Indicative Value, Current Indicative Value, Accrued Fees, Measurement Period Cash Amount and other relevant terms of the Securities accordingly. For example, if the Securities undergo a 4:1 split, every investor who holds a Security via The Depository Trust Company (“**DTC**”) on the relevant record date will, after the split, hold four Securities, and adjustments will be made as described below. The Current Principal Amount on such record date will be *divided by* four to reflect the 4:1 split. The adjusted Current Principal Amount will be rounded to eight decimal places. The split or reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The split will not occur if we exercise our Call Right before it becomes effective.

In the case of a reverse split, the Current Principal Amount and other relevant terms of the Securities will be adjusted accordingly and we will determine in our sole discretion the manner in which we will address odd numbers of Securities (commonly referred to as “**partials**”). For example, if the Securities undergo a 1:4 reverse split, every investor who holds four Securities via DTC on the relevant record date will, after the reverse split, hold only one Security and the Current Principal Amount of the Securities on such record date will be multiplied by four to reflect the 1:4 reverse split. The adjusted Current Principal Amount will be rounded to eight decimal places. The reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The reverse split will not occur if we exercise our Call Right before it becomes effective.

Holder who own a number of Securities on the record date that is not evenly divisible by the reverse split divisor (which in the case of a 1:4 reverse split, for example, will be 4) will receive the same treatment as all other holders for the maximum number of Securities they hold that is evenly divisible by the reverse split divisor. We will determine in our sole discretion the manner in which we compensate holders for their remaining or “**partial**” Securities when we announce the reverse split, though our current intention is to provide holders with a cash payment for their partials on the 17th Business Day following the announcement date in an amount equal to the appropriate percentage of the Closing Indicative Value of the reverse split-adjusted Securities on the 15th Business Day following the announcement date. For example, in the case of a 1:4 reverse split, a holder who held 23 Securities via DTC on the record date would receive five post-reverse split Securities on the immediately following Business Day, and a cash payment on the 17th Business Day following the announcement date that is equal to 3/4 of the Current Principal Amount of the reverse split-adjusted Securities on the 15th Business Day following the announcement date.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Value (which we also refer to as the intraday indicative value), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the LIBOR base rate), the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, that we will pay you if we call the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. If any Intraday Index Value as published by Bloomberg on any Index Business Day is manifestly incorrect, the Security Calculation Agent may base its determination of whether a Loss Rebalancing Event, Permanent Deleveraging Event or Zero Value Event shall have occurred on such Index Business Day on its own determination of such Intraday Index Value. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Securities, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or upon early redemption or call, on or prior to 12:00 noon on the Index Business Day immediately preceding the Maturity Date, any Redemption Date or any Call Settlement Date.

All dollar amounts related to determination of the Accrued Fees, the Current Principal Amount, and any Redemption Amount, Redemption Fee Amount, Call Settlement Amount or Cash Settlement Amount per Security will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid to any holder of Securities will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to either of the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging.”

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Index Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Index Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Index Business Day after the first Index Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Index Business Days after that first Index Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Index Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreements with the Index Sponsors; Alteration of Method of Calculation

If (i) an Index Sponsor or the Index Calculation Agent announces that it intends to discontinue, or discontinues, publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), and the Security Calculation Agent approves such index as a successor index, then on and after the date determined by the Security Calculation Agent, the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination and the amount payable at maturity or upon early redemption or call and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice of the successor index and the date on and after which the Index Closing Level will be determined by reference thereto be furnished to the trustee, to us and to the holders of the Securities.

If an Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, Current Principal Amount, Current Indicative Value (intraday indicative value), Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity or upon early redemption or call by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after February 4, 2021 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after February 4, 2021 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities, or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a Substitute Index, or the value thereof, is changed in a material respect, or if the Index or a successor or Substitute Index is in any other way modified so that the Index Closing Level of the Index or such successor or Substitute Index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor or Substitute Index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor or Substitute Index with reference to the Index or such successor or Substitute Index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Last Reset Index Closing Level, the Accrued Fees, and any Redemption Amount, Redemption Fee Amount, Cash Settlement Amount or Call Settlement Amount, and all related payment terms based directly or indirectly on the Index Closing Level calculated by the Security Calculation Agent. Accordingly, if the method of calculating the Index or a successor or Substitute Index is modified so that the level of the Index or such successor or Substitute Index is a fraction or multiple of what it would have been if there had been no such modification (*e.g.*, due to a rebasing of the Index), which, in turn, causes the Index Closing Level of the Index or such successor or Substitute Index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor or Substitute Index as if it had not been modified (*e.g.*, as if such rebasing had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — Risks Relating to Creditworthiness, Conflicts of Interest, Hedging Activities and Regulation of UBS — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or upon early redemption or call will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue any series of Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B” above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities of the same series and will have the same CUSIP number and will trade interchangeably with such Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

24. ETRACS 2x Leveraged US Growth Factor TR ETN due February 9, 2051

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

Each of the seven series of Securities offered by the prospectus supplement is separate and independent of each other series of Securities. Apart from the applicable Index, however, all of the terms of each series of Securities are the same. Since each series references a different Index, all calculations and adjustments and related events with respect to each series are independent of calculations and adjustments and related events for each other series of Securities, and we may exercise our call right as well as our right to initiate a split or a reverse split independently for each series. The following discussion therefore applies independently to each series of Securities offered by the prospectus supplement and, except as the context may otherwise require, the defined terms refer separately to each series. References to the “Securities” should be understood as references to a single series of Securities and the defined terms should be understood in reference only to that series of Securities.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 2, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below. The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or upon early redemption or call. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is February 9, 2051, which will be the third Index Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated upon Zero Value Event, you will receive at maturity a cash payment equal to its Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

UBS may call the Securities prior to the Maturity Date pursuant to its Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “Specific Terms of the Securities — UBS’s Call Right”.

The “Stated Principal Amount” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The Closing Indicative Value represents the dollar value per Security that an investor would receive on any day if it redeemed the Security that day (without giving effect to any Redemption Fee Amount).

The “Closing Indicative Value” per Security, will be calculated as follows:

- (a) On the Initial Trade Date, \$25.00 per Security.
- (b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor) – Accrued Fees
- (c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) – Accrued Fees + Measurement Period Cash Amount
However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value *is less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Closing Indicative Value for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs, the Closing Indicative Value will be equal to zero on the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged notional investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would approximately equal the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero for the remaining term of the Securities. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be automatically accelerated and mandatorily redeemed and you will lose your entire investment.

The Current Principal Amount per Security, will be calculated as follows:

- (a) From and including the Initial Trade Date to and excluding the first Reset Valuation Date, \$25.00 per Security.
- (b) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:
$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$
The Current Principal Amount will not change until the first Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, such day will not be a valid Reset Valuation Date.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset. The “**Reset Valuation Date**” means:

- (a) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and
- (b) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The valuation dates are defined below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, it will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the second Wednesday of January, April, July and October of each calendar year during the term of the Securities (other than an Excluded Day, as defined below), subject to adjustment as described under “— Market Disruption Event”.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor *times* the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

The “**Residual Factor**” will be calculated as follows:

- (a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- (b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, *divided by* (b) four.

For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 3/4, on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 2/4, on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 1/4 and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.

- (c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 2.0. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is the Index Closing Level on the Initial Trade Date, as reported by Bloomberg and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg and Reuters on such day; however, if the closing level of the Index as reported on Bloomberg (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) was determined on February 4, 2021 by the Security Calculation Agent. If the closing level of an Index, as reported on Bloomberg and Reuters for any Index Business Day, is manifestly incorrect, the “**Index Closing Level**” for such Index Business Day shall be the closing level of the Index as determined by the Security Calculation Agent. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates.

On any calendar day that is not an Index Business Day, the Index Closing level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or, if UBS exercises its Call Right, the Call Measurement Period.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- (a) On the Initial Trade Date, \$25.00.
- (b) On any other calendar day prior to the first day of a Measurement Period:

(Current Principal Amount on the immediately preceding calendar day × Index Factor, calculated using the Intraday Index Value) – Accrued Fees

- (c) From and including the first day of a Measurement Period, an amount per Security equal to:

(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor, calculated using the Intraday Index Value × Residual Factor on the immediately preceding calendar day) – Accrued Fees + Measurement Period Cash Amount, from the immediately preceding calendar day

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value *is less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Current Indicative Value for the remainder of that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.

- (d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (intraday indicative value).

If a Zero Value Event occurs, the Current Indicative Value (intraday indicative value) will be equal to zero for the remainder of the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly. The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, *plus* the Daily Tracking Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- (b) On any subsequent calendar day, the Daily Tracking Fee is equal to:
- (1) (i) 0.95% *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Index Factor on such calendar day *times* (iv) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 365.
- (c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly. The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Financing Fee is equal to:
- (1) the Accrued Financing Fee as of the immediately preceding calendar day, *plus* (2) the Daily Financing Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- (d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Daily Financing Fee is equal to:
 - (1) (i) the Financing Rate on such calendar day *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 360.
- (c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.
- (d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Index. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 0.95% and (b) the London interbank offered rate (ICE LIBOR) for three-month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Security Calculation Agent) (“**LIBOR**”) (or any successor base rate, as described below), as of 11:00 a.m., London time, on the immediately preceding London Business Day. The minimum value of the three-month U.S. Dollar LIBOR rate (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 0.95%

For example, 0.21775% was the three-month U.S. Dollar LIBOR rate on January 21, 2021, which was a London Business Day. The Financing Rate on January 21, 2021 would have been equal to 0.95% + 0.21775%, or 1.16775%.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued or is no longer representative of the underlying market or economic reality, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry-accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- (a) \$0.00 on any calendar day, to but excluding the first day of a Measurement Period.
- (b) On the first day of a one-day Measurement Period:

At the close of trading on such Index Business Day, (Current Principal Amount on the immediately preceding calendar day × Index Factor, on such Index Business Day).
- (c) From and including the first day of a four-day Measurement Period:
 - (i) At the close of trading on each Index Business Day during the Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount on the calendar day immediately preceding the first day of such Measurement Period × 0.25 × Index Factor, on such Index Business Day); and
 - (ii) On any calendar day during the Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.

- (d) On any calendar day after the last Index Business Day of a Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

Notwithstanding the foregoing, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is *less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, then the Measurement Period Cash Amount for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash amount from the immediately preceding calendar day.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable portion of the notional financing amount will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of a four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- (a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$500,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$500,000,000, the four Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which for each series of Securities is the entity set forth below:

<u>Title of Securities</u>	<u>Index Calculation Agent</u>
ETRACS 2x Leveraged US Dividend Factor TR ETN	S&P Dow Jones Indices
ETRACS 2x Leveraged US Growth Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged US Size Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged US Value Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged MSCI US Minimum Volatility Factor TR ETN	MSCI, Inc.
ETRACS 2x Leveraged MSCI US Momentum Factor TR ETN	MSCI, Inc.
ETRACS 2x Leveraged MSCI US Quality Factor TR ETN	MSCI, Inc.

The “**Calculation Date**” means February 1, 2051, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustment.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return of each series of Securities is based upon the performance of the applicable Index set forth on the cover page of the prospectus supplement. Each Index is designed to track the performance of a sector of the U.S. equity market and to reflect an investing style. We refer to the securities included in each Index as the “Index Constituent Securities” for such Index.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event”, you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon and a confirmation of redemption by no later than 5:00 p.m. on the same Index Business Day. You must request that we redeem a minimum of 50,000 Securities, although we reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the notice of redemption rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities; however, there can be no assurance that they can or will do so.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if we have issued a call notice, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event”.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date})$.

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

Closing Indicative Value as of the Redemption Valuation Date – Redemption Fee Amount.

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Index Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

The Securities may be called by UBS prior to the Maturity Date pursuant to its Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption which is attached;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon, or your Redemption Confirmation after 5:00 p.m., on the Index Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the Redemption Notice rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS’s Call Right

UBS may at its option redeem all, but not less than all, of the issued and outstanding Securities of any series. To exercise its Call Right, UBS must provide notice to the holders of such Securities (which may be provided via press release) not less than 18 calendar days prior to the Call Settlement Date specified by UBS in such notice. If we call the Securities, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS’s exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Index Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Index Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event”.

The “**Call Measurement Period**” means:

- if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is less than \$500,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”; and
- if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is equal to or greater than \$500,000,000, the four Index Business Days from and including the Call Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of its Call Right will equal:

- The Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Call Valuation Date**” means the date we specify in our notice to holders (which may be provided via press release) of our exercise of our Call Right.

In any notice to holders exercising our Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment if we exercise our Call Right. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

In addition, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

For each series of Securities, a Zero Value Event represents the first instance when the Current Indicative Value (intraday indicative value) or the Closing Indicative Value is less than or equal to zero (other than on an Excluded Day, as defined below). It will have the effect of permanently resetting the value of your Securities to zero and accelerating the Securities. You will not benefit from any future exposure to the applicable Index after the occurrence of a Zero Value Event.

A Zero Value Event can occur only if a Permanent Deleveraging Event occurs and the Current Indicative Value (intraday indicative value) or the Closing Indicative Value declines to zero before the leverage of your Securities is reset to 1.0 at the close of trading on the Index Business Day following such event (or if such event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, the second Index Business Day following such event), as described under “Permanent Deleveraging Valuation Dates” above.

A “**Zero Value Event**” occurs if the Current Indicative Value (intraday indicative value) or the Closing Indicative Value on any Index Business Day (other than an Excluded Day, as defined below) is less than or equal to zero. From immediately after the Zero Value Event and on all future calendar days, the Current Indicative Value (intraday indicative value) and the Closing Indicative Value will be set equal to zero.

As used above, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on or after which a Zero Value Event has already occurred, and (iii) any calendar day after the last day of an applicable Measurement Period.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event; provided that the failure to do so shall not affect the automatic acceleration and redemption of the Securities. The Securities will be suspended from trading intraday shortly after the event occurs and will likely not be open for trading again on NYSE Arca.

You will lose your entire investment upon the occurrence of a Zero Value Event.

In addition, we may call the Securities prior to the Maturity Date pursuant to our Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “Loss Rebalancing Event” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day, as used below) decreases by 20% or more from the previous Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, and (ix) any calendar day on or after which a Zero Value Event has occurred.

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”; and
- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0 over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 2.0 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities than it would have had before the occurrence of the Permanent Deleveraging Event. If such an event were to occur, it most likely would occur only following a Loss Rebalancing Event and prior to the completion of the associated leverage reset to 2.0, which would generally occur at the end of the Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred or, if the Loss Rebalancing Event occurs 3:15 p.m. on an Index Business Day, at the end of the second Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred.

A “**Permanent Deleveraging Event**” occurs if, at any time on an Index Business Day (other than an Excluded Day, as defined below), the Intraday Index Value decreases by 40% or more from the Last Reset Index Closing Level. If a Permanent Deleveraging Event occurs, the Current Principal Amount of the Securities will be reset over two Index Business Days.

As used above, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) any day on or after which a Zero Value Event occurs, (iv) the day which is two Index Business Days prior to the first day of a Measurement Period, if a Permanent Deleveraging Event occurs after 3:15 p.m. on such day, and (v) any calendar day from and including the Index Business Day immediately preceding the first day of a Measurement Period.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- (a) The “**First Permanent Deleveraging Valuation Date**” means:
 - (i) any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “— Market Disruption Event”; or
 - (ii) if a Permanent Deleveraging Event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to approximately 2.0 at the close of trading on the First Permanent Deleveraging Valuation Date.

- (b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Split or Reverse Split of the Securities

We may, at any time in our sole discretion, initiate a split or reverse split of your Securities. If we decide to initiate a split or reverse split, as applicable, we will issue a press release announcing the split or reverse split and its effective date. The date of such press release shall be deemed to be the “**announcement date**” of the split or the reverse split, the record date for any split or reverse split will be the tenth Business Day after the announcement date, and the effective date will be the next Business Day after the record date.

If the Securities undergo a split or reverse split, we will adjust the Current Principal Amount, Closing Indicative Value, Current Indicative Value, Accrued Fees, Measurement Period Cash Amount and other relevant terms of the Securities accordingly. For example, if the Securities undergo a 4:1 split, every investor who holds a Security via The Depository Trust Company (“DTC”) on the relevant record date will, after the split, hold four Securities, and adjustments will be made as described below. The Current Principal Amount on such record date will be *divided by* four to reflect the 4:1 split. The adjusted Current Principal Amount will be rounded to eight decimal places. The split or reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The split will not occur if we exercise our Call Right before it becomes effective.

In the case of a reverse split, the Current Principal Amount and other relevant terms of the Securities will be adjusted accordingly and we will determine in our sole discretion the manner in which we will address odd numbers of Securities (commonly referred to as “partials”). For example, if the Securities undergo a 1:4 reverse split, every investor who holds four Securities via DTC on the relevant record date will, after the reverse split, hold only one Security and the Current Principal Amount of the Securities on such record date will be multiplied by four to reflect the 1:4 reverse split. The adjusted Current Principal Amount will be rounded to eight decimal places. The reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The reverse split will not occur if we exercise our Call Right before it becomes effective.

Holder who own a number of Securities on the record date that is not evenly divisible by the reverse split divisor (which in the case of a 1:4 reverse split, for example, will be 4) will receive the same treatment as all other holders for the maximum number of Securities they hold that is evenly divisible by the reverse split divisor. We will determine in our sole discretion the manner in which we compensate holders for their remaining or “partial” Securities when we announce the reverse split, though our current intention is to provide holders with a cash payment for their partials on the 17th Business Day following the announcement date in an amount equal to the appropriate percentage of the Closing Indicative Value of the reverse split-adjusted Securities on the 15th Business Day following the announcement date. For example, in the case of a 1:4 reverse split, a holder who held 23 Securities via DTC on the record date would receive five post-reverse split Securities on the immediately following Business Day, and a cash payment on the 17th Business Day following the announcement date that is equal to 3/4 of the Current Principal Amount of the reverse split-adjusted Securities on the 15th Business Day following the announcement date.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal

Amount, Current Indicative Value (which we also refer to as the intraday indicative value), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the LIBOR base rate), the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, that we will pay you if we call the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. If any Intraday Index Value as published by Bloomberg on any Index Business Day is manifestly incorrect, the Security Calculation Agent may base its determination of whether a Loss Rebalancing Event, Permanent Deleveraging Event or Zero Value Event shall have occurred on such Index Business Day on its own determination of such Intraday Index Value. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Securities, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or upon early redemption or call, on or prior to 12:00 noon on the Index Business Day immediately preceding the Maturity Date, any Redemption Date or any Call Settlement Date.

All dollar amounts related to determination of the Accrued Fees, the Current Principal Amount, and any Redemption Amount, Redemption Fee Amount, Call Settlement Amount or Cash Settlement Amount per Security will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid to any holder of Securities will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to either of the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging.”

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Index Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Index Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Index Business Day after the first Index Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Index Business Days after that first Index Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Index Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreements with the Index Sponsors; Alteration of Method of Calculation

If (i) an Index Sponsor or the Index Calculation Agent announces that it intends to discontinue, or discontinues, publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), and the Security Calculation Agent approves such index as a successor index, then on and after the date determined by the Security Calculation Agent, the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination and the amount payable at maturity or upon early redemption or call and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice of the successor index and the date on and after which the Index Closing Level will be determined by reference thereto be furnished to the trustee, to us and to the holders of the Securities.

If an Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, Current Principal Amount, Current Indicative Value (intraday indicative value), Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity or upon early redemption or call by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after February 4, 2021 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after February 4, 2021 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities, or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a Substitute Index, or the value thereof, is changed in a material respect, or if the Index or a successor or Substitute Index is in any other way modified so that the Index Closing Level of the Index or such successor or Substitute Index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor or Substitute Index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor or Substitute Index with reference to the Index or such successor or Substitute Index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Last Reset Index Closing Level, the Accrued Fees, and any Redemption Amount, Redemption Fee Amount, Cash Settlement Amount or Call Settlement Amount, and all related payment terms based directly or indirectly on the Index Closing Level calculated by the Security Calculation Agent. Accordingly, if the method of calculating the Index or a successor or Substitute Index is modified so that the level of the Index or such successor or Substitute Index is a fraction or multiple of what it would have been if there had been no such modification (*e.g.*, due to a rebasing of the Index), which, in turn, causes the Index Closing Level of the Index or such successor or Substitute Index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor or Substitute Index as if it had not been modified (*e.g.*, as if such rebasing had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — Risks Relating to Creditworthiness, Conflicts of Interest, Hedging Activities and Regulation of UBS — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or upon early redemption or call will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue any series of Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B” above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities of the same series and will have the same CUSIP number and will trade interchangeably with such Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

25. ETRACS 2x Leveraged US Size Factor TR ETN due February 9, 2051

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

Each of the seven series of Securities offered by the prospectus supplement is separate and independent of each other series of Securities. Apart from the applicable Index, however, all of the terms of each series of Securities are the same. Since each series references a different Index, all calculations and adjustments and related events with respect to each series are independent of calculations and adjustments and related events for each other series of Securities, and we may exercise our call right as well as our right to initiate a split or a reverse split independently for each series. The following discussion therefore applies independently to each series of Securities offered by the prospectus supplement and, except as the context may otherwise require, the defined terms refer separately to each series. References to the “Securities” should be understood as references to a single series of Securities and the defined terms should be understood in reference only to that series of Securities.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 2, 2015 between us and U.S. Bank Trust National Association, as trustee.

Please note that the information about the offering prices and the net proceeds to UBS on the front cover of the prospectus supplement relates only to the initial sale of the Securities. If you have purchased the Securities in a secondary market transaction after the initial sale, information about the price and date of sale to you will be provided in a separate confirmation of sale.

We describe the terms of the Securities in more detail below. The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or upon early redemption or call. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is February 9, 2051, which will be the third Index Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated upon Zero Value Event, you will receive at maturity a cash payment equal to its Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

UBS may call the Securities prior to the Maturity Date pursuant to its Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “Specific Terms of the Securities — UBS’s Call Right”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The Closing Indicative Value represents the dollar value per Security that an investor would receive on any day if it redeemed the Security that day (without giving effect to any Redemption Fee Amount).

The “**Closing Indicative Value**” per Security, will be calculated as follows:

- (a) On the Initial Trade Date, \$25.00 per Security.
- (b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor) – Accrued Fees
- (c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) – Accrued Fees + Measurement Period Cash Amount

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value *is less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Closing Indicative Value for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs, the Closing Indicative Value will be equal to zero on the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged notional investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would approximately equal the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero for the remaining term of the Securities. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be automatically accelerated and mandatorily redeemed and you will lose your entire investment.

The Current Principal Amount per Security, will be calculated as follows:

- (a) From and including the Initial Trade Date to and excluding the first Reset Valuation Date, \$25.00 per Security.
- (b) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:
$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the first Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, such day will not be a valid Reset Valuation Date.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset. The “**Reset Valuation Date**” means:

- (a) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and
- (b) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The valuation dates are defined below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, it will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the second Wednesday of January, April, July and October of each calendar year during the term of the Securities (other than an Excluded Day, as defined below), subject to adjustment as described under “— Market Disruption Event”.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor *times* the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

The “**Residual Factor**” will be calculated as follows:

- (a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- (b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, *divided by* (b) four.

For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 3/4, on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 2/4, on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 1/4 and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.

- (c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 2.0. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is the Index Closing Level on the Initial Trade Date, as reported by Bloomberg and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg and Reuters on such day; however, if the closing level of the Index as reported on Bloomberg (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) was determined on February 4, 2021 by the Security Calculation Agent. If the closing level of an Index, as reported on Bloomberg and Reuters for any Index Business Day, is manifestly incorrect, the “**Index Closing Level**” for such Index Business Day shall be the closing level of the Index as determined by the Security Calculation Agent. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates.

On any calendar day that is not an Index Business Day, the Index Closing level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or, if UBS exercises its Call Right, the Call Measurement Period.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- (a) On the Initial Trade Date, \$25.00.
- (b) On any other calendar day prior to the first day of a Measurement Period:
(Current Principal Amount on the immediately preceding calendar day × Index Factor, calculated using the Intraday Index Value) – Accrued Fees
- (c) From and including the first day of a Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor, calculated using the Intraday Index Value × Residual Factor on the immediately preceding calendar day) – Accrued Fees + Measurement Period Cash Amount, from the immediately preceding calendar day

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is less than or equal to the Measurement Period Cash Amount from the immediately preceding calendar day, the Current Indicative Value for the remainder of that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (intraday indicative value).

If a Zero Value Event occurs, the Current Indicative Value (intraday indicative value) will be equal to zero for the remainder of the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly. The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, *plus* the Daily Tracking Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- (b) On any subsequent calendar day, the Daily Tracking Fee is equal to:

(1) (i) 0.95% *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Index Factor on such calendar day *times* (iv) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 365.

(c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly. The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Financing Fee is equal to:
 - (1) the Accrued Financing Fee as of the immediately preceding calendar day, *plus* (2) the Daily Financing Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- (d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Daily Financing Fee is equal to:
 - (1) (i) the Financing Rate on such calendar day *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 360.
- (c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.
- (d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Index. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 0.95% and (b) the London interbank offered rate (ICE LIBOR) for three- month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Security Calculation Agent) (“**LIBOR**”) (or any successor base rate, as described below), as of 11:00 a.m., London time, on the immediately preceding London Business Day. The minimum value of the three-month U.S. Dollar LIBOR rate (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 0.95%

For example, 0.21775% was the three-month U.S. Dollar LIBOR rate on January 21, 2021, which was a London Business Day. The Financing Rate on January 21, 2021 would have been equal to 0.95% + 0.21775%, or 1.16775%.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued or is no longer representative of the underlying market or economic reality, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry- accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- (a) \$0.00 on any calendar day, to but excluding the first day of a Measurement Period.
- (b) On the first day of a one-day Measurement Period:
At the close of trading on such Index Business Day, (Current Principal Amount on the immediately preceding calendar day × Index Factor, on such Index Business Day).
- (c) From and including the first day of a four-day Measurement Period:
 - (i) At the close of trading on each Index Business Day during the Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount on the calendar day immediately preceding the first day of such Measurement Period × 0.25 × Index Factor, on such Index Business Day); and
 - (ii) On any calendar day during the Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.
- (d) On any calendar day after the last Index Business Day of a Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

Notwithstanding the foregoing, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is *less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, then the Measurement Period Cash Amount for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash amount from the immediately preceding calendar day.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable portion of the notional financing amount will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of a four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- (a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$500,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$500,000,000, the four Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which for each series of Securities is the entity set forth below:

<u>Title of Securities</u>	<u>Index Calculation Agent</u>
ETRACS 2x Leveraged US Dividend Factor TR ETN	S&P Dow Jones Indices
ETRACS 2x Leveraged US Growth Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged US Size Factor TR ETN	FTSE Russell

Title of Securities

ETRACS 2x Leveraged US Value Factor TR ETN
 ETRACS 2x Leveraged MSCI US Minimum Volatility Factor TR ETN
 ETRACS 2x Leveraged MSCI US Momentum Factor TR ETN
 ETRACS 2x Leveraged MSCI US Quality Factor TR ETN

Index Calculation Agent

FTSE Russell
 MSCI, Inc.
 MSCI, Inc.
 MSCI, Inc.

The “**Calculation Date**” means February 1, 2051, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustment.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return of each series of Securities is based upon the performance of the applicable Index set forth on the cover page of the prospectus supplement. Each Index is designed to track the performance of a sector of the U.S. equity market and to reflect an investing style. We refer to the securities included in each Index as the “Index Constituent Securities” for such Index.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event”, you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon and a confirmation of redemption by no later than 5:00 p.m. on the same Index Business Day. You must request that we redeem a minimum of 50,000 Securities, although we reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the notice of redemption rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities; however, there can be no assurance that they can or will do so.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if we have issued a call notice, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event”.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date}).$$

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}.$$

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Index Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

The Securities may be called by UBS prior to the Maturity Date pursuant to its Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon, or your Redemption Confirmation after 5:00 p.m., on the Index Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the Redemption Notice rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS’s Call Right

UBS may at its option redeem all, but not less than all, of the issued and outstanding Securities of any series. To exercise its Call Right, UBS must provide notice to the holders of such Securities (which may be provided via press release) not less than 18 calendar days prior to the Call Settlement Date specified by UBS in such notice. If we call the Securities, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS’s exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Index Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Index Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event”.

The “**Call Measurement Period**” means:

- (a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is less than \$500,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”; and
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is equal to or greater than \$500,000,000, the four Index Business Days from and including the Call Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of its Call Right will equal:

- (i) The Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Call Valuation Date**” means the date we specify in our notice to holders (which may be provided via press release) of our exercise of our Call Right.

In any notice to holders exercising our Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment if we exercise our Call Right. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

In addition, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

For each series of Securities, a Zero Value Event represents the first instance when the Current Indicative Value (intraday indicative value) or the Closing Indicative Value is less than or equal to zero (other than on an Excluded Day, as defined below). It will have the effect of permanently resetting the value of your Securities to zero and accelerating the Securities. You will not benefit from any future exposure to the applicable Index after the occurrence of a Zero Value Event.

A Zero Value Event can occur only if a Permanent Deleveraging Event occurs and the Current Indicative Value (intraday indicative value) or the Closing Indicative Value declines to zero before the leverage of your Securities is reset to 1.0 at the close of trading on the Index Business Day following such event (or if such event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, the second Index Business Day following such event), as described under “Permanent Deleveraging Valuation Dates” above.

A “**Zero Value Event**” occurs if the Current Indicative Value (intraday indicative value) or the Closing Indicative Value on any Index Business Day (other than an Excluded Day, as defined below) is less than or equal to zero. From immediately after the Zero Value Event and on all future calendar days, the Current Indicative Value (intraday indicative value) and the Closing Indicative Value will be set equal to zero.

As used above, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on or after which a Zero Value Event has already occurred, and (iii) any calendar day after the last day of an applicable Measurement Period.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event; provided that the failure to do so shall not affect the automatic acceleration and redemption of the Securities. The Securities will be suspended from trading intraday shortly after the event occurs and will likely not be open for trading again on NYSE Arca.

You will lose your entire investment upon the occurrence of a Zero Value Event.

In addition, we may call the Securities prior to the Maturity Date pursuant to our Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day, as used below) decreases by 20% or more from the previous Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, and (ix) any calendar day on or after which a Zero Value Event has occurred.

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”; and
- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0 over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 2.0 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities than it would have had before the occurrence of the Permanent Deleveraging Event. If such an event were to occur, it most likely would occur only following a Loss Rebalancing Event and prior to the completion of the associated leverage reset to 2.0, which would generally occur at the end of the Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred or, if the Loss Rebalancing Event occurs 3:15 p.m. on an Index Business Day, at the end of the second Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred.

A “**Permanent Deleveraging Event**” occurs if, at any time on an Index Business Day (other than an Excluded Day, as defined below), the Intraday Index Value decreases by 40% or more from the Last Reset Index Closing Level. If a Permanent Deleveraging Event occurs, the Current Principal Amount of the Securities will be reset over two Index Business Days.

As used above, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) any day on or after which a Zero Value Event occurs, (iv) the day which is two Index Business Days prior to the first day of a Measurement Period, if a Permanent Deleveraging Event occurs after 3:15 p.m. on such day, and (v) any calendar day from and including the Index Business Day immediately preceding the first day of a Measurement Period.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- (a) The “**First Permanent Deleveraging Valuation Date**” means:
 - (i) any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “— Market Disruption Event”; or
 - (ii) if a Permanent Deleveraging Event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to approximately 2.0 at the close of trading on the First Permanent Deleveraging Valuation Date.

- (b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Split or Reverse Split of the Securities

We may, at any time in our sole discretion, initiate a split or reverse split of your Securities. If we decide to initiate a split or reverse split, as applicable, we will issue a press release announcing the split or reverse split and its effective date. The date of such press release shall be deemed to be the “**announcement date**” of the split or the reverse split, the record date for any split or reverse split will be the tenth Business Day after the announcement date, and the effective date will be the next Business Day after the record date.

If the Securities undergo a split or reverse split, we will adjust the Current Principal Amount, Closing Indicative Value, Current Indicative Value, Accrued Fees, Measurement Period Cash Amount and other relevant terms of the Securities accordingly. For example, if the Securities undergo a 4:1 split, every investor who holds a Security via The Depository Trust Company (“**DTC**”) on the relevant record date will, after the split, hold four Securities, and adjustments will be made as described below. The Current Principal Amount on such record date will be *divided by* four to reflect the 4:1 split. The adjusted Current Principal Amount will be rounded to eight decimal places. The split or reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The split will not occur if we exercise our Call Right before it becomes effective.

In the case of a reverse split, the Current Principal Amount and other relevant terms of the Securities will be adjusted accordingly and we will determine in our sole discretion the manner in which we will address odd numbers of Securities (commonly referred to as “**partials**”). For example, if the Securities undergo a 1:4 reverse split, every investor who holds four Securities via DTC on the relevant record date will, after the reverse split, hold only one Security and the Current Principal Amount of the Securities on such record date will be multiplied by four to reflect the 1:4 reverse split. The adjusted Current Principal Amount will be rounded to eight decimal places. The reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The reverse split will not occur if we exercise our Call Right before it becomes effective.

Holdings who own a number of Securities on the record date that is not evenly divisible by the reverse split divisor (which in the case of a 1:4 reverse split, for example, will be 4) will receive the same treatment as all other holders for the maximum number of Securities they hold that is evenly divisible by the reverse split divisor. We will determine in our sole discretion the manner in which we compensate holders for their remaining or “**partial**” Securities when we announce the reverse split, though our current intention is to provide holders with a cash payment for their partials on the 17th Business Day following the announcement date in an amount equal to the appropriate percentage of the Closing Indicative Value of the reverse split-adjusted Securities on the 15th Business Day following the announcement date. For example, in the case of a 1:4 reverse split, a holder who held 23 Securities via DTC on the record date would receive five post-reverse split Securities on the immediately following Business Day, and a cash payment on the 17th Business Day following the announcement date that is equal to 3/4 of the Current Principal Amount of the reverse split-adjusted Securities on the 15th Business Day following the announcement date.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Value (which we also refer to as the intraday indicative value), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the LIBOR base rate), the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, that we will pay you if we call the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. If any Intraday Index Value as published by Bloomberg on any Index Business Day is manifestly incorrect, the Security Calculation Agent may base its determination of whether a Loss Rebalancing Event, Permanent Deleveraging Event or Zero Value Event shall have occurred on such Index Business Day on its own determination of such Intraday Index Value. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Securities, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or upon early redemption or call, on or prior to 12:00 noon on the Index Business Day immediately preceding the Maturity Date, any Redemption Date or any Call Settlement Date.

All dollar amounts related to determination of the Accrued Fees, the Current Principal Amount, and any Redemption Amount, Redemption Fee Amount, Call Settlement Amount or Cash Settlement Amount per Security will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid to any holder of Securities will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to either of the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging.”

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Index Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or

- every quotation of that kind obtained is objected to within five Index Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Index Business Day after the first Index Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Index Business Days after that first Index Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Index Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreements with the Index Sponsors; Alteration of Method of Calculation

If (i) an Index Sponsor or the Index Calculation Agent announces that it intends to discontinue, or discontinues, publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a "**successor index**"), and the Security Calculation Agent approves such index as a successor index, then on and after the date determined by the Security Calculation Agent, the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination and the amount payable at maturity or upon early redemption or call and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice of the successor index and the date on and after which the Index Closing Level will be determined by reference thereto be furnished to the trustee, to us and to the holders of the Securities.

If an Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the "**Substitute Index**"), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, Current Principal Amount, Current Indicative Value (intraday indicative value), Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity or upon early redemption or call by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An "**Index Replacement Event**" means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties' ability to perform their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after February 4, 2021 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after February 4, 2021 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities, or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a Substitute Index, or the value thereof, is changed in a material respect, or if the Index or a successor or Substitute Index is in any other way modified so that the Index Closing Level of the Index or such successor or Substitute Index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor or Substitute Index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor or Substitute Index with reference to the Index or such successor or Substitute Index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Last Reset Index Closing Level, the Accrued Fees, and any Redemption Amount, Redemption Fee Amount, Cash Settlement Amount or Call Settlement Amount, and all related payment terms based directly or indirectly on the Index Closing Level calculated by the Security Calculation Agent. Accordingly, if the method of calculating the Index or a successor or Substitute Index is modified so that the level of the Index or such successor or Substitute Index is a fraction or multiple of what it would have been if there had been no such modification (e.g., due to a rebasing of the Index), which, in turn, causes the Index Closing Level of the Index or such successor or Substitute Index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor or Substitute Index as if it had not been modified (e.g., as if such rebasing had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — Risks Relating to Creditworthiness, Conflicts of Interest, Hedging Activities and Regulation of UBS — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or upon early redemption or call will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Reissuances or Reopened Issues

We may, at our sole discretion, "reopen" or reissue any series of Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to "Description of Debt Securities We May Offer — Amounts That We May Issue" in "Medium-Term Notes, Series B" above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities of the same series and will have the same CUSIP number and will trade interchangeably with such Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC's settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

26. ETRACS 2x Leveraged MSCI US Momentum Factor TR ETN due February 9, 2051

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

Each of the seven series of Securities offered by the prospectus supplement is separate and independent of each other series of Securities. Apart from the applicable Index, however, all of the terms of each series of Securities are the same. Since each series references a different Index, all calculations and adjustments and related events with respect to each series are independent of calculations and adjustments and related events for each other series of Securities, and we may exercise our call right as well as our right to initiate a split or a reverse split independently for each series. The following discussion therefore applies independently to each series of Securities offered by the prospectus supplement and, except as the context may otherwise require, the defined terms refer separately to each series. References to the “Securities” should be understood as references to a single series of Securities and the defined terms should be understood in reference only to that series of Securities.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 2, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below. The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or upon early redemption or call. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is February 9, 2051, which will be the third Index Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated upon Zero Value Event, you will receive at maturity a cash payment equal to its Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

UBS may call the Securities prior to the Maturity Date pursuant to its Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “Specific Terms of the Securities — UBS’s Call Right”.

The “Stated Principal Amount” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The Closing Indicative Value represents the dollar value per Security that an investor would receive on any day if it redeemed the Security that day (without giving effect to any Redemption Fee Amount).

The “Closing Indicative Value” per Security, will be calculated as follows:

- (a) On the Initial Trade Date, \$25.00 per Security.
- (b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor) – Accrued Fees
- (c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) – Accrued Fees + Measurement Period Cash Amount

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value *is less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Closing Indicative Value for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.

- (d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs, the Closing Indicative Value will be equal to zero on the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value. If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged notional investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would approximately equal the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero for the remaining term of the Securities. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be automatically accelerated and mandatorily redeemed and you will lose your entire investment.

The Current Principal Amount per Security, will be calculated as follows:

- (a) From and including the Initial Trade Date to and excluding the first Reset Valuation Date, \$25.00 per Security.
- (b) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:

$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the first Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, such day will not be a valid Reset Valuation Date.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset. The “**Reset Valuation Date**” means:

- (a) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and
- (b) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The valuation dates are defined below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, it will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the second Wednesday of January, April, July and October of each calendar year during the term of the Securities (other than an Excluded Day, as defined below), subject to adjustment as described under “— Market Disruption Event”.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor *times* the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

The “**Residual Factor**” will be calculated as follows:

- (a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- (b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, *divided by* (b) four.

For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 3/4, on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 2/4, on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 1/4 and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.

- (c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 2.0. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is the Index Closing Level on the Initial Trade Date, as reported by Bloomberg and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg and Reuters on such day; however, if the closing level of the Index as reported on Bloomberg (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) was determined on February 4, 2021 by the Security Calculation Agent. If the closing level of an Index, as reported on Bloomberg and Reuters for any Index Business Day, is manifestly incorrect, the “**Index Closing Level**” for such Index Business Day shall be the closing level of the Index as determined by the Security Calculation Agent. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates.

On any calendar day that is not an Index Business Day, the Index Closing level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or, if UBS exercises its Call Right, the Call Measurement Period.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- (a) On the Initial Trade Date, \$25.00.
- (b) On any other calendar day prior to the first day of a Measurement Period:

(Current Principal Amount on the immediately preceding calendar day × Index Factor, calculated using the Intraday Index Value) – Accrued Fees

- (c) From and including the first day of a Measurement Period, an amount per Security equal to:

(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor, calculated using the Intraday Index Value × Residual Factor on the immediately preceding calendar day) – Accrued Fees + Measurement Period Cash Amount, from the immediately preceding calendar day. However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is less than or equal to the Measurement Period Cash Amount from the immediately preceding calendar day, the Current Indicative Value for the remainder of that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.

- (d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (intraday indicative value).

If a Zero Value Event occurs, the Current Indicative Value (intraday indicative value) will be equal to zero for the remainder of the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly. The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, plus the Daily Tracking Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- (b) On any subsequent calendar day, the Daily Tracking Fee is equal to:
- (1) (i) 0.95% times (ii) the Current Principal Amount on the immediately preceding calendar day times (iii) the Index Factor on such calendar day times (iv) the Residual Factor on the immediately preceding calendar day, divided by (2) 365.
- (c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly. The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Financing Fee is equal to:
- (1) the Accrued Financing Fee as of the immediately preceding calendar day, plus (2) the Daily Financing Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- (d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Daily Financing Fee is equal to:
 - (1) (i) the Financing Rate on such calendar day *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 360.
- (c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.
- (d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Index. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 0.95% and (b) the London interbank offered rate (ICE LIBOR) for three-month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Security Calculation Agent) (“**LIBOR**”) (or any successor base rate, as described below), as of 11:00 a.m., London time, on the immediately preceding London Business Day. The minimum value of the three-month U.S. Dollar LIBOR rate (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 0.95%

For example, 0.21775% was the three-month U.S. Dollar LIBOR rate on January 21, 2021, which was a London Business Day. The Financing Rate on January 21, 2021 would have been equal to 0.95% + 0.21775%, or 1.16775%.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued or is no longer representative of the underlying market or economic reality, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry- accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- (a) \$0.00 on any calendar day, to but excluding the first day of a Measurement Period.
- (b) On the first day of a one-day Measurement Period:
 - At the close of trading on such Index Business Day, (Current Principal Amount on the immediately preceding calendar day × Index Factor, on such Index Business Day).
- (c) From and including the first day of a four-day Measurement Period:
 - (i) At the close of trading on each Index Business Day during the Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount on the calendar day immediately preceding the first day of such Measurement Period × 0.25 × Index Factor, on such Index Business Day); and
 - (ii) On any calendar day during the Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.
- (d) On any calendar day after the last Index Business Day of a Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

Notwithstanding the foregoing, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is *less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, then the Measurement Period Cash Amount for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash amount from the immediately preceding calendar day.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable portion of the notional financing amount will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of a four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly. The “**Final Measurement Period**” means:

- (a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$500,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$500,000,000, the four Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which for each series of Securities is the entity set forth below:

<u>Title of Securities</u>	<u>Index Calculation Agent</u>
ETRACS 2x Leveraged US Dividend Factor TR ETN	S&P Dow Jones Indices
ETRACS 2x Leveraged US Growth Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged US Size Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged US Value Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged MSCI US Minimum Volatility Factor TR ETN	MSCI, Inc.
ETRACS 2x Leveraged MSCI US Momentum Factor TR ETN	MSCI, Inc.
ETRACS 2x Leveraged MSCI US Quality Factor TR ETN	MSCI, Inc.

The “**Calculation Date**” means February 1, 2051, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustment.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return of each series of Securities is based upon the performance of the applicable Index set forth on the cover page of the prospectus supplement. Each Index is designed to track the performance of a sector of the U.S. equity market and to reflect an investing style. We refer to the securities included in each Index as the “Index Constituent Securities” for such Index.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event”, you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon and a confirmation of redemption by no later than 5:00 p.m. on the same Index Business Day. You must request that we redeem a minimum of 50,000 Securities, although we reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the notice of redemption rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities; however, there can be no assurance that they can or will do so.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if we have issued a call notice, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event”.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date}).$$

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}.$$

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Index Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

The Securities may be called by UBS prior to the Maturity Date pursuant to its Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;

- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon, or your Redemption Confirmation after 5:00 p.m., on the Index Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the Redemption Notice rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS’s Call Right

UBS may at its option redeem all, but not less than all, of the issued and outstanding Securities of any series. To exercise its Call Right, UBS must provide notice to the holders of such Securities (which may be provided via press release) not less than 18 calendar days prior to the Call Settlement Date specified by UBS in such notice. If we call the Securities, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS’s exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Index Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Index Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event”.

The “**Call Measurement Period**” means:

- if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is less than \$500,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”; and
- if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is equal to or greater than \$500,000,000, the four Index Business Days from and including the Call Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of its Call Right will equal:

- The Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Call Valuation Date**” means the date we specify in our notice to holders (which may be provided via press release) of our exercise of our Call Right.

In any notice to holders exercising our Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}$$

You may lose all or a substantial portion of your investment if we exercise our Call Right. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

In addition, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

For each series of Securities, a Zero Value Event represents the first instance when the Current Indicative Value (intraday indicative value) or the Closing Indicative Value is less than or equal to zero (other than on an Excluded Day, as defined below). It will have the effect of permanently resetting the value of your Securities to zero and accelerating the Securities. You will not benefit from any future exposure to the applicable Index after the occurrence of a Zero Value Event.

A Zero Value Event can occur only if a Permanent Deleveraging Event occurs and the Current Indicative Value (intraday indicative value) or the Closing Indicative Value declines to zero before the leverage of your Securities is reset to 1.0 at the close of trading on the Index Business Day following such event (or if such event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, the second Index Business Day following such event), as described under “Permanent Deleveraging Valuation Dates” above.

A “**Zero Value Event**” occurs if the Current Indicative Value (intraday indicative value) or the Closing Indicative Value on any Index Business Day (other than an Excluded Day, as defined below) is less than or equal to zero. From immediately after the Zero Value Event and on all future calendar days, the Current Indicative Value (intraday indicative value) and the Closing Indicative Value will be set equal to zero.

As used above, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on or after which a Zero Value Event has already occurred, and (iii) any calendar day after the last day of an applicable Measurement Period.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event; provided that the failure to do so shall not affect the automatic acceleration and redemption of the Securities. The Securities will be suspended from trading intraday shortly after the event occurs and will likely not be open for trading again on NYSE Arca.

You will lose your entire investment upon the occurrence of a Zero Value Event.

In addition, we may call the Securities prior to the Maturity Date pursuant to our Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day, as used below) decreases by 20% or more from the previous Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, and (ix) any calendar day on or after which a Zero Value Event has occurred.

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”; and

- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0 over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 2.0 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities than it would have had before the occurrence of the Permanent Deleveraging Event. If such an event were to occur, it most likely would occur only following a Loss Rebalancing Event and prior to the completion of the associated leverage reset to 2.0, which would generally occur at the end of the Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred or, if the Loss Rebalancing Event occurs 3:15 p.m. on an Index Business Day, at the end of the second Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred.

A “**Permanent Deleveraging Event**” occurs if, at any time on an Index Business Day (other than an Excluded Day, as defined below), the Intraday Index Value decreases by 40% or more from the Last Reset Index Closing Level. If a Permanent Deleveraging Event occurs, the Current Principal Amount of the Securities will be reset over two Index Business Days.

As used above, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) any day on or after which a Zero Value Event occurs, (iv) the day which is two Index Business Days prior to the first day of a Measurement Period, if a Permanent Deleveraging Event occurs after 3:15 p.m. on such day, and (v) any calendar day from and including the Index Business Day immediately preceding the first day of a Measurement Period.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- (a) The “**First Permanent Deleveraging Valuation Date**” means:
- (i) any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “— Market Disruption Event”; or
 - (ii) if a Permanent Deleveraging Event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to approximately 2.0 at the close of trading on the First Permanent Deleveraging Valuation Date.

- (b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Split or Reverse Split of the Securities

We may, at any time in our sole discretion, initiate a split or reverse split of your Securities. If we decide to initiate a split or reverse split, as applicable, we will issue a press release announcing the split or reverse split and its effective date. The date of such press release shall be deemed to be the “**announcement date**” of the split or the reverse split, the record date for any split or reverse split will be the tenth Business Day after the announcement date, and the effective date will be the next Business Day after the record date.

If the Securities undergo a split or reverse split, we will adjust the Current Principal Amount, Closing Indicative Value, Current Indicative Value, Accrued Fees, Measurement Period Cash Amount and other relevant terms of the Securities accordingly. For example, if the Securities undergo a 4:1 split, every investor who holds a Security via The Depository Trust Company (“**DTC**”) on the relevant record date will, after the split, hold four Securities, and adjustments will be made as described below. The Current Principal Amount on such record date will be *divided by* four to reflect the 4:1 split. The adjusted Current Principal Amount will be rounded to eight decimal places. The split or reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The split will not occur if we exercise our Call Right before it becomes effective.

In the case of a reverse split, the Current Principal Amount and other relevant terms of the Securities will be adjusted accordingly and we will determine in our sole discretion the manner in which we will address odd numbers of Securities (commonly referred to as “partials”). For example, if the Securities undergo a 1:4 reverse split, every investor who holds four Securities via DTC on the relevant record date will, after the reverse split, hold only one Security and the Current Principal Amount of the Securities on such record date will be multiplied by four to reflect the 1:4 reverse split. The adjusted Current Principal Amount will be rounded to eight decimal places. The reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The reverse split will not occur if we exercise our Call Right before it becomes effective.

Holders who own a number of Securities on the record date that is not evenly divisible by the reverse split divisor (which in the case of a 1:4 reverse split, for example, will be 4) will receive the same treatment as all other holders for the maximum number of Securities they hold that is evenly divisible by the reverse split divisor. We will determine in our sole discretion the manner in which we compensate holders for their remaining or “partial” Securities when we announce the reverse split, though our current intention is to provide holders with a cash payment for their partials on the 17th Business Day following the announcement date in an amount equal to the appropriate percentage of the Closing Indicative Value of the reverse split-adjusted Securities on the 15th Business Day following the announcement date. For example, in the case of a 1:4 reverse split, a holder who held 23 Securities via DTC on the record date would receive five post-reverse split Securities on the immediately following Business Day, and a cash payment on the 17th Business Day following the announcement date that is equal to 3/4 of the Current Principal Amount of the reverse split-adjusted Securities on the 15th Business Day following the announcement date.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal

Amount, Current Indicative Value (which we also refer to as the intraday indicative value), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the LIBOR base rate), the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, that we will pay you if we call the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. If any Intraday Index Value as published by Bloomberg on any Index Business Day is manifestly incorrect, the Security Calculation Agent may base its determination of whether a Loss Rebalancing Event, Permanent Deleveraging Event or Zero Value Event shall have occurred on such Index Business Day on its own determination of such Intraday Index Value. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Securities, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or upon early redemption or call, on or prior to 12:00 noon on the Index Business Day immediately preceding the Maturity Date, any Redemption Date or any Call Settlement Date.

All dollar amounts related to determination of the Accrued Fees, the Current Principal Amount, and any Redemption Amount, Redemption Fee Amount, Call Settlement Amount or Cash Settlement Amount per Security will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid to any holder of Securities will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to either of the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging.”

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys' fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Index Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Index Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Index Business Day after the first Index Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Index Business Days after that first Index Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Index Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody's Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreements with the Index Sponsors; Alteration of Method of Calculation

If (i) an Index Sponsor or the Index Calculation Agent announces that it intends to discontinue, or discontinues, publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a "successor index"), and the Security Calculation Agent approves such index as a successor index, then on and after the date determined by the Security Calculation Agent, the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination and the amount payable at maturity or upon early redemption or call and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice of the successor index and the date on and after which the Index Closing Level will be determined by reference thereto be furnished to the trustee, to us and to the holders of the Securities.

If an Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation

Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or

on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, Current Principal Amount, Current Indicative Value (intraday indicative value), Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity or upon early redemption or call by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after February 4, 2021 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after February 4, 2021 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities, or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or

- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a Substitute Index, or the value thereof, is changed in a material respect, or if the Index or a successor or Substitute Index is in any other way modified so that the Index Closing Level of the Index or such successor or Substitute Index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor or Substitute Index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor or Substitute Index with reference to the Index or such successor or Substitute Index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Last Reset Index Closing Level, the Accrued Fees, and any Redemption Amount, Redemption Fee Amount, Cash Settlement Amount or Call Settlement Amount, and all related payment terms based directly or indirectly on the Index Closing Level calculated by the Security Calculation Agent. Accordingly, if the method of calculating the Index or a successor or Substitute Index is modified so that the level of the Index or such successor or Substitute Index is a fraction or multiple of what it would have been if there had been no such modification (*e.g.*, due to a rebasing of the Index),

which, in turn, causes the Index Closing Level of the Index or such successor or Substitute Index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor or Substitute Index as if it had not been modified (*e.g.*, as if such rebasing had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — Risks Relating to Creditworthiness, Conflicts of Interest, Hedging Activities and Regulation of UBS — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or upon early redemption or call will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Reissuances or Reopened Issues

We may, at our sole discretion, "reopen" or reissue any series of Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to "Description of Debt Securities We May Offer — Amounts That We May Issue" in "Medium-Term Notes, Series B" above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities of the same series and will have the same CUSIP number and will trade interchangeably with such Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC's settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

27. ETRACS 2x Leveraged MSCI US Quality Factor TR ETN due February 9, 2051

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

Each of the seven series of Securities offered by the prospectus supplement is separate and independent of each other series of Securities. Apart from the applicable Index, however, all of the terms of each series of Securities are the same. Since each series references a different Index, all calculations and adjustments and related events with respect to each series are independent of calculations and adjustments and related events for each other series of Securities, and we may exercise our call right as well as our right to initiate a split or a reverse split independently for each series. The following discussion therefore applies independently to each series of Securities offered by the prospectus supplement and, except as the context may otherwise require, the defined terms refer separately to each series. References to the “Securities” should be understood as references to a single series of Securities and the defined terms should be understood in reference only to that series of Securities.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 2, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below. The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or upon early redemption or call. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is February 9, 2051, which will be the third Index Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated upon Zero Value Event, you will receive at maturity a cash payment equal to its Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

UBS may call the Securities prior to the Maturity Date pursuant to its Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “Specific Terms of the Securities — UBS’s Call Right”.

The “Stated Principal Amount” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The Closing Indicative Value represents the dollar value per Security that an investor would receive on any day if it redeemed the Security that day (without giving effect to any Redemption Fee Amount).

The “Closing Indicative Value” per Security, will be calculated as follows:

- (a) On the Initial Trade Date, \$25.00 per Security.
- (b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor) – Accrued Fees
- (c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) – Accrued Fees + Measurement Period Cash Amount

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value *is less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Closing Indicative Value for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.

- (d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs, the Closing Indicative Value will be equal to zero on the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged notional investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would approximately equal the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero for the remaining term of the Securities. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be automatically accelerated and mandatorily redeemed and you will lose your entire investment.

The Current Principal Amount per Security, will be calculated as follows:

- (a) From and including the Initial Trade Date to and excluding the first Reset Valuation Date, \$25.00 per Security.
- (b) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:
$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the first Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, such day will not be a valid Reset Valuation Date.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset. The “**Reset Valuation Date**” means:

- (a) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and
- (b) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The valuation dates are defined below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, it will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the second Wednesday of January, April, July and October of each calendar year during the term of the Securities (other than an Excluded Day, as defined below), subject to adjustment as described under “— Market Disruption Event”.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor *times* the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

The “**Residual Factor**” will be calculated as follows:

- (a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- (b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, *divided by* (b) four.

For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 3/4, on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 2/4, on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 1/4 and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.

- (c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 2.0. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is the Index Closing Level on the Initial Trade Date, as reported by Bloomberg and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg and Reuters on such day; however, if the closing level of the Index as reported on Bloomberg (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) was determined on February 4, 2021 by the Security Calculation Agent. If the closing level of an Index, as reported on Bloomberg and Reuters for any Index Business Day, is manifestly incorrect, the “**Index Closing Level**” for such Index Business Day shall be the closing level of the Index as determined by the Security Calculation Agent. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates.

On any calendar day that is not an Index Business Day, the Index Closing level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or, if UBS exercises its Call Right, the Call Measurement Period.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- (a) On the Initial Trade Date, \$25.00.
- (b) On any other calendar day prior to the first day of a Measurement Period:
(Current Principal Amount on the immediately preceding calendar day \times Index Factor, calculated using the Intraday Index Value) – Accrued Fees
- (c) From and including the first day of a Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period \times Index Factor, calculated using the Intraday Index Value \times Residual Factor on the immediately preceding calendar day) – Accrued Fees + Measurement Period Cash Amount, from the immediately preceding calendar day

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value *is less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Current Indicative Value for the remainder of that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (intraday indicative value).

If a Zero Value Event occurs, the Current Indicative Value (intraday indicative value) will be equal to zero for the remainder of the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly. The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, *plus* the Daily Tracking Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- (b) On any subsequent calendar day, the Daily Tracking Fee is equal to:
(1)(i) 0.95% *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Index Factor on such calendar day *times* (iv) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 365.
- (c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly. The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Financing Fee is equal to:
(1)the Accrued Financing Fee as of the immediately preceding calendar day, *plus* (2) the Daily Financing Fee on such calendar day.

- (c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- (d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Daily Financing Fee is equal to:
 - (1)(i) the Financing Rate on such calendar day *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 360.
- (c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.
- (d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Index. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 0.95% and (b) the London interbank offered rate (ICE LIBOR) for three- month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Security Calculation Agent) (“**LIBOR**”) (or any successor base rate, as described below), as of 11:00 a.m., London time, on the immediately preceding London Business Day. The minimum value of the three-month U.S. Dollar LIBOR rate (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 0.95%

For example, 0.21775% was the three-month U.S. Dollar LIBOR rate on January 21, 2021, which was a London Business Day. The Financing Rate on January 21, 2021 would have been equal to 0.95% + 0.21775%, or 1.16775%.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued or is no longer representative of the underlying market or economic reality, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry- accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- (a) \$0.00 on any calendar day, to but excluding the first day of a Measurement Period.
- (b) On the first day of a one-day Measurement Period:
 - At the close of trading on such Index Business Day, (Current Principal Amount on the immediately preceding calendar day × Index Factor, on such Index Business Day).
- (c) From and including the first day of a four-day Measurement Period:

- (i) At the close of trading on each Index Business Day during the Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount on the calendar day immediately preceding the first day of such Measurement Period \times 0.25 \times Index Factor, on such Index Business Day); and
- (ii) On any calendar day during the Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.
- (d) On any calendar day after the last Index Business Day of a Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

Notwithstanding the foregoing, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is *less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, then the Measurement Period Cash Amount for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash amount from the immediately preceding calendar day.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount on the calendar day immediately preceding the first

day of the Measurement Period, will be deemed converted to cash and an applicable portion of the notional financing amount will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of a four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- (a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$500,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$500,000,000, the four Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which for each series of Securities is the entity set forth below:

<u>Title of Securities</u>	<u>Index Calculation Agent</u>
ETRACS 2x Leveraged US Dividend Factor TR ETN	S&P Dow Jones Indices
ETRACS 2x Leveraged US Growth Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged US Size Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged US Value Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged MSCI US Minimum Volatility Factor TR ETN	MSCI, Inc.
ETRACS 2x Leveraged MSCI US Momentum Factor TR ETN	MSCI, Inc.
ETRACS 2x Leveraged MSCI US Quality Factor TR ETN	MSCI, Inc.

The “**Calculation Date**” means February 1, 2051, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustment.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return of each series of Securities is based upon the performance of the applicable Index set forth on the cover page of the prospectus supplement. Each Index is designed to track the performance of a sector of the U.S. equity market and to reflect an investing style. We refer to the securities included in each Index as the “Index Constituent Securities” for such Index.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event”, you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon and a confirmation of redemption by no later than 5:00 p.m. on the same Index Business Day. You must request that we redeem a minimum of 50,000 Securities, although we reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the notice of redemption rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities; however, there can be no assurance that they can or will do so.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if we have issued a call notice, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event”.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date})$.

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}$.

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Index Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

The Securities may be called by UBS prior to the Maturity Date pursuant to its Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon, or your Redemption Confirmation after 5:00 p.m., on the Index Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the Redemption Notice rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS's Call Right

UBS may at its option redeem all, but not less than all, of the issued and outstanding Securities of any series. To exercise its Call Right, UBS must provide notice to the holders of such Securities (which may be provided via press release) not less than 18 calendar days prior to the Call Settlement Date specified by UBS in such notice. If we call the Securities, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS's exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Index Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Index Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event”.

The “**Call Measurement Period**” means:

- (a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is less than \$500,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”; and
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is equal to or greater than \$500,000,000, the four Index Business Days from and including the Call Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of its Call Right will equal:

(i) The Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Call Valuation Date**” means the date we specify in our notice to holders (which may be provided via press release) of our exercise of our Call Right.

In any notice to holders exercising our Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment if we exercise our Call Right. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

In addition, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

For each series of Securities, a Zero Value Event represents the first instance when the Current Indicative Value (intraday indicative value) or the Closing Indicative Value is less than or equal to zero (other than on an Excluded Day, as defined below). It will have the effect of permanently resetting the value of your Securities to zero and accelerating the Securities. You will not benefit from any future exposure to the applicable Index after the occurrence of a Zero Value Event.

A Zero Value Event can occur only if a Permanent Deleveraging Event occurs and the Current Indicative Value (intraday indicative value) or the Closing Indicative Value declines to zero before the leverage of your Securities is reset to 1.0 at the close of trading on the Index Business Day following such event (or if such event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, the second Index Business Day following such event), as described under “Permanent Deleveraging Valuation Dates” above.

A “**Zero Value Event**” occurs if the Current Indicative Value (intraday indicative value) or the Closing Indicative Value on any Index Business Day (other than an Excluded Day, as defined below) is less than or equal to zero. From immediately after the Zero Value Event and on all future calendar days, the Current Indicative Value (intraday indicative value) and the Closing Indicative Value will be set equal to zero.

As used above, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on or after which a Zero Value Event has already occurred, and (iii) any calendar day after the last day of an applicable Measurement Period.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event; provided that the failure to do so shall not affect the automatic acceleration and redemption of the Securities. The Securities will be suspended from trading intraday shortly after the event occurs and will likely not be open for trading again on NYSE Arca.

You will lose your entire investment upon the occurrence of a Zero Value Event.

In addition, we may call the Securities prior to the Maturity Date pursuant to our Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day, as used below) decreases by 20% or more from the previous Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, and (ix) any calendar day on or after which a Zero Value Event has occurred.

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”; and
- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0 over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 2.0 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities than it would have had before the occurrence of the Permanent Deleveraging Event. If such an event were to occur, it most likely would occur only following a Loss Rebalancing Event and prior to the completion of the associated leverage reset to 2.0, which would generally occur at the end of the Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred or, if the Loss Rebalancing Event occurs 3:15 p.m. on an Index Business Day, at the end of the second Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred.

A “Permanent Deleveraging Event” occurs if, at any time on an Index Business Day (other than an Excluded Day, as defined below), the Intraday Index Value decreases by 40% or more from the Last Reset Index Closing Level. If a Permanent Deleveraging Event occurs, the Current Principal Amount of the Securities will be reset over two Index Business Days.

As used above, an “Excluded Day” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) any day on or after which a Zero Value Event occurs, (iv) the day which is two Index Business Days prior to the first day of a Measurement Period, if a Permanent Deleveraging Event occurs after 3:15 p.m. on such day, and (v) any calendar day from and including the Index Business Day immediately preceding the first day of a Measurement Period.

“Permanent Deleveraging Valuation Dates” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- (a) The “First Permanent Deleveraging Valuation Date” means:
 - (i) any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “— Market Disruption Event”; or
 - (ii) if a Permanent Deleveraging Event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to approximately 2.0 at the close of trading on the First Permanent Deleveraging Valuation Date.

- (b) The “Second Permanent Deleveraging Valuation Date” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Split or Reverse Split of the Securities

We may, at any time in our sole discretion, initiate a split or reverse split of your Securities. If we decide to initiate a split or reverse split, as applicable, we will issue a press release announcing the split or reverse split and its effective date. The date of such press release shall be deemed to be the “**announcement date**” of the split or the reverse split, the record date for any split or reverse split will be the tenth Business Day after the announcement date, and the effective date will be the next Business Day after the record date.

If the Securities undergo a split or reverse split, we will adjust the Current Principal Amount, Closing Indicative Value, Current Indicative Value, Accrued Fees, Measurement Period Cash Amount and other relevant terms of the Securities accordingly. For example, if the Securities undergo a 4:1 split, every investor who holds a Security via The Depository Trust Company (“DTC”) on the relevant record date will, after the split, hold four Securities, and adjustments will be made as described below. The Current Principal Amount on such record date will be *divided by* four to reflect the 4:1 split. The adjusted Current Principal Amount will be rounded to eight decimal places. The split or reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The split will not occur if we exercise our Call Right before it becomes effective.

In the case of a reverse split, the Current Principal Amount and other relevant terms of the Securities will be adjusted accordingly and we will determine in our sole discretion the manner in which we will address odd numbers of Securities (commonly referred to as “partials”). For example, if the Securities undergo a 1:4 reverse split, every investor who holds four Securities via DTC on the relevant record date will, after the reverse split, hold only one Security and the Current Principal Amount of the Securities on such record date will be multiplied by four to reflect the 1:4 reverse split. The adjusted Current Principal Amount will be rounded to eight decimal places. The reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The reverse split will not occur if we exercise our Call Right before it becomes effective.

Holder who own a number of Securities on the record date that is not evenly divisible by the reverse split divisor (which in the case of a 1:4 reverse split, for example, will be 4) will receive the same treatment as all other holders for the maximum number of Securities they hold that is evenly divisible by the reverse split divisor. We will determine in our sole discretion the manner in which we compensate holders for their remaining or “partial” Securities when we announce the reverse split, though our current intention is to provide holders with a cash payment for their partials on the 17th Business Day following the announcement date in an amount equal to the appropriate percentage of the Closing Indicative Value of the reverse split-adjusted Securities on the 15th Business Day following the announcement date. For example, in the case of a 1:4 reverse split, a holder who held 23 Securities via DTC on the record date would receive five post-reverse split Securities on the immediately following Business Day, and a cash payment on the 17th Business Day following the announcement date that is equal to 3/4 of the Current Principal Amount of the reverse split-adjusted Securities on the 15th Business Day following the announcement date.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal

Amount, Current Indicative Value (which we also refer to as the intraday indicative value), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the LIBOR base rate), the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, that we will pay you if we call the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. If any Intraday Index Value as published by Bloomberg on any Index Business Day is manifestly incorrect, the Security Calculation Agent may base its determination of whether a Loss Rebalancing Event, Permanent Deleveraging Event or Zero Value Event shall have occurred on such Index Business Day on its own determination of such Intraday Index Value. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Securities, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or upon early redemption or call, on or prior to 12:00 noon on the Index Business Day immediately preceding the Maturity Date, any Redemption Date or any Call Settlement Date.

All dollar amounts related to determination of the Accrued Fees, the Current Principal Amount, and any Redemption Amount, Redemption Fee Amount, Call Settlement Amount or Cash Settlement Amount per Security will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (e.g., .76545 would be rounded up to .7655); and all dollar amounts paid to any holder of Securities will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to either of the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging.”

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Index Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Index Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Index Business Day after the first Index Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Index Business Days after that first Index Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Index Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreements with the Index Sponsors; Alteration of Method of Calculation

If (i) an Index Sponsor or the Index Calculation Agent announces that it intends to discontinue, or discontinues, publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), and the Security Calculation Agent approves such index as a successor index, then on and after the date determined by the Security Calculation Agent, the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination and the amount payable at maturity or upon early redemption or call and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice of the successor index and the date on and after which the Index Closing Level will be determined by reference thereto be furnished to the trustee, to us and to the holders of the Securities.

If an Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, Current Principal Amount, Current Indicative Value (intraday indicative value), Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity or upon early redemption or call by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after February 4, 2021 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after February 4, 2021 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities, or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a Substitute Index, or the value thereof, is changed in a material respect, or if the Index or a successor or Substitute Index is in any other way modified so that the Index Closing Level of the Index or such successor or Substitute Index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor or Substitute Index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor or Substitute Index with reference to the Index or such successor or Substitute Index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Last Reset Index Closing Level, the Accrued Fees, and any Redemption Amount, Redemption Fee Amount, Cash Settlement Amount or Call Settlement Amount, and all related payment terms based directly or indirectly on the Index Closing Level calculated by the Security Calculation Agent. Accordingly, if the method of calculating the Index or a successor or Substitute Index is modified so that the level of the Index or such successor or Substitute Index is a fraction or multiple of what it would have been if there had been no such modification (*e.g.*, due to a rebasing of the Index), which, in turn, causes the Index Closing Level of the Index or such successor or Substitute Index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor or Substitute Index as if it had not been modified (*e.g.*, as if such rebasing had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — Risks Relating to Creditworthiness, Conflicts of Interest, Hedging Activities and Regulation of UBS — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or upon early redemption or call will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue any series of Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B” above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities of the same series and will have the same CUSIP number and will trade interchangeably with such Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

28. ETRACS 2x Leveraged US Dividend Factor TR ETN due February 9, 2051

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository. Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

Each of the seven series of Securities offered by the prospectus supplement is separate and independent of each other series of Securities. Apart from the applicable Index, however, all of the terms of each series of Securities are the same. Since each series references a different Index, all calculations and adjustments and related events with respect to each series are independent of calculations and adjustments and related events for each other series of Securities, and we may exercise our call right as well as our right to initiate a split or a reverse split independently for each series. The following discussion therefore applies independently to each series of Securities offered by the prospectus supplement and, except as the context may otherwise require, the defined terms refer separately to each series. References to the “Securities” should be understood as references to a single series of Securities and the defined terms should be understood in reference only to that series of Securities.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 2, 2015 between us and U.S. Bank Trust National Association, as trustee.

We describe the terms of the Securities in more detail below. The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or upon early redemption or call. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is February 9, 2051, which will be the third Index Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated upon Zero Value Event, you will receive at maturity a cash payment equal to its Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

UBS may call the Securities prior to the Maturity Date pursuant to its Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “Specific Terms of the Securities — UBS’s Call Right”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The Closing Indicative Value represents the dollar value per Security that an investor would receive on any day if it redeemed the Security that day (without giving effect to any Redemption Fee Amount).

The “**Closing Indicative Value**” per Security, will be calculated as follows:

- (a) On the Initial Trade Date, \$25.00 per Security.
- (b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor) – Accrued Fees
- (c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) – Accrued Fees + Measurement Period Cash Amount
However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value *is less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Closing Indicative Value for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs, the Closing Indicative Value will be equal to zero on the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged notional investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would approximately equal the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero for the remaining term of the Securities. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be automatically accelerated and mandatorily redeemed and you will lose your entire investment.

The Current Principal Amount per Security, will be calculated as follows:

- (a) From and including the Initial Trade Date to and excluding the first Reset Valuation Date, \$25.00 per Security.
- (b) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:
$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the first Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, such day will not be a valid Reset Valuation Date.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly. At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset.

The “**Reset Valuation Date**” means:

- (a) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and
- (b) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The valuation dates are defined below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, it will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the second Wednesday of January, April, July and October of each calendar year during the term of the Securities (other than an Excluded Day, as defined below), subject to adjustment as described under “— Market Disruption Event”.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor *times* the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

The “**Residual Factor**” will be calculated as follows:

- (a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- (b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, *divided by* (b) four.

For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 3/4, on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 2/4, on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 1/4 and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.

- (c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 2.0. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is the Index Closing Level on the Initial Trade Date, as reported by Bloomberg and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg and Reuters on such day; however, if the closing level of the Index as reported on Bloomberg (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) was determined on February 4, 2021 by the Security Calculation Agent. If the closing level of an Index, as reported on Bloomberg and Reuters for any Index Business Day, is manifestly incorrect, the “**Index Closing Level**” for such Index Business Day shall be the closing level of the Index as determined by the Security Calculation Agent. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates.

On any calendar day that is not an Index Business Day, the Index Closing level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or, if UBS exercises its Call Right, the Call Measurement Period.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- (a) On the Initial Trade Date, \$25.00.
- (b) On any other calendar day prior to the first day of a Measurement Period:
(Current Principal Amount on the immediately preceding calendar day × Index Factor, calculated using the Intraday Index Value) – Accrued Fees
- (c) From and including the first day of a Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor, calculated using the Intraday Index Value × Residual Factor on the immediately preceding calendar day) – Accrued Fees + Measurement Period Cash Amount, from the immediately preceding calendar day

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value *is less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Current Indicative Value for the remainder of that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (intraday indicative value).

If a Zero Value Event occurs, the Current Indicative Value (intraday indicative value) will be equal to zero for the remainder of the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly.

The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, *plus* the Daily Tracking Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- (b) On any subsequent calendar day, the Daily Tracking Fee is equal to:
(1)(i) 0.95% *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Index Factor on such calendar day *times* (iv) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 365.
- (c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly.

The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Financing Fee is equal to:

- (1) the Accrued Financing Fee as of the immediately preceding calendar day, *plus* (2) the Daily Financing Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- (d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Daily Financing Fee is equal to:
- (1)(i) the Financing Rate on such calendar day *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 360.
- (c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.
- (d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Index. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 0.95% and (b) the London interbank offered rate (ICE LIBOR) for three- month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Security Calculation Agent) (“**LIBOR**”) (or any successor base rate, as described below), as of 11:00 a.m., London time, on the immediately preceding London Business Day. The minimum value of the three-month U.S. Dollar LIBOR rate (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 0.95%

For example, 0.21775% was the three-month U.S. Dollar LIBOR rate on January 21, 2021, which was a London Business Day. The Financing Rate on January 21, 2021 would have been equal to 0.95% + 0.21775%, or 1.16775%.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued or is no longer representative of the underlying market or economic reality, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry- accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- (a) \$0.00 on any calendar day, to but excluding the first day of a Measurement Period.
- (b) On the first day of a one-day Measurement Period:
- At the close of trading on such Index Business Day, (Current Principal Amount on the immediately preceding calendar day × Index Factor, on such Index Business Day).
- (c) From and including the first day of a four-day Measurement Period:

- (i) At the close of trading on each Index Business Day during the Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount on the calendar day immediately preceding the first day of such Measurement Period \times 0.25 \times Index Factor, on such Index Business Day); and
- (ii) On any calendar day during the Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.
- (d) On any calendar day after the last Index Business Day of a Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

Notwithstanding the foregoing, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is *less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, then the Measurement Period Cash Amount for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash amount from the immediately preceding calendar day.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable portion of the notional financing amount will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of a four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly. The “**Final Measurement Period**” means:

- (a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$500,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$500,000,000, the four Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which for each series of Securities is the entity set forth below:

<u>Title of Securities</u>	<u>Index Calculation Agent</u>
ETRACS 2x Leveraged US Dividend Factor TR ETN	S&P Dow Jones Indices
ETRACS 2x Leveraged US Growth Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged US Size Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged US Value Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged MSCI US Minimum Volatility Factor TR ETN	MSCI, Inc.
ETRACS 2x Leveraged MSCI US Momentum Factor TR ETN	MSCI, Inc.
ETRACS 2x Leveraged MSCI US Quality Factor TR ETN	MSCI, Inc.

The “**Calculation Date**” means February 1, 2051, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustment.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return of each series of Securities is based upon the performance of the applicable Index set forth on the cover page of this prospectus supplement. Each Index is designed to track the performance of a sector of the U.S. equity market and to reflect an investing style. We refer to the securities included in each Index as the “Index Constituent Securities” for such Index.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event”, you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon and a confirmation of redemption by no later than 5:00 p.m. on the same Index Business Day. You must request that we redeem a minimum of 50,000 Securities, although we reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the notice of redemption rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities; however, there can be no assurance that they can or will do so.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if we have issued a call notice, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event”.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date})$.

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

$\text{Closing Indicative Value as of the Redemption Valuation Date} - \text{Redemption Fee Amount}$.

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Index Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

$$\text{Redemption Amount} = \text{Closing Indicative Value} - \text{Redemption Fee Amount}$$

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

The Securities may be called by UBS prior to the Maturity Date pursuant to its Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon, or your Redemption Confirmation after 5:00 p.m., on the Index Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the Redemption Notice rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS's Call Right

UBS may at its option redeem all, but not less than all, of the issued and outstanding Securities of any series. To exercise its Call Right, UBS must provide notice to the holders of such Securities (which may be provided via press release) not less than 18 calendar days prior to the Call Settlement Date specified by UBS in such notice. If we call the Securities, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS's exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Index Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Index Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event”.

The “**Call Measurement Period**” means:

- (a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is less than \$500,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”; and
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is equal to or greater than \$500,000,000, the four Index Business Days from and including the Call Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of its Call Right will equal:

(i) The Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Call Valuation Date**” means the date we specify in our notice to holders (which may be provided via press release) of our exercise of our Call Right.

In any notice to holders exercising our Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment if we exercise our Call Right. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

In addition, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

For each series of Securities, a Zero Value Event represents the first instance when the Current Indicative Value (intraday indicative value) or the Closing Indicative Value is less than or equal to zero (other than on an Excluded Day, as defined below). It will have the effect of permanently resetting the value of your Securities to zero and accelerating the Securities. You will not benefit from any future exposure to the applicable Index after the occurrence of a Zero Value Event.

A Zero Value Event can occur only if a Permanent Deleveraging Event occurs and the Current Indicative Value (intraday indicative value) or the Closing Indicative Value declines to zero before the leverage of your Securities is reset to 1.0 at the close of trading on the Index Business Day following such event (or if such event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, the second Index Business Day following such event), as described under “Permanent Deleveraging Valuation Dates” above.

A “**Zero Value Event**” occurs if the Current Indicative Value (intraday indicative value) or the Closing Indicative Value on any Index Business Day (other than an Excluded Day, as defined below) is less than or equal to zero. From immediately after the Zero Value Event and on all future calendar days, the Current Indicative Value (intraday indicative value) and the Closing Indicative Value will be set equal to zero.

As used above, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on or after which a Zero Value Event has already occurred, and (iii) any calendar day after the last day of an applicable Measurement Period.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event; provided that the failure to do so shall not affect the automatic acceleration and redemption of the Securities. The Securities will be suspended from trading intraday shortly after the event occurs and will likely not be open for trading again on NYSE Arca.

You will lose your entire investment upon the occurrence of a Zero Value Event.

In addition, we may call the Securities prior to the Maturity Date pursuant to our Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day, as used below) decreases by 20% or more from the previous Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, and (ix) any calendar day on or after which a Zero Value Event has occurred.

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”; and
- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0 over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 2.0 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities than it would have had before the occurrence of the Permanent Deleveraging Event. If such an event were to occur, it most likely would occur only following a Loss Rebalancing Event and prior to the completion of the associated leverage reset to 2.0, which would generally occur at the end of the Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred or, if the Loss Rebalancing Event occurs 3:15 p.m. on an Index Business Day, at the end of the second Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred.

A “**Permanent Deleveraging Event**” occurs if, at any time on an Index Business Day (other than an Excluded Day, as defined below), the Intraday Index Value decreases by 40% or more from the Last Reset Index Closing Level. If a Permanent Deleveraging Event occurs, the Current Principal Amount of the Securities will be reset over two Index Business Days.

As used above, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) any day on or after which a Zero Value Event occurs, (iv) the day which is two Index Business Days prior to the first day of a Measurement Period, if a Permanent Deleveraging Event occurs after 3:15 p.m. on such day, and (v) any calendar day from and including the Index Business Day immediately preceding the first day of a Measurement Period.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- (a) The “**First Permanent Deleveraging Valuation Date**” means:
 - (i) any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “— Market Disruption Event”; or
 - (ii) if a Permanent Deleveraging Event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to approximately 2.0 at the close of trading on the First Permanent Deleveraging Valuation Date.

- (b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Split or Reverse Split of the Securities

We may, at any time in our sole discretion, initiate a split or reverse split of your Securities. If we decide to initiate a split or reverse split, as applicable, we will issue a press release announcing the split or reverse split and its effective date. The date of such press release shall be deemed to be the “**announcement date**” of the split or the reverse split, the record date for any split or reverse split will be the tenth Business Day after the announcement date, and the effective date will be the next Business Day after the record date.

If the Securities undergo a split or reverse split, we will adjust the Current Principal Amount, Closing Indicative Value, Current Indicative Value, Accrued Fees, Measurement Period Cash Amount and other relevant terms of the Securities accordingly. For example, if the Securities undergo a 4:1 split, every investor who holds a Security via The Depository Trust Company (“DTC”) on the relevant record date will, after the split, hold four Securities, and adjustments will be made as described below. The Current Principal Amount on such record date will be *divided by* four to reflect the 4:1 split. The adjusted Current Principal Amount will be rounded to eight decimal places. The split or reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The split will not occur if we exercise our Call Right before it becomes effective.

In the case of a reverse split, the Current Principal Amount and other relevant terms of the Securities will be adjusted accordingly and we will determine in our sole discretion the manner in which we will address odd numbers of Securities (commonly referred to as “partials”). For example, if the Securities undergo a 1:4 reverse split, every investor who holds four Securities via DTC on the relevant record date will, after the reverse split, hold only one Security and the Current Principal Amount of the Securities on such record date will be multiplied by four to reflect the 1:4 reverse split. The adjusted Current Principal Amount will be rounded to eight decimal places. The reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The reverse split will not occur if we exercise our Call Right before it becomes effective.

Holder who own a number of Securities on the record date that is not evenly divisible by the reverse split divisor (which in the case of a 1:4 reverse split, for example, will be 4) will receive the same treatment as all other holders for the maximum number of Securities they hold that is evenly divisible by the reverse split divisor. We will determine in our sole discretion the manner in which we compensate holders for their remaining or “partial” Securities when we announce the reverse split, though our current intention is to provide holders with a cash payment for their partials on the 17th Business Day following the announcement date in an amount equal to the appropriate percentage of the Closing Indicative Value of the reverse split-adjusted Securities on the 15th Business Day following the announcement date. For example, in the case of a 1:4 reverse split, a holder who held 23 Securities via DTC on the record date would receive five post-reverse split Securities on the immediately following Business Day, and a cash payment on the 17th Business Day following the announcement date that is equal to 3/4 of the Current Principal Amount of the reverse split-adjusted Securities on the 15th Business Day following the announcement date.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal Amount, Current Indicative Value (which we also refer to as the intraday indicative value), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the LIBOR base rate), the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, that we will pay you if we call the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. If any Intraday Index Value as published by Bloomberg on any Index Business Day is manifestly incorrect, the Security Calculation Agent may base its determination of whether a Loss Rebalancing Event, Permanent Deleveraging Event or Zero Value Event shall have occurred on such Index Business Day on its own determination of such Intraday Index Value. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Securities, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or upon early redemption or call, on or prior to 12:00 noon on the Index Business Day immediately preceding the Maturity Date, any Redemption Date or any Call Settlement Date.

All dollar amounts related to determination of the Accrued Fees, the Current Principal Amount, and any Redemption Amount, Redemption Fee Amount, Call Settlement Amount or Cash Settlement Amount per Security will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid to any holder of Securities will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to either of the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging.”

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Index Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Index Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Index Business Day after the first Index Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Index Business Days after that first Index Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Index Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreements with the Index Sponsors; Alteration of Method of Calculation

If (i) an Index Sponsor or the Index Calculation Agent announces that it intends to discontinue, or discontinues, publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), and the Security Calculation Agent approves such index as a successor index, then on and after the date determined by the Security Calculation Agent, the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination and the amount payable at maturity or upon early redemption or call and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice of the successor index and the date on and after which the Index Closing Level will be determined by reference thereto be furnished to the trustee, to us and to the holders of the Securities.

If an Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, Current Principal Amount, Current Indicative Value (intraday indicative value), Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity or upon early redemption or call by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after February 4, 2021 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after February 4, 2021 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities, or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a Substitute Index, or the value thereof, is changed in a material respect, or if the Index or a successor or Substitute Index is in any other way modified so that the Index Closing Level of the Index or such successor or Substitute Index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor or Substitute Index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor or Substitute Index with reference to the Index or such successor or Substitute Index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Last Reset Index Closing Level, the Accrued Fees, and any Redemption Amount, Redemption Fee Amount, Cash Settlement Amount or Call Settlement Amount, and all related payment terms based directly or indirectly on the Index Closing Level calculated by the Security Calculation Agent. Accordingly, if the method of calculating the Index or a successor or Substitute Index is modified so that the level of the Index or such successor or Substitute Index is a fraction or multiple of what it would have been if there had been no such modification (*e.g.*, due to a rebasing of the Index), which, in turn, causes the Index Closing Level of the Index or such successor or Substitute Index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor or Substitute Index as if it had not been modified (*e.g.*, as if such rebasing had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — Risks Relating to Creditworthiness, Conflicts of Interest, Hedging Activities and Regulation of UBS — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or upon early redemption or call will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue any series of Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B” above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities of the same series and will have the same CUSIP number and will trade interchangeably with such Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.

29. ETRACS 2x Leveraged MSCI US Minimum Volatility Factor TR ETN due February 9, 2051

Specific Terms of the Securities

In this section, references to “holders” mean those who own the Securities registered in their own names, on the books that we or the trustee maintains for this purpose, and not those who own beneficial interests in the Securities registered in street name or in the Securities issued in book-entry form through The Depository Trust Company (“DTC”) or another depository Owners of beneficial interests in the Securities should read the section entitled “Legal Ownership and Book-Entry Issuance” under “Medium-Term Notes, Series B” above.

Each of the seven series of Securities offered by the prospectus supplement is separate and independent of each other series of Securities. Apart from the applicable Index, however, all of the terms of each series of Securities are the same. Since each series references a different Index, all calculations and adjustments and related events with respect to each series are independent of calculations and adjustments and related events for each other series of Securities, and we may exercise our call right as well as our right to initiate a split or a reverse split independently for each series. The following discussion therefore applies independently to each series of Securities offered by the prospectus supplement and, except as the context may otherwise require, the defined terms refer separately to each series. References to the “Securities” should be understood as references to a single series of Securities and the defined terms should be understood in reference only to that series of Securities.

These Securities are part of a series of debt securities entitled “Medium-Term Notes, Series B” that we may issue, from time to time, under the indenture more particularly described under “Medium-Term Notes, Series B” above. This section summarizes general financial and other terms that apply to the Securities. Terms that apply generally to all Medium-Term Notes, Series B are described in “Description of Debt Securities We May Offer” under “Medium-Term Notes, Series B” above. The terms described here supplement those described in “Medium-Term Notes, Series B” above and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

The Securities are part of a single series of senior debt securities issued under our indenture, dated as of June 2, 2015 between us and U.S. Bank Trust National Association, as trustee.

Please note that the information about the offering prices and the net proceeds to UBS on the front cover of the prospectus supplement relates only to the initial sale of the Securities. If you have purchased the Securities in a secondary market transaction after the initial sale, information about the price and date of sale to you will be provided in a separate confirmation of sale.

We describe the terms of the Securities in more detail below. The Stated Principal Amount of each Security is \$25.00.

The Securities do not guarantee any return of principal at, or prior to, maturity or upon early redemption or call. Instead, at maturity, you will receive a cash payment per Security the amount of which will vary depending on the performance and path of the Index and will be reduced by the Accrued Fees as of the last Index Business Day in the Final Measurement Period as described under “— Cash Settlement Amount at Maturity.” If the amount as calculated is equal to or less than zero, the Cash Settlement Amount will be zero and you will not receive a cash payment.

If you exercise your right to have us redeem your Securities, subject to compliance with the redemption procedures, for each Security you will receive a cash payment per Security on the relevant Redemption Date equal to the Redemption Amount as described under “— Early Redemption at the Option of the Holders.” If the amount as calculated is equal to or less than zero, the Redemption Amount will be zero and you will not receive a cash payment.

Cash Settlement Amount at Maturity

The “**Maturity Date**” is February 9, 2051, which will be the third Index Business Day following the last Index Business Day in the Final Measurement Period, subject to adjustment as described below under “— Market Disruption Event.”

For each Security, unless earlier called, redeemed or accelerated upon Zero Value Event, you will receive at maturity a cash payment equal to its Closing Indicative Value on the last Index Business Day in the applicable Measurement Period. We refer to this cash payment as the “**Cash Settlement Amount**.” If the amount so calculated is equal to or less than zero, the payment will be zero.

The following graphic illustrates the formula to determine the Cash Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \text{Closing Indicative Value, on last Index Business Day in Final Measurement Period}$$

You may lose all or a substantial portion of your investment at maturity. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, you may lose all or a substantial portion of your investment at maturity. The occurrence of Loss Rebalancing Events will result in more frequent than quarterly compounding.

UBS may call the Securities prior to the Maturity Date pursuant to its Call Right. If the Securities are called by UBS, the Call Settlement Amount may be zero and you may lose all or a substantial portion of your investment. See “Specific Terms of the Securities — UBS’s Call Right”.

The “**Stated Principal Amount**” of each Security is \$25.00. The Securities may be issued and sold over time at then-current market prices which may be significantly higher or lower than the Stated Principal Amount. If the Securities undergo a split or reverse split, the Stated Principal Amount will be adjusted accordingly.

The Closing Indicative Value represents the dollar value per Security that an investor would receive on any day if it redeemed the Security that day (without giving effect to any Redemption Fee Amount).

The “**Closing Indicative Value**” per Security, will be calculated as follows:

- (a) On the Initial Trade Date, \$25.00 per Security.
- (b) On any other calendar day, prior to the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the immediately preceding calendar day × Index Factor) — Accrued Fees
- (c) From and including the first day of an applicable Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor × Residual Factor) — Accrued Fees + Measurement Period Cash Amount

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value *is less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Closing Indicative Value for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.

- (d) The minimum value of the Closing Indicative Value on any calendar day will be zero.

If a Zero Value Event occurs, the Closing Indicative Value will be equal to zero on the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “— Automatic Acceleration Upon Zero Value Event”.

The actual trading price of the Securities in the secondary market may vary significantly from their Closing Indicative Value.

If the Securities undergo a split or reverse split, the Closing Indicative Value will be adjusted accordingly.

The “**Current Principal Amount**” represents the unleveraged notional investment in the Index Constituent Securities per Security at the close of trading on any Reset Valuation Date. The notional financing amount per Security in order to generate the leveraged returns would approximately equal the Current Principal Amount at the close of trading on any Reset Valuation Date. If a Permanent Deleveraging Event occurs, the leverage of your Securities will be permanently reset to 1.0 and the notional financing amount will be equal to zero for the remaining term of the Securities. If a Zero Value Event occurs prior to your Securities permanently resetting to 1.0 at the end of the Second Permanent Deleveraging Valuation Date, then your Securities will be automatically accelerated and mandatorily redeemed and you will lose your entire investment.

The Current Principal Amount per Security, will be calculated as follows:

- (a) From and including the Initial Trade Date to and excluding the first Reset Valuation Date, \$25.00 per Security.
- (b) At the close of trading on each Reset Valuation Date after the Initial Trade Date, the Current Principal Amount of the Securities will be reset as follows:

$$\text{New Current Principal Amount} = (\text{Current Principal Amount on immediately preceding calendar day} \times \text{Index Factor}) - \text{Accrued Fees}$$

The Current Principal Amount will not change until the first Reset Valuation Date.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, such day will not be a valid Reset Valuation Date.

If the Securities undergo a split or reverse split, the Current Principal Amount will be adjusted accordingly.

At the close of trading on each Reset Valuation Date, the Current Principal Amount is reset.

The “**Reset Valuation Date**” means:

- (a) Any calendar day up to and including the Second Permanent Deleveraging Valuation Date, that is either: (i) the Initial Trade Date, (ii) a Quarterly Reset Valuation Date, (iii) a Loss Rebalancing Valuation Date (iv) the First Permanent Deleveraging Valuation Date, or (v) the Second Permanent Deleveraging Valuation Date; and
- (b) Any calendar day following the Second Permanent Deleveraging Valuation Date.

The valuation dates are defined below.

If a day that would otherwise be a Reset Valuation Date occurs on or after the first day of a Measurement Period, it will not be a valid Reset Valuation Date and the Last Reset Index Closing Level will remain the same.

The “**Quarterly Reset Valuation Date**” is the second Wednesday of January, April, July and October of each calendar year during the term of the Securities (other than an Excluded Day, as defined below), subject to adjustment as described under “— Market Disruption Event”.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding the first day of an applicable Measurement Period, and any calendar day thereafter, and (ii) any calendar day after the Second Permanent Deleveraging Valuation Date.

The “**Index Factor**” is: $1 + (\text{Leverage Factor} \times \text{Index Performance Ratio})$.

The Index Factor represents the leveraged percentage change in the Index level since the Last Reset Index Closing Level. The Index Factor *times* the applicable Current Principal Amount on the preceding calendar day represents the current value of the unleveraged notional amount per Security that is deemed invested in the Index on any calendar day. This does not reflect the Redemption Amount that an investor would receive upon early redemption on such calendar day.

The “**Residual Factor**” will be calculated as follows:

- (a) 1.0 on any calendar day, to but excluding the first day of an applicable Measurement Period.
- (b) From and including the first day of an applicable four-day Measurement Period, (a) the number of Index Business Days from, but excluding, the date of determination to, and including, the last Index Business Day in such four-day Measurement Period, *divided by* (b) four.

For example, on the first Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 3/4, on the second Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 2/4, on the third Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal 1/4 and on the last Index Business Day in an applicable four-day Measurement Period, the Residual Factor will equal zero.

- (c) On any calendar day from and including the last Index Business Day of an applicable Measurement Period, the Residual Factor will be equal to zero.

The Residual Factor is intended to approximate the percentage of the Current Principal Amount that is tracking the Index on any given day. The Residual Factor is relevant only during an applicable Measurement Period but otherwise is not a component of the Closing Indicative Value or Current Indicative Value formulas. At the close of trading on each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount and the corresponding amount of financing will be deemed converted to cash.

The “**Leverage Factor**” on any calendar day until the occurrence of a Permanent Deleveraging Event and the close of trading on the Second Permanent Deleveraging Valuation Date, will equal 2.0. If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Leverage Factor will equal 1.0.

The “**Index Performance Ratio**” on any Index Business Day will be equal to:

$$\frac{\text{Index Closing Level} - \text{Last Reset Index Closing Level}}{\text{Last Reset Index Closing Level}}$$

On any calendar day that is not an Index Business Day, the Index Closing Level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

The “**Last Reset Index Closing Level**” is the Index Closing Level on the most recent Reset Valuation Date prior to such day. The initial Last Reset Index Closing Level is the Index Closing Level on the Initial Trade Date, as reported by Bloomberg and Reuters.

The “**Index Closing Level**” on any date of determination is the closing level of the Index, as reported on Bloomberg and Reuters on such day; however, if the closing level of the Index as reported on Bloomberg (or any successor) differs from the closing level of the Index as reported on Reuters (or any successor), the Index Closing Level will be the closing level of the Index as calculated by the Index Calculation Agent. The initial Index Closing Level (which is also the first Last Reset Index Closing Level) was determined on February 4, 2021 by the Security Calculation Agent. If the closing level of an Index, as reported on Bloomberg and Reuters for any Index Business Day, is manifestly incorrect, the “**Index Closing Level**” for such Index Business Day shall be the closing level of the Index as determined by the Security Calculation Agent. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates.

On any calendar day that is not an Index Business Day, the Index Closing level will be equal to the Index Closing Level on the Index Business Day immediately preceding such calendar day.

“**Measurement Period**” means the Final Measurement Period or, if UBS exercises its Call Right, the Call Measurement Period.

The “**Current Indicative Value**” or “**intraday indicative value**”, as determined by the Security Calculation Agent, is an amount per Security, on an intraday basis on any Index Business Day, equal to:

- (a) On the Initial Trade Date, \$25.00.
- (b) On any other calendar day prior to the first day of a Measurement Period:
(Current Principal Amount on the immediately preceding calendar day × Index Factor, calculated using the Intraday Index Value) — Accrued Fees
- (c) From and including the first day of a Measurement Period, an amount per Security equal to:
(Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period × Index Factor, calculated using the Intraday Index Value × Residual Factor on the immediately preceding calendar day) – Accrued Fees + Measurement Period Cash Amount, from the immediately preceding calendar day

However, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value *is less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, the Current Indicative Value for the remainder of that day and all subsequent days will be fixed to be equal to the Measurement Period Cash Amount from the immediately preceding calendar day.
- (d) The minimum value of the Current Indicative Value on any calendar day will be zero.

The actual trading price of the Securities in the secondary market may vary significantly from their Current Indicative Value (intraday indicative value).

If a Zero Value Event occurs, the Current Indicative Value (intraday indicative value) will be equal to zero for the remainder of the day it occurs and on all future calendar days. Upon the occurrence of a Zero Value Event, investors will lose their entire investment. You will not benefit from any future exposure to the Index after the occurrence of a Zero Value Event. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

If the Securities undergo a split or reverse split, the Current Indicative Value (intraday indicative value) will be adjusted accordingly.

The “**Accrued Fees**” as of any date of determination means the Accrued Tracking Fee + the Accrued Financing Fee.

If the Securities undergo a split or reverse split, the Accrued Fees will be adjusted accordingly. The Securities are subject to an “**Accrued Tracking Fee**” per Security, calculated as follows:

- (a) On the Initial Trade Date, the Accrued Tracking Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Tracking Fee is equal to: (a) the Accrued Tracking Fee as of the immediately preceding calendar day, *plus* the Daily Tracking Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Tracking Fee is reset to be equal to the Daily Tracking Fee on such calendar day.

The “**Daily Tracking Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Tracking Fee is zero.
- (b) On any subsequent calendar day, the Daily Tracking Fee is equal to:
(1) (i) 0.95% *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Index Factor on such calendar day *times* (iv) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 365.
- (c) The minimum value of the Daily Tracking Fee on any calendar day will be zero.

The Daily Tracking Fee represents the investor fees calculated each day on the current value of the unleveraged notional amount invested in the Index per Security. These charges accrue and compound during the applicable period, and will reduce any amount you are entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Tracking Fee will be adjusted accordingly. The Securities are subject to an “**Accrued Financing Fee**” per Security calculated as follows:

- (a) On the Initial Trade Date, the Accrued Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Accrued Financing Fee is equal to:

- (1) the Accrued Financing Fee as of the immediately preceding calendar day, *plus* (2) the Daily Financing Fee on such calendar day.
- (c) On the calendar day after each Reset Valuation Date, the Accrued Financing Fee is reset to be equal to the Daily Financing Fee on such calendar day.
- (d) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Accrued Financing Fee will be equal to zero.

The “**Daily Financing Fee**” is an amount per Security calculated as follows:

- (a) On the Initial Trade Date, the Daily Financing Fee is equal to zero.
- (b) On any subsequent calendar day, the Daily Financing Fee is equal to:
- (1) (i) the Financing Rate on such calendar day *times* (ii) the Current Principal Amount on the immediately preceding calendar day *times* (iii) the Residual Factor on the immediately preceding calendar day, *divided by* (2) 360.
- (c) If a Permanent Deleveraging Event occurs, then on any calendar day following the Second Permanent Deleveraging Valuation Date, the Daily Financing Fee will be equal to zero.
- (d) The minimum value of the Daily Financing Fee on any calendar day will be zero.

The Daily Financing Fee seeks to compensate UBS for providing investors with a leveraged participation in movements of the Index and is intended to approximate the financing costs that investors may have otherwise incurred had they sought to borrow funds at a similar rate from a third party to invest in the Index. These charges accrue and compound during the applicable period, and will reduce any amount that you will be entitled to receive at maturity or upon early redemption or call.

If the Securities undergo a split or reverse split, the Daily Financing Fee will be adjusted accordingly.

The “**Financing Rate**” will equal the sum of (a) 0.95% and (b) the London interbank offered rate (ICE LIBOR) for three- month deposits in U.S. Dollars, which is displayed on Reuters page “LIBOR01” (or any successor service or page for the purpose of displaying the London interbank offered rates of major banks, as determined by the Security Calculation Agent) (“**LIBOR**”) (or any successor base rate, as described below), as of 11:00 a.m., London time, on the immediately preceding London Business Day. The minimum value of the three-month U.S. Dollar LIBOR rate (or any successor base rate, as described below) used on any calendar day will be zero. The minimum Financing Rate at any time will be 0.95%

For example, 0.21775% was the three-month U.S. Dollar LIBOR rate on January 21, 2021, which was a London Business Day. The Financing Rate on January 21, 2021 would have been equal to 0.95% + 0.21775%, or 1.16775%.

Notwithstanding the foregoing:

- If the Security Calculation Agent determines on the relevant determination date that the London interbank offered rate for deposits in U.S. dollars having an index maturity of three months in amounts of at least \$1,000,000 has been discontinued or is no longer representative of the underlying market or economic reality, then the Security Calculation Agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to such London interbank offered rate, provided that if the Security Calculation Agent determines there is an industry-accepted successor base rate, then the Security Calculation Agent shall use such successor base rate; and
- If the Security Calculation Agent has determined a substitute or successor base rate in accordance with the foregoing, the Security Calculation Agent in its sole discretion may determine the business day convention, definition of business day and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the LIBOR base rate, in a manner that is consistent with industry- accepted practices for such substitute or successor base rate.

The establishment of three-month U.S. Dollar LIBOR (or such successor base rate, as applicable) for each period by the Security Calculation Agent shall (in the absence of manifest error) be final and binding.

“**London Business Day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close and is also a day on which dealings in U.S. dollars are transacted in the London interbank market.

The “**Measurement Period Cash Amount**” is an amount per Security equal to:

- (a) \$0.00 on any calendar day, to but excluding the first day of a Measurement Period.
- (b) On the first day of a one-day Measurement Period:
- At the close of trading on such Index Business Day, (Current Principal Amount on the immediately preceding calendar day × Index Factor, on such Index Business Day).
- (c) From and including the first day of a four-day Measurement Period:

- (i) At the close of trading on each Index Business Day during the Measurement Period, the Measurement Period Cash Amount on the immediately preceding calendar day + (Current Principal Amount on the calendar day immediately preceding the first day of such Measurement Period $\times 0.25 \times$ Index Factor, on such Index Business Day); and
 - (ii) On any calendar day during the Measurement Period that is not an Index Business Day, the Measurement Period Cash Amount on the immediately preceding Index Business Day.
- (d) On any calendar day after the last Index Business Day of a Measurement Period, the Measurement Period Cash Amount on the last Index Business Day of such Measurement Period.

Notwithstanding the foregoing, if, on any day during a Measurement Period, the Current Indicative Value or the Closing Indicative Value is *less than or equal to* the Measurement Period Cash Amount from the immediately preceding calendar day, then the Measurement Period Cash Amount for that day and all subsequent days will be fixed to be equal to the Measurement Period Cash amount from the immediately preceding calendar day.

The Measurement Period Cash Amount represents the portion of the Current Principal Amount that has been converted to cash on any given day of an applicable Measurement Period and is no longer tracking the Index.

At the close of trading of each Index Business Day during a four-day Measurement Period, approximately 25% of the Current Principal Amount on the calendar day immediately preceding the first day of the Measurement Period, will be deemed converted to cash and an applicable portion of the notional financing amount will separately be deemed converted to cash as well. After the close of trading on the final Index Business Day of a four-day Measurement Period, the Measurement Period Cash Amount will represent the averaged value of the Current Principal Amount that was deemed converted to cash across the four-days of such Measurement Period. In case of a one-day Measurement Period, approximately 100% of the Current Principal Amount will be deemed converted to cash and an applicable amount of financing will separately be deemed converted to cash, at the close of trading of the first day of such Measurement Period.

If the Securities undergo a split or reverse split, the Measurement Period Cash Amount will be adjusted accordingly.

The “**Final Measurement Period**” means:

- (a) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is less than \$500,000,000, the Calculation Date, subject to adjustments as described under “— Market Disruption Event”;
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the Calculation Date is equal to or greater than \$500,000,000, the four Index Business Days from and including the Calculation Date, subject to adjustments as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the Calculation Date, will equal:

- (i) the Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Index Calculation Agent**” means the entity that calculates and publishes the level of the Index, which for each series of Securities is the entity set forth below:

<u>Title of Securities</u>	<u>Index Calculation Agent</u>
ETRACS 2x Leveraged US Dividend Factor TR ETN	S&P Dow Jones Indices
ETRACS 2x Leveraged US Growth Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged US Size Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged US Value Factor TR ETN	FTSE Russell
ETRACS 2x Leveraged MSCI US Minimum Volatility Factor TR ETN	MSCI, Inc.
ETRACS 2x Leveraged MSCI US Momentum Factor TR ETN	MSCI, Inc.
ETRACS 2x Leveraged MSCI US Quality Factor TR ETN	MSCI, Inc.

The “**Calculation Date**” means February 1, 2051, unless such day is not an Index Business Day, in which case the Calculation Date will be the next Index Business Day, subject to adjustment.

The Calculation Date represents the first Index Business Day of the Final Measurement Period.

“**Index Business Day**” means any day on which the Primary Exchange or market for trading of the Securities is scheduled to be open for trading.

“**Primary Exchange**” means, with respect to each Index Constituent Security or each constituent underlying a successor index, the primary exchange or market of trading such Index Constituent Security or such constituent underlying a successor index.

Underlying Index

The return of each series of Securities is based upon the performance of the applicable Index set forth on the cover page of the prospectus supplement. Each Index is designed to track the performance of a sector of the U.S. equity market and to reflect an investing style. We refer to the securities included in each Index as the “Index Constituent Securities” for such Index.

Early Redemption at the Option of the Holders

Subject to your compliance with the procedures described below and the potential postponements and adjustments as described under “— Market Disruption Event”, you may submit a request to have us redeem your Securities on any Index Business Day no later than 12:00 noon and a confirmation of redemption by no later than 5:00 p.m. on the same Index Business Day. You must request that we redeem a minimum of 50,000 Securities, although we reserve the right from time to time to waive this minimum redemption amount in our sole discretion on a case-by-case basis. You should not assume you will be entitled to the benefit of any such waiver. For any applicable redemption request, the “**Redemption Valuation Date**” will be the first Index Business Day following the date that the applicable redemption notice and redemption confirmation are delivered, except that we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the notice of redemption rather than the following Index Business Day. You should not assume you will be entitled to any such acceleration. To satisfy the minimum redemption amount, your broker or other financial intermediary may bundle your Securities for redemption with those of other investors to reach this minimum amount of 50,000 Securities; however, there can be no assurance that they can or will do so.

The Securities will be redeemed and the holders will receive payment for their Securities on the second Index Business Day following the applicable Redemption Valuation Date (the “**Redemption Date**”). The first Redemption Date will be the fourth Index Business Day immediately following the Initial Trade Date and the Final Redemption Date will be the fourth Index Business Day immediately preceding the Maturity Date, subject to adjustments. In addition, if we have issued a call notice, the last Redemption Valuation Date will be the fourth Index Business Day prior to the Call Settlement Date, as applicable. If a Zero Value Event occurs, the last Redemption Date will be the date on which the Zero Value Event occurred.

If a Market Disruption Event is continuing or occurs on the applicable scheduled Redemption Valuation Date with respect to any of the Index Constituent Securities, such Redemption Valuation Date may be postponed as described under “— Market Disruption Event”.

As of any Redemption Valuation Date, the “**Redemption Fee Amount**” means an amount per Security equal to:

$(0.125\% \times \text{Closing Indicative Value of the Security as of the Redemption Valuation Date})$.

If you exercise your right to have us redeem your Securities, subject to your compliance with the procedures described under “— Redemption Procedures”, for each applicable Security you will receive a cash payment on the relevant Redemption Date equal to:

Closing Indicative Value as of the Redemption Valuation Date — Redemption Fee Amount.

We refer to this cash payment as the “**Redemption Amount**.” If the amount calculated above is equal to or less than zero, the payment upon early redemption will be zero. We reserve the right from time to time to waive the Redemption Fee Amount in our sole discretion and on a case-by-case basis. There can be no assurance that we will elect to waive this fee and you should not assume you will be entitled to such fee waiver.

We will inform you of such Redemption Amount on the first Index Business Day following the applicable Redemption Valuation Date.

The redemption feature is intended to induce arbitrageurs to counteract any trading of the Securities at a discount to their indicative value, though there can be no assurance that arbitrageurs will employ the redemption feature in this manner or that they will be successful in counteracting any divergence in the market price of the Securities and their indicative value.

The following graphic illustrates the formula to determine the Redemption Amount, which has been simplified for ease of presentation:

Redemption Amount = Closing Indicative Value – Redemption Fee Amount

You may lose all or a substantial portion of your investment upon early redemption. The combined negative effect of the Accrued Fees and the Redemption Fee Amount will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees and the Redemption Fee Amount, if applicable, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon early redemption. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

The Securities may be called by UBS prior to the Maturity Date pursuant to its Call Right and, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — UBS’s Call Right” and “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event”.

Redemption Procedures

To redeem your Securities, you must instruct your broker or other person through whom you hold your Securities to take the following steps through normal clearing system channels:

- deliver a notice of redemption, which we refer to as a “**Redemption Notice**” to UBS via email no later than 12:00 noon on the Index Business Day on which you elect to exercise your redemption right. If we receive your Redemption Notice by the time specified in the preceding sentence, we will respond by sending you a form of confirmation of redemption;
- deliver the signed confirmation of redemption, which we refer to as the “**Redemption Confirmation**”, to us via email in the specified form by 5:00 p.m. on the same day. We or our affiliate must acknowledge receipt in order for your Redemption Confirmation to be effective;
- instruct your DTC custodian to book a delivery vs. payment trade with respect to your Securities on the applicable Redemption Date at a price equal to the Redemption Amount; and
- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 12:00 noon on the applicable Redemption Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, as a beneficial owner of the Securities, you should consult the brokerage firm through which you own your interest for the relevant deadline. If your broker delivers your Redemption Notice after 12:00 noon, or your Redemption Confirmation after 5:00 p.m., on the Index Business Day prior to the applicable Redemption Valuation Date, your Redemption Notice will not be effective, you will not be able to redeem your Securities until the following Redemption Date and your broker will need to complete all the required steps if you should wish to redeem your Securities on any subsequent Redemption Date. In addition, UBS may request a medallion signature guarantee or such assurances of delivery as it may deem necessary in its sole discretion. All instructions given to participants from beneficial owners of Securities relating to the right to redeem their Securities will be irrevocable. If your DTC custodian or your brokerage firm is not a current UBS customer, UBS will be required to on-board such DTC custodian or brokerage firm, in compliance with its internal policies and procedures, before it can accept your Redemption Notice, your Redemption Confirmation or otherwise process your redemption request. This on-boarding process may delay your Redemption Valuation Date and Redemption Date. Furthermore, in certain circumstances, UBS may be unable to on-board your DTC custodian or your brokerage firm.

We reserve the right from time to time to waive the minimum redemption amount or the Redemption Fee Amount in our sole discretion on a case-by-case basis. In addition, we reserve the right from time to time to accelerate, in our sole discretion on a case-by-case basis, the Redemption Valuation Date to the date on which we receive the Redemption Notice rather than the following Index Business Day. You should not assume you will be entitled to any such waiver or election to accelerate the Redemption Valuation Date.

UBS's Call Right

UBS may at its option redeem all, but not less than all, of the issued and outstanding Securities of any series. To exercise its Call Right, UBS must provide notice to the holders of such Securities (which may be provided via press release) not less than 18 calendar days prior to the Call Settlement Date specified by UBS in such notice. If we call the Securities, you will receive a cash payment equal to the Closing Indicative Value on the last Index Business Day in the Call Measurement Period. We refer to this cash payment as the “**Call Settlement Amount**.”

If the amount calculated above is equal to or less than zero, the payment upon UBS's exercise of its Call Right will be zero.

We will inform you of such Call Settlement Amount on the first Index Business Day following the last Index Business Day in the Call Measurement Period.

The holders will receive payment for their Securities on the third Index Business Day following the last Index Business Day in the Call Measurement Period (the “**Call Settlement Date**”). If a Market Disruption Event is continuing or occurs on the scheduled Call Valuation Date with respect to any of the Index Constituent Securities, such Call Valuation Date may be postponed as described under “— Market Disruption Event”.

The “**Call Measurement Period**” means:

- (a) if the Market Value of Securities outstanding at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is less than \$500,000,000, the Call Valuation Date, subject to adjustments as described under “— Market Disruption Event”; and
- (b) if the Market Value of Securities outstanding as at the close of trading on the Index Business Day immediately preceding the date we issue a notice of exercise of our Call Right is equal to or greater than \$500,000,000, the four Index Business Days from and including the Call Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

For the purpose of determining the Final Measurement Period, the “**Market Value**” of the Securities outstanding as of the close of trading on the Index Business Day immediately preceding the date of delivery by UBS of its notice to holders (which may be provided via press release) of its exercise of its Call Right will equal:

(i) The Closing Indicative Value as of such Index Business Day *times* (ii) the number of Securities outstanding as reported on Bloomberg.

The “**Call Valuation Date**” means the date we specify in our notice to holders (which may be provided via press release) of our exercise of our Call Right.

In any notice to holders exercising our Call Right, we will specify how many days are included in the Call Measurement Period.

The following graphic illustrates the formula to determine the Call Settlement Amount, which has been simplified for ease of presentation:

$$\text{Cash Settlement Amount} = \frac{\text{Closing Indicative Value, on last Index Business Day in Call Measurement Period}}{\text{Business Day in Call Measurement Period}}$$

You may lose all or a substantial portion of your investment if we exercise our Call Right. The combined negative effect of the Accrued Fees will reduce your final payment. If the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is insufficient to offset the negative effect of the Accrued Fees, or if the compounded leveraged quarterly return of the Index (or the unleveraged return of the Index, following a Permanent Deleveraging Event) is negative, you may lose all or a substantial portion of your investment upon a call. Loss Rebalancing Events will cause compounding to occur more frequently than quarterly.

In addition, upon the occurrence of a Zero Value Event, the Securities will be automatically accelerated and mandatorily redeemed by UBS. See “Specific Terms of the Securities — Automatic Acceleration Upon Zero Value Event” below.

Automatic Acceleration Upon Zero Value Event

For each series of Securities, a Zero Value Event represents the first instance when the Current Indicative Value (intraday indicative value) or the Closing Indicative Value is less than or equal to zero (other than on an Excluded Day, as defined below). It will have the effect of permanently resetting the value of your Securities to zero and accelerating the Securities. You will not benefit from any future exposure to the applicable Index after the occurrence of a Zero Value Event.

A Zero Value Event can occur only if a Permanent Deleveraging Event occurs and the Current Indicative Value (intraday indicative value) or the Closing Indicative Value declines to zero before the leverage of your Securities is reset to 1.0 at the close of trading on the Index Business Day following such event (or if such event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, the second Index Business Day following such event), as described under “Permanent Deleveraging Valuation Dates” above.

A “**Zero Value Event**” occurs if the Current Indicative Value (intraday indicative value) or the Closing Indicative Value on any Index Business Day (other than an Excluded Day, as defined below) is less than or equal to zero. From immediately after the Zero Value Event and on all future calendar days, the Current Indicative Value (intraday indicative value) and the Closing Indicative Value will be set equal to zero.

As used above, an “**Excluded Day**” means (i) any calendar day after the Second Permanent Deleveraging Valuation Date (ii) any calendar day on or after which a Zero Value Event has already occurred, and (iii) any calendar day after the last day of an applicable Measurement Period.

In the event that a Zero Value Event has occurred, UBS will issue a press release shortly after the event; provided that the failure to do so shall not affect the automatic acceleration and redemption of the Securities. The Securities will be suspended from trading intraday shortly after the event occurs and will likely not be open for trading again on NYSE Arca.

You will lose your entire investment upon the occurrence of a Zero Value Event.

In addition, we may call the Securities prior to the Maturity Date pursuant to our Call Right. See “Specific Terms of the Securities — UBS’s Call Right”.

Loss Rebalancing Events

A Loss Rebalancing Event will have the effect of deleveraging your Securities with the aim of resetting the then-current leverage to approximately 2.0. This means that after a Loss Rebalancing Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities relative to before the occurrence of the Loss Rebalancing Event.

A “**Loss Rebalancing Event**” occurs if, at any time, the Intraday Index Value on such Index Business Day (other than an Excluded Day, as used below) decreases by 20% or more from the previous Last Reset Index Closing Level.

Loss Rebalancing Events may occur multiple times over the term of the Securities and may occur multiple times during a single calendar quarter. This means both that (i) the Current Principal Amount may be reset more frequently than quarterly and (ii) the cumulative effect of compounding and fees will have increased as a result of the Loss Rebalancing Event(s). Because each Loss Rebalancing Event will have the effect of deleveraging your Securities, following a Loss Rebalancing Event your Securities will have less exposure to a potential positive gain in value relative to the exposure before the occurrence of such Loss Rebalancing Event.

As used above, an “**Excluded Day**” means (i) the Index Business Day immediately preceding any Quarterly Reset Valuation Date, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day, (ii) any Quarterly Reset Valuation Date, (iii) any Loss Rebalancing Valuation Date, (iv) the Index Business Day immediately preceding the first day of an applicable Measurement Period, if a Loss Rebalancing Event occurs after 3:15 p.m. on such day (v) any calendar day from and including the first day of an applicable Measurement Period, (vi) the First or Second Permanent Deleveraging Valuation Dates, (vii) any calendar day after the Second Permanent Deleveraging Valuation Date, and (ix) any calendar day on or after which a Zero Value Event has occurred.

“**Loss Rebalancing Valuation Date**” means:

- (a) if a Loss Rebalancing Event occurs at or prior to 3:15 p.m. on an Index Business Day, the day that such Loss Rebalancing Event occurs, subject to adjustment as described under “— Market Disruption Event”; and
- (b) if a Loss Rebalancing Event occurs after 3:15 p.m. on an Index Business Day, the first Index Business Day following the occurrence of such Loss Rebalancing Event, subject to adjustment as described under “— Market Disruption Event.”

Permanent Deleveraging Event

A Permanent Deleveraging Event will have the effect of deleveraging your Securities, with the aim of permanently resetting the then-current leverage to 1.0 over two Index Business Days. The leverage at the end of the First Permanent Deleveraging Valuation Date is reset to approximately 2.0 and the leverage at the end of the Second Permanent Deleveraging Valuation Date is reset to 1.0. This means that after a Permanent Deleveraging Event, a constant percentage increase in the Index Closing Level will have less of a positive effect on the value of your Securities than it would have had before the occurrence of the Permanent Deleveraging Event. If such an event were to occur, it most likely would occur only following a Loss Rebalancing Event and prior to the completion of the associated leverage reset to 2.0, which would generally occur at the end of the Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred or, if the Loss Rebalancing Event occurs 3:15 p.m. on an Index Business Day, at the end of the second Index Business Day following the Index Business Day on which the Loss Rebalancing Event occurred.

A “**Permanent Deleveraging Event**” occurs if, at any time on an Index Business Day (other than an Excluded Day, as defined below), the Intraday Index Value decreases by 40% or more from the Last Reset Index Closing Level. If a Permanent Deleveraging Event occurs, the Current Principal Amount of the Securities will be reset over two Index Business Days.

As used above, an “**Excluded Day**” means (i) the First or Second Permanent Deleveraging Valuation Dates, (ii) any calendar day after the Second Permanent Deleveraging Valuation Date, (iii) any day on or after which a Zero Value Event occurs, (iv) the day which is two Index Business Days prior to the first day of a Measurement Period, if a Permanent Deleveraging Event occurs after 3:15 p.m. on such day, and (v) any calendar day from and including the Index Business Day immediately preceding the first day of a Measurement Period.

“**Permanent Deleveraging Valuation Dates**” means the First Permanent Deleveraging Valuation Date and the Second Permanent Deleveraging Valuation Date, each as defined below:

- (a) The “**First Permanent Deleveraging Valuation Date**” means:
 - (i) any Index Business Day, which otherwise would have been a Loss Rebalancing Valuation Date, but on which a Permanent Deleveraging Event has occurred, subject to adjustment as described under “— Market Disruption Event”; or
 - (ii) if a Permanent Deleveraging Event occurs after 3:15 p.m. on any Index Business Day which would not otherwise have been a Loss Rebalancing Valuation Date, then the first Index Business Day following the occurrence of such Permanent Deleveraging Event, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to approximately 2.0 at the close of trading on the First Permanent Deleveraging Valuation Date.

- (b) The “**Second Permanent Deleveraging Valuation Date**” means the Index Business Day immediately following the First Permanent Deleveraging Valuation Date, subject to adjustment as described under “— Market Disruption Event.”

The leverage of your Securities will be reset to 1.0 at the close of trading on the Second Permanent Deleveraging Valuation Date.

Split or Reverse Split of the Securities

We may, at any time in our sole discretion, initiate a split or reverse split of your Securities. If we decide to initiate a split or reverse split, as applicable, we will issue a press release announcing the split or reverse split and its effective date. The date of such press release shall be deemed to be the “**announcement date**” of the split or the reverse split, the record date for any split or reverse split will be the tenth Business Day after the announcement date, and the effective date will be the next Business Day after the record date.

If the Securities undergo a split or reverse split, we will adjust the Current Principal Amount, Closing Indicative Value, Current Indicative Value, Accrued Fees, Measurement Period Cash Amount and other relevant terms of the Securities accordingly. For example, if the Securities undergo a 4:1 split, every investor who holds a Security via The Depository Trust Company (“DTC”) on the relevant record date will, after the split, hold four Securities, and adjustments will be made as described below. The Current Principal Amount on such record date will be *divided by* four to reflect the 4:1 split. The adjusted Current Principal Amount will be rounded to eight decimal places. The split or reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The split will not occur if we exercise our Call Right before it becomes effective.

In the case of a reverse split, the Current Principal Amount and other relevant terms of the Securities will be adjusted accordingly and we will determine in our sole discretion the manner in which we will address odd numbers of Securities (commonly referred to as “partials”). For example, if the Securities undergo a 1:4 reverse split, every investor who holds four Securities via DTC on the relevant record date will, after the reverse split, hold only one Security and the Current Principal Amount of the Securities on such record date will be multiplied by four to reflect the 1:4 reverse split. The adjusted Current Principal Amount will be rounded to eight decimal places. The reverse split will become effective at the opening of trading of the Securities on the Index Business Day immediately following the record date. The reverse split will not occur if we exercise our Call Right before it becomes effective.

Holders who own a number of Securities on the record date that is not evenly divisible by the reverse split divisor (which in the case of a 1:4 reverse split, for example, will be 4) will receive the same treatment as all other holders for the maximum number of Securities they hold that is evenly divisible by the reverse split divisor. We will determine in our sole discretion the manner in which we compensate holders for their remaining or “partial” Securities when we announce the reverse split, though our current intention is to provide holders with a cash payment for their partials on the 17th Business Day following the announcement date in an amount equal to the appropriate percentage of the Closing Indicative Value of the reverse split-adjusted Securities on the 15th Business Day following the announcement date. For example, in the case of a 1:4 reverse split, a holder who held 23 Securities via DTC on the record date would receive five post-reverse split Securities on the immediately following Business Day, and a cash payment on the 17th Business Day following the announcement date that is equal to 3/4 of the Current Principal Amount of the reverse split-adjusted Securities on the 15th Business Day following the announcement date.

Security Calculation Agent

UBS Securities LLC will act as the Security Calculation Agent. The Security Calculation Agent will be solely responsible for all determinations and calculations regarding the value of the Securities, including, among other things, at maturity or upon early redemption or call, or at other times, the Current Principal

Amount, Current Indicative Value (which we also refer to as the intraday indicative value), Closing Indicative Value, Market Disruption Events, Business Days, Index Business Days, the Leverage Factor, the Index Factor, the Index Performance Ratio, the Residual Factor, the Index Closing Level, the Financing Rate, the Accrued Fees (including determining any successor to the LIBOR base rate), the Redemption Fee Amount, the Cash Settlement Amount, if any, that we will pay you at maturity, the Redemption Amount, if any, that we will pay you upon redemption, the Call Settlement Amount, that we will pay you if we call the Securities, whether a Loss Rebalancing Event has occurred, whether a Permanent Deleveraging Event has occurred and whether any day is an Index Business Day and all such other matters as may be specified elsewhere herein as matters to be determined by the Security Calculation Agent. If any Intraday Index Value as published by Bloomberg on any Index Business Day is manifestly incorrect, the Security Calculation Agent may base its determination of whether a Loss Rebalancing Event, Permanent Deleveraging Event or Zero Value Event shall have occurred on such Index Business Day on its own determination of such Intraday Index Value. In making such determination, the Security Calculation Agent may consider any relevant information, including, without limitation, relevant market data in the relevant market supplied by one or more third parties or from internal sources or affiliates. The Security Calculation Agent will also be responsible for determining whether the Index has been discontinued and whether there has been a material change in the Index. The Security Calculation Agent will make all such determinations and calculations in its sole discretion, and absent manifest error, all determinations of the Security Calculation Agent will be conclusive for all purposes and binding on us, you, and all other persons having an interest in the Securities, without liability on the part of the Security Calculation Agent. You will not be entitled to any compensation from us for any loss suffered as a result of any determinations or calculations made by the Security Calculation Agent. We may appoint a different Security Calculation Agent from time to time after the date of the prospectus supplement without your consent and without notifying you.

The Security Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of the amount to be paid at maturity or upon early redemption or call, on or prior to 12:00 noon on the Index Business Day immediately preceding the Maturity Date, any Redemption Date or any Call Settlement Date.

All dollar amounts related to determination of the Accrued Fees, the Current Principal Amount, and any Redemption Amount, Redemption Fee Amount, Call Settlement Amount or Cash Settlement Amount per Security will be rounded to the nearest ten- thousandth, with five one hundred-thousandths rounded upward (*e.g.*, .76545 would be rounded up to .7655); and all dollar amounts paid to any holder of Securities will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Event

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing during a four-day Measurement Period, the Index Closing Level for such day will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. The remaining Index Business Days in the Measurement Period will be postponed accordingly, and the remaining Index Business Days in the Measurement Period will resume again following the suspension of the Market Disruption Event. For example, if the four-day Measurement Period for purposes of calculating the Call Settlement Amount, is scheduled for June 2, June 3, June 4 and June 5, and there is a Market Disruption Event with respect to the Index on June 2, but no other Market Disruption Event during such Call Measurement Period, then June 3 will become the first Index Business Day of the Measurement Period, June 4th the second Index Business Day, June 5th the third Index Business Day and the next Index Business Day after June 5th would be the final day of the Measurement Period. The same approach would be applied if there is a Market Disruption Event during a four-day Final Measurement Period.

To the extent a Market Disruption Event with respect to the Index has occurred or is continuing on the Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or any Reset Valuation Date, the Index Closing Level for such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date will be determined by the Security Calculation Agent or one of its affiliates on the first succeeding Index Business Day on which a Market Disruption Event does not occur or is not continuing with respect to the Index. For example, if the Redemption Valuation Date, for purposes of calculating a Redemption Amount, is based on the Index Closing Level on June 2 and there is a Market Disruption Event with respect to the Index on June 2, then the Index Closing Level on June 3 will be used to calculate the Redemption Amount, assuming that no such Market Disruption Event has occurred or is continuing on June 3.

In no event, however, will any postponement pursuant to either of the two immediately preceding paragraphs result in the affected Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date (in the event that the Call Measurement Period is the Call Valuation Date), Calculation Date (in the event that the Final Measurement Period is the Calculation Date) or Reset Valuation Date occurring more than five Index Business Days following the day originally scheduled to be such Index Business Day of the Measurement Period or such Redemption Valuation Date, Call Valuation Date, Calculation Date or Reset Valuation Date. If a Market Disruption Event has occurred or is continuing with respect to the Index on the fifth Index Business Day following the date originally scheduled to be such Index Business Day of the Measurement Period or any Redemption Valuation Date, Call Valuation Date, Calculation Date or any Reset Valuation Date, the Security Calculation Agent or one of its affiliates will determine the Index Closing Level based on its good faith estimate of the Index Closing Level that would have prevailed on such fifth Index Business Day but for such Market Disruption Event.

Any of the following will be a “**Market Disruption Event**” with respect to the Index, in each case as determined by the Security Calculation Agent in its sole discretion:

- (a) suspension, absence or material limitation of trading in a material number of Index Constituent Securities, whether by reason of movements in price exceeding limits permitted by the Primary Exchange or otherwise;
- (b) suspension, absence or material limitation of trading in option or futures contracts relating to the Index or to a material number of Index Constituent Securities in the primary market or markets for those contracts;
- (c) the Index is not published; or
- (d) in any other event, if the Security Calculation Agent determines in its sole discretion that the event materially interferes with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge with respect to the Securities that we or our affiliates have effected or may effect as described in the section entitled “Use of Proceeds and Hedging.”

The following events will not be Market Disruption Events with respect to the Index:

- (a) a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market; and
- (b) a decision to permanently discontinue trading in the option or futures contracts relating to the Index or any Index Constituent Securities.

For this purpose, an “absence of trading” in the primary securities market on which option or futures contracts related to the Index or any Index Constituent Securities are traded will not include any time when that market is itself closed for trading under ordinary circumstances.

Default Amount on Acceleration

If an event of default occurs and the maturity of the Securities is accelerated, we will pay the default amount in respect of the principal of the Securities at maturity. We describe the default amount below under “— Default Amount.”

For the purpose of determining whether the holders of our Medium-Term Notes, Series B, of which the Securities are a part, are entitled to take any action under the indenture, we will treat the outstanding principal amount of the Medium-Term Notes, Series B, as constituting the outstanding principal amount of the Securities. Although the terms of the Securities may differ from those of the other Medium-Term Notes, Series B, holders of specified percentages in principal amount of all Medium-Term Notes, Series B, together in some cases with other series of our debt securities, will be able to take action affecting all the Medium-Term Notes, Series B, including the Securities. This action may involve changing some of the terms that apply to the Medium-Term Notes, Series B, accelerating the maturity of the Medium-Term Notes, Series B after a default or waiving some of our obligations under the indenture. We discuss these matters in “Medium-Term Notes, Series B” above under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “Description of Debt Securities We May Offer — Modification and Waiver of Covenants.”

Default Amount

The default amount for the Securities on any day will be an amount, in U.S. dollars as determined by the Security Calculation Agent in its sole discretion, for the aggregate Stated Principal Amount of the Securities, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all our payment and other obligations with respect to the Securities as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to the Securities. That cost will equal:

- the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*
- the reasonable expenses, including reasonable attorneys’ fees, incurred by the holders of the Securities in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for the Securities, which we describe below, the holders of the Securities and/or we may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest — or, if there is only one, the only — quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two Business Days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

Default Quotation Period

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third Index Business Day after that day, unless:

- no quotation of the kind referred to above is obtained, or
- every quotation of that kind obtained is objected to within five Index Business Days after the due date as described above.

If either of these two events occurs, the default quotation period will continue until the third Index Business Day after the first Index Business Day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five Index Business Days after that first Index Business Day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two Index Business Day objection period have not ended before the Calculation Date, then the default amount will equal the Stated Principal Amount of the Securities.

Qualified Financial Institutions

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either:

- A-1 or higher by Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., or any successor, or any other comparable rating then used by that rating agency, or
- P-1 or higher by Moody’s Investors Service or any successor, or any other comparable rating then used by that rating agency.

Discontinuance of or Adjustments to the Index or Termination of Our License Agreements with the Index Sponsors; Alteration of Method of Calculation

If (i) an Index Sponsor or the Index Calculation Agent announces that it intends to discontinue, or discontinues, publication of, or otherwise fails to publish, the Index, (ii) our license agreement with the Index Sponsor terminates or (iii) the Index Sponsor or Index Calculation Agent does not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, and, in each case, any other person or entity publishes an index licensed to UBS that the Security Calculation Agent determines is comparable to the Index and for which the Index Constituent Securities and/or their unit weighting are available to the Security Calculation Agent (such index being referred to herein as a “**successor index**”), and the Security Calculation Agent approves such index as a successor index, then on and after the date determined by the Security Calculation Agent, the Security Calculation Agent will determine the Index Closing Level on the applicable dates of determination and the amount payable at maturity or upon early redemption or call and all other related payments terms by reference to such successor index.

Upon any selection by the Security Calculation Agent of a successor index, the Security Calculation Agent will cause written notice of the successor index and the date on and after which the Index Closing Level will be determined by reference thereto be furnished to the trustee, to us and to the holders of the Securities.

If an Index Sponsor or Index Calculation Agent discontinues publication of the Index, our license agreement with the Index Sponsor terminates or the Index Sponsor or Index Calculation Agent do not make the Index Constituent Securities and/or their unit weighting available to the Security Calculation Agent, prior to, and such discontinuation, termination or unavailability is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or

on any Reset Valuation Date, as applicable, or on any other relevant date on which the Index Closing Level is to be determined and the Security Calculation Agent determines that no successor index is available at such time, or the Security Calculation Agent has previously selected a successor index and publication of such successor index is discontinued prior to, and such discontinuation is continuing on the Calculation Date or any Index Business Day during a Measurement Period, or on the Redemption Valuation Date or on any Reset Valuation Date, or any other relevant date on which the Index Closing Level is to be determined, then the Security Calculation Agent will determine the Index Closing Level using the Index Closing Level on the last Index Business Day immediately prior to such discontinuation or unavailability, as adjusted for certain corporate actions. In such event, the Security Calculation Agent will cause notice thereof to be furnished to the trustee, to us and to the holders of the Securities.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

In addition, if an Index Replacement Event (as defined below) occurs at any time and the Index Sponsor or anyone else publishes an index that the Security Calculation Agent determines is comparable to the Index (the “**Substitute Index**”), then the Security Calculation Agent may elect, in its sole discretion, to permanently replace the original Index with the Substitute Index for all purposes under the Securities, and all provisions described in the prospectus supplement as applying to the Index will thereafter apply to the Substitute Index instead. In such event, the Security Calculation Agent will make such adjustments, if any, to any level of the Index or Substitute Index that is used for purposes of the Securities as it determines are appropriate in the circumstances. If the Security Calculation Agent elects to replace the original Index with a Substitute Index, then the Security Calculation Agent will determine all amounts hereunder, Current Principal Amount, Current Indicative Value (intraday indicative value), Closing Indicative Value, Index Factor, Index Performance Ratio, Residual Factor, Accrued Fees, Index Closing Levels on the applicable dates of determination, all other related payment terms and the amount payable at maturity or upon early redemption or call by reference to such Substitute Index. If the Security Calculation Agent so elects to replace the original Index with a Substitute Index, the Security Calculation Agent will cause written notice thereof to be furnished to the trustee, to us and to the holders of the Securities of the Securities.

An “**Index Replacement Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities included in the Index (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on any of these parties’ ability to perform their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;

- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after February 4, 2021 that (i) makes it illegal for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities included in the Index or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) materially increases the cost to us, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the Securities, (iii) has a material adverse effect on the ability of us, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the Securities, or (iv) materially affects our ability to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (c) any event that occurs on or after February 4, 2021 that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange (as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for UBS AG or its affiliates to hold, acquire or dispose of the Index Constituent Securities or options, futures, swaps or other derivatives on the Index or on the Index Constituent Securities (including but not limited to exchange-imposed position limits), (ii) for us, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the Securities, or (iii) for us to issue or transact in exchange traded notes similar to the Securities, each as determined by the Security Calculation Agent;
- (d) any event, as determined by the Security Calculation Agent, as a result of which we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the Securities, or realize, recover or remit the proceeds of any such transaction or asset; or
- (e) as determined by the Security Calculation Agent, the primary exchange or market for trading for the Securities, if any, announces that pursuant to the rules of such exchange or market, as applicable, the Securities cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of the Index or successor index, as applicable, may adversely affect the value of the Securities.

If at any time the method of calculating the Index, a successor index or a Substitute Index, or the value thereof, is changed in a material respect, or if the Index or a successor or Substitute Index is in any other way modified so that the Index Closing Level of the Index or such successor or Substitute Index does not, in the opinion of the Security Calculation Agent, fairly represent the Index Closing Level of the Index or such successor or Substitute Index had such changes or modifications not been made, then the Security Calculation Agent will make such calculations and adjustments as, in the good faith judgment of the Security Calculation Agent, may be necessary in order to arrive at an Index Closing Level of an index comparable to the Index or such successor index, as the case may be, as if such changes or modifications had not been made, and the Security Calculation Agent will calculate the Index Closing Level for the Index or such successor or Substitute Index with reference to the Index or such successor or Substitute Index, as adjusted. The Security Calculation Agent will accordingly calculate the Index Closing Level, the Index Performance Ratio, the Last Reset Index Closing Level, the Accrued Fees, and any Redemption Amount, Redemption Fee Amount, Cash Settlement Amount or Call Settlement Amount, and all related payment terms based directly or indirectly on the Index Closing Level calculated by the Security Calculation Agent. Accordingly, if the method of calculating the Index or a successor or Substitute Index is modified so that the level of the Index or such successor or Substitute Index is a fraction or multiple of what it would have been if there had been no such modification (*e.g.*, due to a rebasing of the Index), which, in turn, causes the Index Closing Level of the Index or such successor or Substitute Index to be a fraction of what it would have been if there had been no such modification, then the Security Calculation Agent will make such calculations and adjustments in order to arrive at an Index Closing Level for the Index or such successor or Substitute Index as if it had not been modified (*e.g.*, as if such rebasing had not occurred).

In the event that the Security Calculation Agent elects to replace the Index with a successor index or a Substitute Index, UBS may, in its sole discretion, amend the title of the Securities in order to remove reference the former Index and to make such other changes to the title of the Securities as it considers necessary or desirable to reflect the name and/or characteristics of the relevant successor index or Substitute Index, as applicable.

All determinations and adjustments to be made by the Security Calculation Agent may be made in the Security Calculation Agent's sole discretion. See "Risk Factors — Risks Relating to Creditworthiness, Conflicts of Interest, Hedging Activities and Regulation of UBS — There are potential conflicts of interest between you and the Security Calculation Agent" in the prospectus supplement for a discussion of certain conflicts of interest which may arise with respect to the Security Calculation Agent.

Manner of Payment and Delivery

Any payment on or delivery of the Securities at maturity or upon early redemption or call will be made to accounts designated by you and approved by us, or at the corporate trust office of the trustee in New York City, but only when the Securities are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Reissuances or Reopened Issues

We may, at our sole discretion, “reopen” or reissue any series of Securities. We issued the Securities initially in an amount having the aggregate Stated Principal Amount specified on the cover of the prospectus supplement. We may issue additional Securities in amounts that exceed the amount on the cover at any time, without your consent and without notifying you. The Securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the Securities. For more information, please refer to “Description of Debt Securities We May Offer — Amounts That We May Issue” in “Medium-Term Notes, Series B” above.

These further issuances, if any, will be consolidated to form a single class with the originally issued Securities of the same series and will have the same CUSIP number and will trade interchangeably with such Securities immediately upon settlement. Any additional issuances will increase the aggregate Stated Principal Amount of the outstanding Securities of the class. The price of any additional offering will be determined at the time of pricing of that offering.

Booking Branch

The Securities will be booked through UBS AG, London Branch.

Clearance and Settlement

The DTC participants that hold the Securities through DTC on behalf of investors will follow the settlement practices applicable to equity securities in DTC’s settlement system with respect to the primary distribution of the Securities and secondary market trading between DTC participants.



Additional Tier 1 capital (Basel III-compliant)

Issuer	UBS Group AG, or other employing entities of the UBS group
ISIN	—
Issue Date	17.02.2023 ¹
Currency	USD
Nominal (million)	2
Coupon Rate	7.80% / 4.85% ³
Maturity Date	perpetual ⁴
First Call Date	1 March 2028 ⁵

¹ Issuance date which corresponds to grant date for employees.

² Nominal amount at issuance with respective exchange rate used is disclosed on UBS website. For information on the outstanding amount, refer to the table “Capital and total loss-absorbing capacity instruments of UBS Group AG consolidated and UBS AG consolidated and standalone — Key features”.

³ Applicable to USD-denominated and CHF-denominated issues, respectively, and not payable to EU/UK MRTs and SMFs, both as defined within this document.

⁴ Subject to forfeiture and vesting provisions.

⁵ For SMFs, as defined within this document, partly on 1 March 2029 and 1 March 2030.

Deferred Contingent Capital Plan 2022/23 (DCCP)

Summary description of the terms and conditions of DCCP as a capital instrument

Overview	Issues under the DCCP are made by UBS Group AG or certain other employing entities to key contributors at UBS Group AG or any of its subsidiaries (together, the “Group”). Eligibility is determined by the Issuer and issues are granted at its sole discretion.
Issuer	UBS Group AG or certain other employing entities of the UBS group
Type of instrument	<p>Non-transferable contingent right against the Issuer to receive</p> <ul style="list-style-type: none">(i) discretionary annual interest equivalent payments on the nominal value of a hypothetical perpetual Additional Tier 1 (“AT1”) security notionally issued by UBS Group AG at grant (the “Notional Bond”), and(ii) at redemption, as determined by the Issuer in its sole discretion, either the value of the Notional Bond in cash or perpetual AT1 securities issued or guaranteed by UBS Group AG or any other member of the Group of equivalent value (in each case net of any applicable taxes and social security contributions to the employee’s account). <p>For DCCP awarded to EU/UK Material Risk Takers (MRT)¹ and individuals performing designated UK Senior Management Functions (SMF)² there will be no contingent right to receive discretionary annual interest payments; only non-transferable contingent right against the Issuer to receive the amount indicated under (ii) above.</p>
Conditional Interest Equivalents	<p>Subject to (i) the conditions set out under “Trigger Event or Viability Event” and “Forfeiture and Vesting Provisions” and (ii) the discretionary and mandatory interest cancellation provisions as set out below, interest equivalents will be payable annually in arrears on the nominal value of the Notional Bond at a rate of 4.85% for CHF-denominated issues and 7.80% for USD-denominated issues.</p> <p>The Issuer may, at its discretion, elect to cancel any interest equivalent that is otherwise scheduled to be paid on any interest payment date. In addition, without limitation to the foregoing, payments of interest equivalents will not be made unless sufficient distributable items (i.e., net profits carried forward and freely distributable reserves) of UBS Group AG are available.</p>
Maturity date	<p>Issues under the DCCP have no scheduled maturity date.</p> <p>Notwithstanding the foregoing, but subject to the conditions set out under “Trigger Event or Viability Event” and “Forfeiture and Vesting Provisions”, issues to US taxpayers will mature and be settled on or about 1 March 2028 (the “First Call Date”). The Notional Bond underlying such issues will have no scheduled maturity date.</p>

¹ Based on relevant European Banking Authority’s (“EBA”) Regulatory Technical Standards (RTS) for EU MRTs, and for UK MRTs, based on the EBA RTS and the UK Prudential Regulation Authority’s and Financial Conduct Authority’s rules.

² As defined by the UK’s Prudential Regulation Authority and Financial Conduct Authority.

Trigger Event or Viability Event	<p>All outstanding issuances under the DCCP (or, in case of a Trigger Event (as defined below), all outstanding awards under the DCCP in relation to which a Trigger Event has occurred) will be automatically and permanently written down to zero, no further amounts will be due or paid thereunder and such awards will be permanently cancelled, if:</p> <ul style="list-style-type: none"> a) the reported Common Equity Tier 1 ratio of the Group set forth in UBS Group AG's quarterly financial accounts, results, the annual report, or in any reviewed interim measurement published upon the instruction of the Swiss Financial Market Supervisory Authority FINMA ("FINMA"), falls below 7% or, with respect to grants awarded to Group Executive Board members, 10%, as of the relevant balance sheet date (each, a "Trigger Event"); b) FINMA provides UBS Group AG with written notice of its determination that amounts outstanding under the DCCP are required to be written down to prevent the insolvency, bankruptcy or failure of UBS Group AG; or c) UBS Group AG has received a commitment of direct or indirect extraordinary support from the public sector that FINMA has determined and confirmed in writing to UBS Group AG is necessary to prevent the insolvency, bankruptcy or failure of UBS Group AG (an event described in clause (b) or (c), a "Viability Event").
Conditional Redemption	<p>Subject to the conditions set out under "Trigger Event or Viability Event" and "Forfeiture and Vesting Provisions", the Issuer may, at its sole discretion, redeem any issuance by way of either a cash payment or delivery of AT1 securities on the First Call Date, provided that, where the Issuer has elected to redeem an issuance by way of a cash payment, a redemption will not occur until FINMA has approved it. DCCP issuances to SMFs may be redeemed by the Issuer on the same basis, in equal quantities on 1 March 2029 and 1 March 2030.</p> <p>However, the following exceptions will apply:</p> <ul style="list-style-type: none"> a) For SMFs who are members of the Group Executive Board, the DCCP Issuances may be redeemed on the same basis with 23% redeemed on 1 March 2029 and 77% redeemed on 1 March 2030 <p>In case of a redemption by way of delivery of securities, the securities will be perpetual AT1 securities issued or guaranteed by UBS or any other member of the Group with substantially the same terms and provisions consistent with the Notional Bond, including but not limited to, the same Trigger and Liability Events. Furthermore, the aggregate value of the AT1 securities shall, subject to rounding, equal the value of the Notional Bond (net of any applicable taxes and social security contributions).</p> <p>For issuances granted to US taxpayers, redemption will be on the First Call Date, such that if FINMA approval for any cash settlement has not been given, issuances must be settled by delivery of AT1 securities, on or about that date. Any AT1 securities delivered at settlement shall be marketable subordinated UBS Group AG debt instruments in the AT1 category having such terms and provisions consistent with the Notional Bond terms and provisions as determined by UBS Group AG in its sole discretion on or prior to the Grant Date.</p>

Forfeiture and Vesting Provisions	<p>Subject to the conditions set out under “Trigger Event or Viability Event”, issuances under the DCCP will vest after a minimum of five years.</p> <p>An outstanding unvested issuance under the DCCP will generally be forfeited and cancelled, and no further interest equivalents will generally be due or paid, due to termination of employment or harmful acts by the employee. In certain circumstances, vesting of outstanding awards under the DCCP may be subject to conditions relating to the performance of the Group and/or the employee’s business division and similar conditions. In addition, with respect to any award granted to Group Executive Board members, if the Group does not generate an adjusted pre-tax profit with respect to any financial year ending during or after the year of grant, but prior to the relevant vesting date, the nominal amount of such award will be reduced by 20% (for each year the Group does not generate an adjusted pre-tax profit) of the nominal amount of such award on the relevant grant date.</p> <p>In case of death (in or out of service) or disability, an outstanding unvested issuance under the DCCP will vest on the date that the employee’s employment contract terminates due to death or disability or any other date as determined by the Issuer.</p> <p>Vesting may be accelerated, and forfeiture provisions may be relaxed, in case of early termination of the DCCP by, or change of control in, UBS Group AG.</p>
Status	<p>In the event of the liquidation or winding up of the Issuer under circumstances that do not coincide with the occurrence of a Trigger Event or a Viability Event, the holder will have a claim ranking junior to all rights and claims of priority creditors of the Issuer (i.e., claims in respect of obligations of the Issuer (i) that are unsubordinated or (ii) that are subordinated (including Tier 2 instruments) and do not, or are expressly not stated to, rank pari passu with, or junior to, the Issuer’s obligations under the DCCP or any of the Issuer’s obligations ranking pari passu with the Issuer’s obligations under the DCCP).</p>
Governing Law	<p>Swiss law / in certain cases, New York law</p>

CERTIFICATION UNDER SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002

I, Ralph Hamers, certify that:

1. I have reviewed this annual report on Form 20-F of UBS Group AG;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: March 6, 2023

/s/ Ralph Hamers

Name: Ralph Hamers

Title: Group Chief Executive Officer

CERTIFICATION UNDER SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002

I, Ralph Hamers, certify that:

1. I have reviewed this annual report on Form 20-F of UBS AG;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: March 6, 2023

/s/ Ralph Hamers

Name: Ralph Hamers

Title: President of the Executive Board

CERTIFICATION UNDER SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002

I, Sarah Youngwood, certify that:

1. I have reviewed this annual report on Form 20-F of UBS Group AG;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: March 6, 2023

/s/ Sarah Youngwood

Name: Sarah Youngwood

Title: Group Chief Financial Officer

CERTIFICATION UNDER SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002

I, Sarah Youngwood, certify that:

1. I have reviewed this annual report on Form 20-F of UBS AG;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: March 6, 2023

/s/ Sarah Youngwood

Name: Sarah Youngwood
Title: Chief Financial Officer

CERTIFICATION PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, Chapter 63 of Title 18, United States Code), the undersigned officer of UBS Group AG, a Swiss corporation (the “Company”), hereby certifies, to such officer’s knowledge, that:

The Annual Report on Form 20-F for the year ended December 31, 2022 (the “Report”) of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. §§ 78m or 78o(d)) and information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 6, 2023

/s/ Ralph Hamers

Name: Ralph Hamers

Title: Group Chief Executive Officer

The foregoing certification is being furnished solely pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, Chapter 63 of Title 18, United States Code) and is not being filed as part of the Report or as a separate disclosure document.

CERTIFICATION PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, Chapter 63 of Title 18, United States Code), the undersigned officer of UBS AG, a Swiss banking corporation (the “Company”), hereby certifies, to such officer’s knowledge, that:

The Annual Report on Form 20-F for the year ended December 31, 2022 (the “Report”) of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. §§ 78m or 78o(d)) and information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 6, 2023

/s/ Ralph Hamers

Name: Ralph Hamers

Title: President of the Executive Board

The foregoing certification is being furnished solely pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, Chapter 63 of Title 18, United States Code) and is not being filed as part of the Report or as a separate disclosure document.

CERTIFICATION PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, Chapter 63 of Title 18, United States Code), the undersigned officer of UBS Group AG, a Swiss corporation (the “Company”), hereby certifies, to such officer’s knowledge, that:

The Annual Report on Form 20-F for the year ended December 31, 2022 (the “Report”) of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. §§ 78m or 78o(d)) and information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 6, 2023

/s/ Sarah Youngwood

Name: Sarah Youngwood
Title: Group Chief Financial Officer

The foregoing certification is being furnished solely pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, Chapter 63 of Title 18, United States Code) and is not being filed as part of the Report or as a separate disclosure document.

CERTIFICATION PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, Chapter 63 of Title 18, United States Code), the undersigned officer of UBS AG, a Swiss banking corporation (the “Company”), hereby certifies, to such officer’s knowledge, that:

The Annual Report on Form 20-F for the year ended December 31, 2022 (the “Report”) of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. §§ 78m or 78o(d)) and information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 6, 2023

/s/ Sarah Youngwood

Name: Sarah Youngwood
Title: Chief Financial Officer

The foregoing certification is being furnished solely pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, Chapter 63 of Title 18, United States Code) and is not being filed as part of the Report or as a separate disclosure document.

Zurich, 06 March 2023

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in each of the following registration statements of UBS Group AG, UBS AG and their affiliates:

- (1) on Form F-3 (Registration Numbers 333-263376), and each related prospectus currently outstanding under such registration statement,
- (2) on Form S-8 (Registration Numbers 333-200634; 333-200635; 333-200641; 333-200665; 333-215254; 333-215255; 333-228653; 333-230312; and 333-249143), and each related prospectus currently outstanding under any of the aforementioned registration statements,
- (3) the base prospectus of Corporate Asset Backed Corporation (CABCO) dated 23 June 2004 (Registration Number 333-111572),
- (4) the Form 8-K of CABCO dated 23 June 2004 (SEC FileNumber 001-13444), and
- (5) the Prospectus Supplements relating to the CABCO Series 2004-101 Trust dated 10 May 2004 (Registration Number 033-91744) and 17 May 2004 (Registration Number 033-91744-05),

of our reports dated 03 March 2023, with respect to the consolidated financial statements of UBS Group AG and the effectiveness of internal control over financial reporting of UBS Group AG, included in this Annual Report (Form 20-F) for the year ended 31 December 2022, filed with the Securities and Exchange Commission.

/s/ Ernst & Young Ltd

Zurich, 06 March 2023

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in each of the following registration statements of UBS Group AG, UBS AG and their affiliates:

- (1) on Form F-3 (Registration Numbers 333-263376), and each related prospectus currently outstanding under such registration statement,
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- (4) the Form 8-K of CABCO dated 23 June 2004 (SEC FileNumber 001-13444), and
- (5) the Prospectus Supplements relating to the CABCO Series 2004-101 Trust dated 10 May 2004 (Registration Number 033-91744) and 17 May 2004 (Registration Number 033-91744-05),

of our reports dated 03 March 2023, with respect to the consolidated financial statements of UBS AG and the effectiveness of internal control over financial reporting of UBS AG, included in this Annual Report (Form 20-F) for the year ended 31 December 2022, filed with the Securities and Exchange Commission.

/s/ Ernst & Young Ltd

ANNEX B: UBS GROUP AG'S REPORTS OF FOREIGN PRIVATE ISSUER ON FORM 6-K

B-1

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER

**PURSUANT TO RULE 13a-16 OR 15d-16 UNDER
THE SECURITIES EXCHANGE ACT OF 1934**

Date: March 29, 2023

UBS Group AG

Commission File Number: 1-36764

UBS AG

Commission File Number: 1-15060

(Registrants' Names)

Bahnhofstrasse 45, Zurich, Switzerland, and
Aeschenvorstadt 1, Basel, Switzerland
(Address of principal executive offices)

Indicate by check mark whether the registrants file or will file annual reports under cover of
Form 20-F or Form 40-F.

Form 20-F

Form 40-F

This Form 6-K consists of the news release which appear immediately following this page.



Investor Relations
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Media Relations
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29 March 2023

News Release

Ad hoc announcement pursuant to Article 53 of the SIX Exchange Regulation Listing Rules

The Board of Directors of UBS Group AG (UBS) announces today that it has named Sergio P. Ermotti as its new Group Chief Executive Officer, effective 5 April 2023

- **The Board made the decision to appoint Sergio P. Ermotti as Chief Executive Officer in light of UBS's new priorities following its planned acquisition of Credit Suisse**
- **Ralph Hamers will remain at UBS and work alongside Sergio P. Ermotti as an advisor during a transition period to ensure a successful closure of the transaction and a smooth hand-over**
- **The Board wishes to express its deep gratitude to Ralph Hamers for his outstanding leadership, steering UBS to record results in two successive years, and for his instrumental role in bringing about the Credit Suisse acquisition**
-

Zurich/Basel, 29 March 2023 – Further to the announcement of 19 March 2023 regarding UBS's acquisition of Credit Suisse, the Board of Directors of UBS have appointed Sergio P. Ermotti as Group Chief Executive Officer and President of the Group Executive Board, effective on 5 April 2023, after the Annual General Meeting. He will succeed Ralph Hamers, who has agreed to step down to serve the interests of the new combination, the Swiss financial sector and the country. Ralph Hamers will remain at UBS and work alongside Sergio P. Ermotti as an advisor during a transition period to ensure a successful closure of the transaction and a smooth hand-over.

The Board took the decision in light of the new challenges and priorities facing UBS after the announcement of the acquisition.

Sergio P. Ermotti was the Group Chief Executive Officer of UBS for 9 years and successfully repositioned UBS following the severe challenges arising from the Global Financial Crisis. In particular, he built financial strength and improved resilience by putting the firm's leading global wealth and asset management business, and Swiss universal bank, at its core. He swiftly transformed the investment bank by cutting its footprint and achieved a profound culture change within the bank which allowed it to regain the trust of clients and other stakeholders, while restoring people's pride in working for UBS. This unique experience, together with his deep understanding of the financial services industry in Switzerland and globally, make Sergio P. Ermotti ideally placed to pursue the integration of Credit Suisse. Sergio P. Ermotti is currently Chairman of Swiss Re. To facilitate an orderly transition at Swiss Re, Sergio P. Ermotti will stand for re-election at its AGM on 12 April 2023 and intends to step down after the AGM, following a short hand-over period.

Since assuming the role on 1 November 2020, Ralph Hamers, together with the Group Executive Board, has successfully managed UBS through a challenging market environment and has delivered record results in two successive years. He has encouraged a strong focus on clients and on shaping and executing our strategy, while ensuring tight cost management and strong risk discipline. He has driven the digital and sustainability agenda across the firm to make them important differentiators for our clients. The financial performance and capital strengths of the group have allowed him to achieve record returns for shareholders through dividends and share repurchases, which has benefited the share price. Finally, Ralph was instrumental in delivering the acquisition of Credit Suisse under extreme circumstances, to the benefit of both banks and the stability of the Swiss financial system.

UBS Chairman Colm Kelleher said: “Ralph has been an outstanding CEO of UBS, driving the group to unprecedented success despite a challenging environment. Under his leadership UBS built the strengths that have put us in a position to stabilize Credit Suisse and ensure a successful integration. On behalf of the whole Board, I would like to express my deep respect and gratitude for all that Ralph has achieved over the last two-and-a-half years and for his instrumental role in delivering the Credit Suisse deal, as well as his understanding of the current situation and willingness to step down. While the acquisition will support UBS’s existing strategy, it imposes new priorities on us. With his unique experience, I am very confident that Sergio will deliver the successful integration that is so essential for both banks’ clients, employees and investors, and for Switzerland. I know Sergio will hit the ground running.”

Ralph Hamers said: “Integrating Credit Suisse is UBS’s single most important task and I am confident that Sergio will successfully guide the bank through this next phase. I am of course sorry to leave UBS, but circumstances have changed in ways that none of us expected. I am stepping aside in the interests of the new combined entity and its stakeholders, including Switzerland and its financial sector – it has been a pleasure and privilege to lead this great bank to where it is today. I would like to thank Colm and the Board for their support and guidance, and I wish Sergio every success. I will support him during a transition period and I know he will lead UBS very effectively in the interests of all.”

Sergio P. Ermotti said: “I am honored to be asked to lead this bank at a time that is so important for all its stakeholders and for Switzerland. I would like to express my gratitude to Ralph for steering UBS so successfully. The task at hand is an urgent and challenging one. In order to do it in a sustainable and successful way, and in the interest of all stakeholders involved, we need to thoughtfully and systematically assess all options. I am conscious of the uncertainty many feel and I promise that, together with my colleagues, our full attention will be on delivering the best possible outcome for our clients, our employees, our shareholders and the Swiss government.”

UBS Group AG and UBS AG

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Media Relations:

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UK: +44-207-567 47 14

Americas: +1-212-882 58 58

APAC: +852-297-1 82 00

www.ubs.com/media



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Notice to investors

This document and the information contained herein are provided solely for information purposes, and are not to be construed as a solicitation of an offer to buy or sell any securities or other financial instruments in Switzerland, the United States or any other jurisdiction. No investment decision relating to securities of or relating to UBS Group AG, UBS AG or their affiliates should be made on the basis of this document. Refer to UBS's fourth quarter 2019 report and its Annual Report on Form 20-F for the year ended 31 December 2018 for additional information. These reports are available at www.ubs.com/investors.

Cautionary statement regarding forward-looking statements

This document contains statements that constitute forward-looking statements. While these statements represent UBS's judgments and expectations concerning the matters described, a number of risks, uncertainties and other important factors could cause actual developments and results to differ materially from UBS's expectations. Additional information about those factors is set forth in documents furnished and filings made by UBS with the US Securities and Exchange Commission, including the fourth quarter 2022 report and the Annual Report on Form 20-F for the year ended 31 December 2022. UBS undertakes no obligation to update the information contained herein.

This Form 6-K is hereby incorporated by reference into (1) each of the registration statements of UBS AG on Form F-3 (Registration Number 333-263376), and of UBS Group AG on Form S-8 (Registration Numbers 333-200634; 333-200635; 333-200641; 333-200665; 333-215254; 333-215255; 333-228653; 333-230312; and 333-249143), and into each prospectus outstanding under any of the foregoing registration statements, (2) any outstanding offering circular or similar document issued or authorized by UBS AG that incorporates by reference any Forms 6-K of UBS AG that are incorporated into its registration statements filed with the SEC, and (3) the base prospectus of Corporate Asset Backed Corporation (“CABCO”) dated June 23, 2004 (Registration Number 333-111572), the Form 8-K of CABCO filed and dated June 23, 2004 (SEC File Number 001-13444), and the Prospectus Supplements relating to the CABCO Series 2004-101 Trust dated May 10, 2004 and May 17, 2004 (Registration Number 033-91744 and 033-91744-05).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrants have duly caused this report to be signed on their behalf by the undersigned, thereunto duly authorized.

UBS Group AG

By: /s/ David Kelly

Name: David Kelly

Title: Managing Director

By: /s/ Ella Campi

Name: Ella Campi

Title: Executive Director

UBS AG

By: /s/ David Kelly

Name: David Kelly

Title: Managing Director

By: /s/ Ella Campi

Name: Ella Campi

Title: Executive Director

Date: March 29, 2023

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER

**PURSUANT TO RULE 13a-16 OR 15d-16 UNDER
THE SECURITIES EXCHANGE ACT OF 1934**

Date: April 24, 2023

UBS Group AG

Commission File Number: 1-36764

UBS AG

Commission File Number: 1-15060

(Registrants' Names)

Bahnhofstrasse 45, Zurich, Switzerland, and
Aeschenvorstadt 1, Basel, Switzerland
(Address of principal executive offices)

Indicate by check mark whether the registrants file or will file annual reports under cover of
Form 20-F or Form 40-F.

Form 20-F

Form 40-F

This Form 6-K consists of the news release which appear immediately following this page.



Investor Relations
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Media Relations
Tel. +41-44-234 85 00

24 April 2023

News Release

Ad hoc announcement pursuant to Article 53 of the SIX Exchange Regulation Listing Rules

Christian Bluhm to continue as Group Chief Risk Officer

Zurich, 24 April 2023 – Due to the planned acquisition of Credit Suisse, Christian Bluhm has agreed to remain in his role as Group Chief Risk Officer and member of the Group Executive Board for the foreseeable future, therefore delaying the handover to Damian Vogel that was originally planned for 1 May.

Damian Vogel has been appointed to the newly created role of Group Risk Control Head of Integration. In this role, he will lead risk control related integration activities and define the best possible set-up for the firm's combined Group Risk Control function.

Group Chief Executive Officer Sergio P. Ermotti: "Having both senior risk leaders actively engaged will help ensure that we're well prepared and appropriately set up in an area that is crucial for our future success. I want to thank Christian for his readiness to continue in his role as Group Chief Risk Officer and Damian for his significant efforts in leading our integration efforts and designing our future risk function."

UBS Group AG and UBS AG

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Americas: +1-212-882 58 58

APAC: +852-297-1 82 00

www.ubs.com/media

Cautionary Statement Regarding Forward-Looking Statements

This media release contains statements that constitute "forward-looking statements," including but not limited to management's outlook for UBS's financial performance, statements relating to the anticipated effect of transactions and strategic initiatives on UBS's business and future development and goals or intentions to achieve climate, sustainability and other social objectives. While these forward-looking statements represent UBS's judgments, expectations and objectives concerning the matters described, a number of risks, uncertainties and other important factors could cause actual developments and results to differ materially from UBS's expectations. For a discussion of the risks and uncertainties that may affect UBS's future results please refer to the "Risk Factors" and other sections of UBS's most recent Annual Report on Form 20-F, quarterly reports and other information furnished to or filed with the US Securities and Exchange Commission on Form 6-K, and the cautionary statement on the last page of this presentation. UBS is not under any obligation to (and expressly disclaims any obligation to) update or alter its forward-looking statements, whether as a result of new

information, future events, or otherwise.

This Form 6-K is hereby incorporated by reference into (1) each of the registration statements of UBS AG on Form F-3 (Registration Number 333-263376), and of UBS Group AG on Form S-8 (Registration Numbers 333-200634; 333-200635; 333-200641; 333-200665; 333-215254; 333-215255; 333-228653; 333-230312; and 333-249143), and into each prospectus outstanding under any of the foregoing registration statements, (2) any outstanding offering circular or similar document issued or authorized by UBS AG that incorporates by reference any Forms 6-K of UBS AG that are incorporated into its registration statements filed with the SEC, and (3) the base prospectus of Corporate Asset Backed Corporation (“CABCO”) dated June 23, 2004 (Registration Number 333-111572), the Form 8-K of CABCO filed and dated June 23, 2004 (SEC File Number 001-13444), and the Prospectus Supplements relating to the CABCO Series 2004-101 Trust dated May 10, 2004 and May 17, 2004 (Registration Number 033-91744 and 033-91744-05).

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UBS Group AG

By: /s/ David Kelly

Name: David Kelly

Title: Managing Director

By: /s/ Ella Campi

Name: Ella Campi

Title: Executive Director

UBS AG

By: /s/ David Kelly

Name: David Kelly

Title: Managing Director

By: /s/ Ella Campi

Name: Ella Campi

Title: Executive Director

Date: April 24, 2023

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER

**PURSUANT TO RULE 13a-16 OR 15d-16 UNDER
THE SECURITIES EXCHANGE ACT OF 1934**

Date: April 25, 2023

UBS Group AG

Commission File Number: 1-36764

UBS AG

Commission File Number: 1-15060

(Registrants' Name)

Bahnhofstrasse 45, Zurich, Switzerland
Aeschenvorstadt 1, Basel, Switzerland
(Address of principal executive offices)

Indicate by check mark whether the registrants file or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F

Form 40-F

This Form 6-K consists of the First Quarter 2023 Report of UBS Group AG, which appears immediately following this page.

UBS Group

First quarter 2023 report





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Corporate calendar UBS Group AG

Publication of the second quarter 2023 report:	Tuesday, 25 July 2023*
Publication of the third quarter 2023 report:	Tuesday, 24 October 2023
Publication of the fourth quarter 2023 report:	Tuesday, 30 January 2024

* Publication date may change depending on the timing of the closing of the anticipated acquisition of Credit Suisse

Corporate calendar UBS AG

Publication of the first quarter 2023 report:	Thursday, 27 April 2023
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Publication dates of future quarterly and annual reports and results are made available as part of the corporate calendar of UBS AG at ubs.com/investors.

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Office of the Group Company Secretary

The Group Company Secretary handles inquiries directed to the Chairman or to other members of the Board of Directors.

UBS Group AG, Office of the Group Company Secretary
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Shareholder Services

UBS's Shareholder Services team, a unit of the Group Company Secretary's office, manages relationships with shareholders and the registration of UBS Group AG registered shares.

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P.O. Box, CH-8098 Zurich, Switzerland

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TDD for foreign shareholders
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Our key figures

USD m, except where indicated	As of or for the quarter ended		
	31.3.23	31.12.22	31.3.22
Group results			
Total revenues	8,744	8,029	9,382
Credit loss expense / (release)	38	7	18
Operating expenses	7,210	6,085	6,634
Operating profit / (loss) before tax	1,495	1,937	2,729
Net profit / (loss) attributable to shareholders	1,029	1,653	2,136
Diluted earnings per share (USD) ¹	0.32	0.50	0.61
Profitability and growth²			
Return on equity (%)	7.2	11.7	14.3
Return on tangible equity (%)	8.1	13.2	16.0
Return on common equity tier 1 capital (%)	9.1	14.7	19.0
Return on leverage ratio denominator, gross (%)	3.4	3.2	3.5
Cost / income ratio (%)	82.5	75.8	70.7
Effective tax rate (%)	30.7	14.5	21.4
Net profit growth (%)	(51.8)	22.6	17.1
Resources²			
Total assets	1,053,134	1,104,364	1,139,922
Equity attributable to shareholders	56,754	56,876	58,855
Common equity tier 1 capital ³	44,590	45,457	44,593
Risk-weighted assets ³	321,660	319,585	312,037
Common equity tier 1 capital ratio (%) ³	13.9	14.2	14.3
Going concern capital ratio (%) ³	17.9	18.2	19.2
Total loss-absorbing capacity ratio (%) ³	34.3	33.0	34.2
Leverage ratio denominator ³	1,014,446	1,028,461	1,072,953
Common equity tier 1 leverage ratio (%) ³	4.40	4.42	4.16
Liquidity coverage ratio (%) ⁴	161.9	163.7	159.6
Net stable funding ratio (%)	117.7	119.8	121.7
Other			
Invested assets (USD bn) ⁵	4,160	3,957	4,380
Personnel (full-time equivalents)	73,814	72,597	71,697
Market capitalization ¹	64,322	57,848	65,775
Total book value per share (USD) ¹	18.59	18.30	17.57
Tangible book value per share (USD) ¹	16.54	16.28	15.67

¹ Refer to the "Share information and earnings per share" section of this report for more information. ² Refer to the "Targets, aspirations and capital guidance" section of our Annual Report 2022 for more information about our performance targets. ³ Based on the Swiss systemically relevant bank framework as of 1 January 2020. Refer to the "Capital management" section of this report for more information. ⁴ The disclosed ratios represent quarterly averages for the quarters presented and are calculated based on an average of 64 data points in the first quarter of 2023, 63 data points in the fourth quarter of 2022 and 64 data points in the first quarter of 2022. Refer to the "Liquidity and funding management" section of this report for more information. ⁵ Consists of invested assets for Global Wealth Management, Asset Management and Personal & Corporate Banking. Refer to "Note 31 Invested assets and net new money" in the "Consolidated financial statements" section of our Annual Report 2022 for more information.

Alternative performance measures

An alternative performance measure (an APM) is a financial measure of historical or future financial performance, financial position or cash flows other than a financial measure defined or specified in the applicable recognized accounting standards or in other applicable regulations. We report a number of APMs in the discussion of the financial and operating performance of the Group, our business divisions and our Group Functions. We use APMs to provide a more complete picture of our operating performance and to reflect management's view of the fundamental drivers of our business results. A definition of each APM, the method used to calculate it and the information content are presented under "Alternative performance measures" in the appendix to this report. Our APMs may qualify as non-GAAP measures as defined by US Securities and Exchange Commission (SEC) regulations.

UBS Group

Management report

Terms used in this report, unless the context requires otherwise

“UBS,” “UBS Group,” “UBS Group AG consolidated,” “Group,” “the Group,” “we,” “us” and “our”	UBS Group AG and its consolidated subsidiaries
“UBS AG consolidated”	UBS AG and its consolidated subsidiaries
“UBS Group AG” and “UBS Group AG standalone”	UBS Group AG on a standalone basis
“UBS AG” and “UBS AG standalone”	UBS AG on a standalone basis
“UBS Switzerland AG” and “UBS Switzerland AG standalone”	UBS Switzerland AG on a standalone basis
“UBS Europe SE consolidated”	UBS Europe SE and its consolidated subsidiaries
“UBS Americas Holding LLC” and “UBS Americas Holding LLC consolidated”	UBS Americas Holding LLC and its consolidated subsidiaries
“1m”	One million, i.e., 1,000,000
“1bn”	One billion, i.e., 1,000,000,000
“1trn”	One trillion, i.e., 1,000,000,000,000

In this report, unless the context requires otherwise, references to any gender shall apply to all genders.

Acquisition of Credit Suisse

Following discussions jointly initiated by the Swiss Federal Department of Finance (the FDF), the Swiss Financial Market Supervisory Authority (FINMA) and the Swiss National Bank (the SNB), UBS Group AG and Credit Suisse Group AG entered into a merger agreement on 19 March 2023 that provides for the acquisition of Credit Suisse Group AG by UBS Group AG. On the terms and subject to the conditions set forth in the merger agreement and in accordance with applicable provisions of Swiss law, including the emergency ordinance issued by the Swiss Federal Council on 19 March 2023 (the Emergency Ordinance), Credit Suisse Group AG will merge with UBS Group AG, with UBS Group AG being the absorbing company, which will continue to operate, and Credit Suisse Group AG being the absorbed legal entity, which will cease to exist, (the Transaction). Subsidiaries of Credit Suisse Group AG will become subsidiaries of UBS Group AG. Upon completion of the Transaction, each ordinary Credit Suisse Group AG share with a nominal value of CHF 0.04 issued and outstanding immediately prior to completion, including Credit Suisse Group AG shares represented by Credit Suisse Group AG American depositary shares (ADS) subject to the payment of certain fees to the Credit Suisse Group AG depository, will be converted into the right to receive the merger consideration consisting of 1/22.48 UBS Group AG ordinary shares with a nominal value of CHF 0.10 per share. The purchase price is approximately USD 3.7bn on the basis of the UBS share price as of 31 March 2023.

Completion of the Transaction is subject to conditions, including approvals or non-objection by regulatory authorities and relevant competition authorities. UBS has obtained regulatory approvals from FINMA, the UK Prudential Regulatory Authority, the US Federal Reserve Board, and competition law approvals or non-objection from various authorities. Swiss competition approval was granted under the Emergency Ordinance, and the waiting period under the US Hart–Scott–Rodino Antitrust Improvements Act expired on 24 April 2023. UBS is seeking other required approvals on an expedited basis and currently expects to complete the Transaction in the second quarter of 2023. The Emergency Ordinance provides for a loss-sharing agreement under which the Swiss Confederation would bear up to CHF 9bn of losses on certain non-core assets (as designated by UBS) after the first CHF 5bn of losses, which will be borne by UBS. Further loss sharing between UBS and the Swiss Confederation, if necessary, will be subject to ongoing assessment. FINMA also ordered a write-off of CHF 15.8bn principal amount of Credit Suisse Group AG’s additional tier 1 (AT1) instruments.

In connection with the Transaction, the SNB confirmed access to its existing liquidity facilities for UBS and Credit Suisse. Under the Emergency Ordinance, UBS and Credit Suisse also have access to additional SNB liquidity up to CHF 100bn on a combined basis, with the loans under the facility having preferential rights in bankruptcy proceedings. Credit Suisse may also borrow up to an additional CHF 100bn from the SNB backed by a Swiss federal guarantee (public liquidity backstop), with the loans also having preferential rights in bankruptcy proceedings. The Emergency Ordinance will expire within six months of its issuance date, and the relevant measures thereunder will need to be codified into law by the Swiss Parliament.

After the closing of the Transaction, we expect to continue to be capitalized well above our common equity tier 1 capital ratio guidance of 13% and our regulatory minimum capital requirements.

UBS Group AG will continue to prepare its financial statements under International Financial Reporting Standards (IFRS), with the US dollar as its reporting currency. Under IFRS we will record the assets acquired and liabilities assumed, including contingent liabilities, at fair value as of the closing date of the merger. We will record the excess of the net fair value of assets and liabilities acquired over the purchase consideration as negative goodwill, which is recognized as a gain in the income statement, and the amount of which is expected to be material.

We remain committed to a progressive cash dividend; however, we have suspended share repurchases.

We expect the combination with Credit Suisse to strengthen our position as a leading and truly global wealth manager, with around USD 5trn in invested assets. We also expect to reinforce our position as a leading universal bank in Switzerland and to enhance our complementary investment banking and asset management capabilities, while adding strategic scale in the most attractive growth markets.

We intend to actively reduce the risk and resource consumption of Credit Suisse's investment banking business. We plan for the Investment Bank (excluding assets and liabilities that we define as non-core) to account for around 25% of Group risk-weighted assets and to remain focused and strategically aligned to the products and capabilities that are most relevant to our wealth management clients.

While acknowledging the magnitude of the integration and restructuring of Credit Suisse, we believe that this combination presents a unique opportunity to bring significant, long-term value to all of our stakeholders.

Recent developments

Regulatory and legal developments

Sanctions related to the Russia–Ukraine war

In the first quarter of 2023, the Swiss Federal Council implemented the remaining measures of the 9th and 10th sanctions packages imposed by the EU against Russia in December 2022 and February 2023, respectively. The measures include additional export restrictions and more detailed reporting obligations with regard to frozen assets. UBS's sanctions programs are designed to comply with sanctions across multiple jurisdictions, including those imposed by the United Nations, Switzerland, the EU, the UK and the US.

Other developments

Change of Group Chief Executive Officer

As announced on 29 March 2023, Sergio P. Ermotti has been appointed by the Board of Directors as Group Chief Executive Officer and President of the Group Executive Board, effective 5 April 2023, after the Annual General Meeting (the AGM). Sergio P. Ermotti succeeded Ralph A.J.G. Hamers, who will remain at UBS and will work alongside Sergio P. Ermotti as an advisor during a transition period to ensure a smooth handover.

Previously announced change of Group Chief Risk Officer

Due to the planned acquisition of Credit Suisse, Christian Bluhm has agreed to remain in his role as Group Chief Risk Officer and member of the Group Executive Board. Damian Vogel has been appointed to lead risk control related integration activities.

Capital returns

At the AGM on 5 April 2023, the shareholders approved a dividend of USD 0.55 per share. The dividend was paid on 14 April 2023 to shareholders of record on 13 April 2023.

Shares acquired under our 2022 share repurchase program totaled 299m as of 31 March 2023 for a total acquisition cost of USD 5,245m (CHF 5,010m). A new two-year share repurchase program of up to USD 6bn was approved by shareholders at the AGM. However, we have temporarily suspended repurchases under the share repurchase programs due to the anticipated acquisition of Credit Suisse.

› Refer to the “Share information and earnings per share” section of this report for more information

Share capital – nominal currency change

In the second quarter of 2023, the share capital currency of UBS Group AG will be changed from the Swiss franc to the US dollar, as approved by the shareholders at the AGM on 5 April 2023. Total equity reported for UBS Group AG consolidated and standalone will not be affected by this change.

› Refer to the “Share information and earnings per share” section of this report for more information

Group performance

Income statement

USD m	For the quarter ended			% change from	
	31.3.23	31.12.22	31.3.22	4Q22	1Q22
Net interest income	1,388	1,589	1,771	(13)	(22)
Other net income from financial instruments measured at fair value through profit or loss	2,681	1,876	2,226	43	20
Net fee and commission income	4,606	4,359	5,353	6	(14)
Other income	69	206	32	(66)	119
Total revenues	8,744	8,029	9,382	9	(7)
Credit loss expense / (release)	38	7	18	430	108
Personnel expenses	4,620	4,122	4,920	12	(6)
General and administrative expenses	2,065	1,420	1,208	45	71
Depreciation, amortization and impairment of non-financial assets	525	543	506	(3)	4
Operating expenses	7,210	6,085	6,634	18	9
Operating profit / (loss) before tax	1,495	1,937	2,729	(23)	(45)
Tax expense / (benefit)	459	280	585	64	(22)
Net profit / (loss)	1,037	1,657	2,144	(37)	(52)
Net profit / (loss) attributable to non-controlling interests	8	4	8	116	1
Net profit / (loss) attributable to shareholders	1,029	1,653	2,136	(38)	(52)
Comprehensive income					
Total comprehensive income	1,833	2,208	(72)	(17)	
Total comprehensive income attributable to non-controlling interests	13	17	26	(24)	(50)
Total comprehensive income attributable to shareholders	1,820	2,190	(98)	(17)	

Results: 1Q23 vs 1Q22

Operating profit before tax decreased by USD 1,234m, or 45%, to USD 1,495m, reflecting a decrease in total revenues and higher operating expenses. Total revenues decreased by USD 638m, or 7%, to USD 8,744m, which included negative foreign currency effects. Net fee and commission income decreased by USD 747m, mainly due to negative market performance and lower levels of client activity. This decrease was partly offset by a USD 72m increase in net interest income and other net income from financial instruments measured at fair value through profit or loss and a USD 37m increase in other income. Operating expenses increased by USD 576m, or 9%, to USD 7,210m, including an offsetting impact from positive foreign currency effects. The increase was largely due to USD 857m higher general and administrative expenses, mainly driven by an increase in provisions in Non-core and Legacy Portfolio in Group Functions related to the US residential mortgage-backed securities (RMBS) litigation matter. Personnel expenses decreased by USD 300m, mainly reflecting lower variable compensation, partly offset by an increase in salary costs.

Total revenues: 1Q23 vs 1Q22

Net interest income and other net income from financial instruments measured at fair value through profit or loss

Total combined net interest income and other net income from financial instruments measured at fair value through profit or loss increased by USD 72m to USD 4,069m.

Global Wealth Management increased by USD 361m to USD 1,803m, largely attributable to higher interest income, mainly due to an increase in deposit revenues, reflecting the benefits from higher interest rates, partly offset by shifts to lower-margin deposit products. Clients also continued to reallocate deposits into money market funds and US-government securities, leading to lower average deposit volumes. Loan revenues decreased, driven by lower average loan volumes and margins.

Personal & Corporate Banking increased by USD 169m to USD 834m, largely attributable to higher interest income, mainly driven by higher deposit margins due to rising interest rates, and higher loan revenues, partly offset by lower deposit fees. The first quarter of 2022 included a benefit from the Swiss National Bank deposit exemption.

The Investment Bank decreased by USD 344m to USD 1,660m, mainly due to a USD 419m decrease in Derivatives & Solutions revenues, driven by Equity Derivatives and Foreign Exchange due to lower levels of client activity and volatility, partly offset by an increase in Credit revenues. This decrease was partly offset by a USD 98m increase in Financing, largely driven by higher revenues in Prime Brokerage, a recovery, and higher revenues in Clearing and Equities Financing.

Group Functions was negative USD 223m compared with negative USD 112m, mainly reflecting the net effects of accounting asymmetries, including hedge accounting ineffectiveness, within Group Treasury, higher funding costs within Group Services related to deferred tax assets and higher gains in the prior-year quarter on auction rate securities in Non-core and Legacy Portfolio.

› Refer to “Note 3 Net interest income” in the “Consolidated financial statements” section of this report for more information about net interest income

Net interest income and other net income from financial instruments measured at fair value through profit or loss

USD m	For the quarter ended			% change from	
	31.3.23	31.12.22	31.3.22	4Q22	1Q22
Net interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	962	1,226	1,363	(21)	(29)
Net interest income from financial instruments measured at fair value through profit or loss and other	425	363	408	17	4
Other net income from financial instruments measured at fair value through profit or loss	2,681	1,876	2,226	43	20
Total	4,069	3,464	3,997	17	2
Global Wealth Management	1,803	1,731	1,442	4	25
of which: net interest income	1,491	1,499	1,141	(1)	31
of which: transaction-based income from foreign exchange and other intermediary activity ¹	312	232	301	34	4
Personal & Corporate Banking	834	751	665	11	25
of which: net interest income	705	633	535	11	32
of which: transaction-based income from foreign exchange and other intermediary activity ¹	129	118	130	9	(1)
Asset Management	(6)	(9)	(2)	(38)	274
Investment Bank ²	1,660	1,036	2,004	60	(17)
Global Banking	73	31	115	132	(37)
Global Markets	1,588	1,004	1,888	58	(16)
Group Functions	(223)	(44)	(112)	412	99

¹ Mainly includes spread-related income in connection with client-driven transactions, foreign currency translation effects and income and expenses from precious metals, which is included in the income statement line Other net income from financial instruments measured at fair value through profit or loss. The amounts reported on this line are one component of Transaction-based income in the management discussion and analysis in the “Global Wealth Management” and “Personal & Corporate Banking” sections of this report. ² Investment Bank information is provided at the business-line level rather than by financial statement reporting line, in order to reflect the underlying business activities, which is consistent with the structure of the management discussion and analysis in the “Investment Bank” section of this report.

Net fee and commission income

Net fee and commission income decreased by USD 747m to USD 4,606m.

Fees for portfolio management and related services and investment fund fees decreased by USD 253m and USD 210m, respectively, driven by Global Wealth Management and Asset Management. These decreases mainly reflect negative market performance.

Net brokerage fees decreased by USD 189m to USD 831m, driven by the Investment Bank, mainly in relation to cash equities, and by Global Wealth Management, largely reflecting lower levels of client activity across all regions.

M&A and corporate finance fees decreased by USD 59m to USD 178m, reflecting lower revenues from merger and acquisition transactions in our Global Banking business within the Investment Bank.

Underwriting fees decreased by USD 45m to USD 127m, driven by lower debt and equity underwriting revenues from public offerings in the Investment Bank.

› Refer to “Note 4 Net fee and commission income” in the “Consolidated financial statements” section of this report for more information

Other income

Other income was USD 69m, compared with USD 32m in the prior-year quarter. The increase was largely driven by gains recognized on repurchases of UBS’s own debt instruments, as well as a higher share of net profits from associates and joint ventures, mainly attributable to UBS recognizing a USD 23m valuation loss in the prior-year quarter in Personal & Corporate Banking and Global Wealth Management on its equity ownership of SIX group.

Credit loss expense / release: 1Q23 vs 1Q22

Total net credit loss expenses were USD 38m, compared with net credit loss expenses of USD 18m in the prior-year quarter, reflecting USD 26m net credit loss expenses related to stage 1 and 2 positions and USD 12m net credit loss expenses related to stage 3 positions.

› Refer to “Note 7 Expected credit loss measurement” in the “Consolidated financial statements” section of this report for more information

Credit loss expense / (release)

<i>USD m</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
For the quarter ended 31.3.23						
Stages 1 and 2	15	15	0	(5)	0	26
Stage 3	0	0	0	12	0	12
Total credit loss expense / (release)	15	16	0	7	0	38
For the quarter ended 31.12.22						
Stages 1 and 2	3	(6)	0	1	1	(2)
Stage 3	0	3	0	7	0	9
Total credit loss expense / (release)	3	(4)	0	8	0	7
For the quarter ended 31.3.22						
Stages 1 and 2	(5)	13	0	3	0	11
Stage 3	(2)	10	0	0	0	7
Total credit loss expense / (release)	(7)	23	0	4	0	18

Operating expenses: 1Q23 vs 1Q22

Operating expenses

<i>USD m</i>	For the quarter ended			% change from	
	31.3.23	31.12.22	31.3.22	4Q22	1Q22
Personnel expenses	4,620	4,122	4,920	12	(6)
<i>of which: salaries and variable compensation</i>	3,885	3,478	4,169	12	(7)
<i>of which: variable compensation – financial advisors¹</i>	1,111	1,073	1,220	4	(9)
General and administrative expenses	2,065	1,420	1,208	45	71
<i>of which: net expenses for litigation, regulatory and similar matters</i>	721	50	57		
<i>of which: other general and administrative expenses</i>	1,345	1,370	1,151	(2)	17
Depreciation, amortization and impairment of non-financial assets	525	543	506	(3)	4
Total operating expenses	7,210	6,085	6,634	18	9

¹ Consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.

Personnel expenses

Personnel expenses decreased by USD 300m to USD 4,620m, mainly driven by lower variable compensation, including lower financial advisor compensation following a decrease in compensable revenues. This was partly offset by higher salary costs following annual salary adjustments and an increase in the number of employees, partly offset by foreign currency translation effects.

› Refer to “Note 5 Personnel expenses” in the “Consolidated financial statements” section of this report for more information

General and administrative expenses

General and administrative expenses increased by USD 857m to USD 2,065m, largely driven by a USD 665m increase in provisions in Non-core and Legacy Portfolio in Group Functions related to the US RMBS litigation matter. In addition, there were higher expenses for consulting and legal fees, including USD 70m of costs associated with the anticipated acquisition of Credit Suisse, mainly related to advisory fees. There were also increases in travel and entertainment, technology and outsourcing costs.

We believe that the industry continues to operate in an environment in which expenses associated with litigation, regulatory and similar matters will remain elevated for the foreseeable future and we continue to be exposed to a number of significant claims and regulatory matters. The outcome of many of these matters, the timing of a resolution, and the potential effects of resolutions on our future business, financial results or financial condition are extremely difficult to predict.

- › Refer to “**Note 6 General and administrative expenses**” in the “**Consolidated financial statements**” section of this report for more information
- › Refer to “**Note 13 Provisions and contingent liabilities**” in the “**Consolidated financial statements**” section of this report for more information about litigation, regulatory and similar matters
- › Refer to the “**Regulatory and legal developments**” and “**Risk factors**” sections of our **Annual Report 2022** for more information about litigation, regulatory and similar matters

Tax: 1Q23 vs 1Q22

We recognized income tax expenses of USD 459m for the first quarter of 2023, representing an effective tax rate of 30.7%, compared with USD 585m and an effective tax rate of 21.4% for the first quarter of 2022. Current tax expenses were USD 487m, compared with USD 364m. Current tax expenses included USD 365m in respect of the taxable profits of UBS Switzerland AG and other entities and USD 122m in respect of the US Corporate Alternative Minimum Tax (CAMT) that was introduced effective 1 January 2023. There was a net deferred tax benefit of USD 28m, compared with a deferred tax expense of USD 221m. This includes a benefit of USD 122m that resulted from the recognition of deferred tax assets (DTAs) for tax credits carried forward in relation to CAMT and a benefit of USD 60m in respect of an increase in the expected value of future tax deductions for deferred compensation awards, due to an increase in the Group’s share price during the quarter. These benefits were partly offset by expenses of USD 154m that primarily relate to the amortization of DTAs previously recognized in relation to tax losses carried forward and deductible temporary differences of UBS Americas Inc. The pre-tax expense that was recognized in respect of the increase in provisions related to the US RMBS litigation matter did not result in any tax benefit.

Excluding any potential effects from the remeasurement of DTAs in connection with the business planning process or that result from any material jurisdictional statutory tax rate changes that could be enacted, we expect a tax rate for the remaining nine months of 2023 for the current UBS consolidation group of around 23% (excluding the effects of the anticipated acquisition of Credit Suisse).

Total comprehensive income attributable to shareholders

In the first quarter of 2023, total comprehensive income attributable to shareholders was USD 1,820m, reflecting net profit of USD 1,029m and other comprehensive income (OCI), net of tax, of USD 791m.

OCI related to cash flow hedges was USD 606m, mainly reflecting net unrealized gains on US-dollar hedging derivatives, resulting from decreases in the relevant US-dollar long-term interest rates, and net losses on hedging instruments that were reclassified from OCI to the income statement as the hedged forecast cash flows affected profit or loss.

Foreign currency translation OCI was USD 106m, mainly resulting from a strengthening of the Swiss franc (1%) and the euro (1%) against the US dollar.

OCI related to own credit on financial liabilities designated at fair value was USD 51m, primarily due to a widening of our own credit spreads.

Defined benefit plan OCI was USD 31m, reflecting net pre-tax OCI related to our non-Swiss pension plans of USD 46m, mainly driven by the UK pension plan, and a tax benefit of USD 6m, partly offset by negative pre-tax OCI in our Swiss pension plan of USD 21m.

- › Refer to “**Statement of comprehensive income**” in the “**Consolidated financial statements**” section of this report for more information
- › Refer to “**Reconciliation of IFRS equity to Swiss SRB common equity tier 1 capital**” in the “**Capital management**” section of this report for more information about the effects of OCI on common equity tier 1 capital
- › Refer to “**Note 20 Fair value measurement**” in the “**Consolidated financial statements**” section of our **Annual Report 2022** for more information about own credit on financial liabilities designated at fair value
- › Refer to “**Note 26 Post-employment benefit plans**” in the “**Consolidated financial statements**” section of our **Annual Report 2022** for more information about OCI related to defined benefit plans



Sensitivity to interest rate movements

As of 31 March 2023, we estimate that a parallel shift in yield curves by +100 basis points could lead to a combined increase in annual net interest income of approximately USD 1.4bn in Global Wealth Management and Personal & Corporate Banking in the first year after such a shift. Of this increase, approximately USD 0.8bn, USD 0.4bn and USD 0.1bn would result from changes in Swiss franc, US dollar and euro interest rates, respectively. A parallel shift in yield curves by –100 basis points could lead to a combined decrease in annual net interest income of approximately USD 1.3bn in Global Wealth Management and Personal & Corporate Banking in the first year after such a shift, showing similar currency contributions as for the aforementioned increase in rates.

These estimates are based on a hypothetical scenario of an immediate change in interest rates, equal across all currencies and relative to implied forward rates as of 31 March 2023 applied to our banking book. These estimates further assume no change to balance sheet size and structure, constant foreign exchange rates and no specific management action. These estimates do not represent a forecast of our net interest income and actual changes in net interest income could differ significantly from the amounts referred to above.

- Refer to “Interest rate risk in the banking book“ in the “Risk management and control” section of our Annual Report 2022 for more information about the economic value of equity and net interest income sensitivity

Key figures and personnel

Below we provide an overview of selected key figures of the Group. For further information about key figures related to capital management, refer to the “Capital management” section of this report.

Cost / income ratio: 1Q23 vs 1Q22

The cost / income ratio was 82.5%, compared with 70.7%, mainly reflecting a decrease in total revenues and an increase in operating expenses. Excluding the effect of the increase in provisions in Non-core and Legacy Portfolio in Group Functions related to the US RMBS litigation matter, the cost / income ratio would have been 74.9%.

Personnel: 1Q23 vs 4Q22

The number of personnel employed as of 31 March 2023 increased by 1,217 to 73,814 (full-time equivalents).

Equity, CET1 capital and returns

<i>USD m, except where indicated</i>	As of or for the quarter ended		
	31.3.23	31.12.22	31.3.22
Net profit			
Net profit attributable to shareholders	1,029	1,653	2,136
Equity			
Equity attributable to shareholders	56,754	56,876	58,855
Less: goodwill and intangible assets	6,272	6,267	6,383
Tangible equity attributable to shareholders	50,481	50,609	52,472
Less: other CET1 deductions	5,891	5,152	7,878
CET1 capital	44,590	45,457	44,593
Returns			
Return on equity (%)	7.2	11.7	14.3
Return on tangible equity (%)	8.1	13.2	16.0
Return on CET1 capital (%)	9.1	14.7	19.0

Return on common equity tier 1 capital: 1Q23 vs 1Q22

The annualized return on our common equity tier 1 (CET1) capital was 9.1%, compared with 19.0%, driven by lower net profit attributable to shareholders and an increase in average CET1 capital. Excluding the effect of the increase in provisions in Non-core and Legacy Portfolio in Group Functions related to the US RMBS litigation matter, the annualized return on CET1 capital would have been 14.9%.

Common equity tier 1 capital: 1Q23 vs 4Q22

During the first quarter of 2023, our CET1 capital decreased by USD 0.9bn to USD 44.6bn, mainly as operating profit before tax of USD 1.5bn, with associated current tax expenses of USD 0.5bn, was more than offset by share repurchases of USD 1.3bn and dividend accruals of USD 0.4bn.

Risk-weighted assets: 1Q23 vs 4Q22

Risk-weighted assets (RWA) increased by USD 2.1bn to USD 321.7bn, reflecting increases of USD 1.1bn from model updates and USD 1.0bn from currency effects, partly offset by a USD 0.1bn decrease from asset size and other movements.

Common equity tier 1 capital ratio: 1Q23 vs 4Q22

Our CET1 capital ratio decreased to 13.9% from 14.2%, reflecting the aforementioned decrease in CET1 capital and the increase in RWA.

Leverage ratio denominator: 1Q23 vs 4Q22

The leverage ratio denominator (the LRD) decreased by USD 14.0bn to USD 1,014.4bn, driven by an USD 18.7bn decrease in asset size and other movements, partly offset by a USD 4.7bn increase due to currency effects.

Common equity tier 1 leverage ratio: 1Q23 vs 4Q22

Our CET1 leverage ratio decreased to 4.40% from 4.42%, due to the aforementioned decrease in CET1 capital, largely offset by the decrease in the LRD.

Going concern leverage ratio: 1Q23 vs 4Q22

Our going concern leverage ratio was unchanged at 5.7%, reflecting the aforementioned decrease in the LRD, offset by the decrease in the going concern capital.

Outlook

Persistently high inflation and tight labor markets in many countries in the first quarter of 2023 caused central banks to continue to raise interest rates. The recent liquidity concerns in the banking sector and geopolitical tensions, particularly between the US and China and with regard to the Russia–Ukraine war, led to significant uncertainty in asset valuations and the outlook for economic growth. Against this backdrop, clients continued to diversify cash holdings by investing their deposits into money market instruments, while sentiment and activity levels remained muted in the first quarter of 2023.

The macroeconomic situation going forward remains uncertain, and while concerns about the stability of banks have abated, they have not gone away. As a result, client activity levels could remain subdued in the second quarter of 2023. Weak client sentiment may affect net new assets in our asset-gathering businesses; however, we expect net interest income will remain at higher levels, compared with last year, in the current interest rate environment.

We are focused on completing the acquisition of Credit Suisse, most likely in the second quarter of 2023, which will advance our strategy, particularly in Global Wealth Management and Switzerland. The complexity of the integration will require sustained diligent effort. While we execute these changes, we will not be distracted from our primary focus: supporting our clients with advice and solutions.

UBS business divisions and Group Functions

Management report

Global Wealth Management

Global Wealth Management¹

USD m, except where indicated	As of or for the quarter ended			% change from	
	31.3.23	31.12.22	31.3.22	4Q22	1Q22
Results					
Net interest income	1,491	1,499	1,141	(1)	31
Recurring net fee income ²	2,454	2,399	2,806	2	(13)
Transaction-based income ²	843	658	954	28	(12)
Other income	4	45	3	(92)	18
Total revenues	4,792	4,601	4,904	4	(2)
Credit loss expense / (release)	15	3	(7)	423	
Operating expenses	3,561	3,540	3,602	1	(1)
Business division operating profit / (loss) before tax	1,215	1,058	1,310	15	(7)
Performance measures and other information					
Pre-tax profit growth (year-on-year, %) ²	(7.2)	87.9	(7.0)		
Cost / income ratio (%) ²	74.3	76.9	73.4		
Average attributed equity (USD bn) ³	20.3	20.3	19.9	0	2
Return on attributed equity (%) ^{2,3}	23.9	20.9	26.3		
Financial advisor compensation ⁴	1,111	1,073	1,220	4	(9)
Net new fee-generating assets (USD bn) ²	19.7	23.3	19.4		
Fee-generating assets (USD bn) ²	1,335	1,271	1,414	5	(6)
Fee-generating asset margin (bps) ²	78.1	77.7	81.6		
Invested assets (USD bn) ²	2,962	2,815	3,145	5	(6)
Loans, gross (USD bn) ⁵	223.8	225.0	230.3	(1)	(3)
Customer deposits (USD bn) ⁵	330.3	348.2	372.3	(5)	(11)
Impaired loan portfolio as a percentage of total loan portfolio, gross (%) ^{2,6}	0.3	0.3	0.2		
Advisors (full-time equivalents)	9,117	9,215	9,300	(1)	(2)

¹ Comparatives may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period. ² Refer to "Alternative performance measures" in the appendix to this report for the definition and calculation method. Since the second quarter of 2022, assets related to our Global Financial Intermediaries business have been excluded from fee-generating assets, given that fee-generating investment management products, such as mandates, are not central to this business. Furthermore, client commitments into closed-ended private-market investment funds are included as fee-generating assets once recurring fees are charged, rather than when commitments are funded. These changes have been applied prospectively. ³ Refer to the "Capital management" section of this report for more information. ⁴ Relates to licensed professionals with the ability to provide investment advice to clients in the Americas. Consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements. Recruitment loans to financial advisors were USD 1,721m as of 31 March 2023. ⁵ Loans and Customer deposits in this table include customer brokerage receivables and payables, respectively, which are presented in a separate reporting line on the balance sheet. ⁶ Refer to the "Risk management and control" section of this report for more information about (credit-)impaired exposures. Excludes loans to financial advisors.

Results: 1Q23 vs 1Q22

Profit before tax decreased by USD 95m, or 7%, to USD 1,215m, mainly driven by lower total revenues, partly offset by lower operating expenses.

Total revenues

Total revenues decreased by USD 112m to USD 4,792m, mainly due to decreases across recurring net fee and transaction-based income, partly offset by an increase in net interest income.

Net interest income increased by USD 350m, or 31%, to USD 1,491m, mainly due to an increase in deposit revenues, reflecting the benefits from higher interest rates, partly offset by shifts to lower-margin deposit products. Clients also continued to reallocate deposits

into money market funds and US-government securities, leading to lower average deposit volumes. Loan revenues decreased, driven by lower average loan volumes and margins.

Recurring net fee income decreased by USD 352m, or 13%, to USD 2,454m, primarily driven by negative market performance and foreign currency effects.

Transaction-based income decreased by USD 111m, or 12%, to USD 843m, mainly driven by lower levels of client activity across all regions.

Credit loss expense / release

Net credit loss expenses were USD 15m, primarily related to stage 1 and 2 positions, compared with net releases of USD 7m in the first quarter of 2022.

Operating expenses

Operating expenses decreased by USD 41m to USD 3,561m, mainly driven by a decrease in personnel expenses, primarily as a result of lower financial advisor variable compensation, and a decrease in provisions for litigation, regulatory and similar matters. This was partly offset by higher technology expenses, tax and regulatory expenses, expenses for travel and entertainment, and outsourcing expenses.

Fee-generating assets: 1Q23 vs 4Q22

Fee-generating assets increased by USD 64bn, or 5%, to USD 1,335bn, driven by net positive market performance and foreign currency effects, as well as net new fee-generating asset inflows of USD 19.7bn, mainly driven by advisory mandates and resulting in an annualized net new fee-generating asset growth rate of 6.2%.

Loans: 1Q23 vs 4Q22

Loans decreased by USD 1.2bn to USD 223.8bn, mainly driven by negative net new loans of USD 2.0bn, partly offset by positive foreign currency effects.

Customer deposits: 1Q23 vs 4Q22

Customer deposits decreased by USD 17.9bn to USD 330.3bn, mainly driven by US dollar deposit shifts into money market funds and US-government securities, partly offset by net new inflows into fixed-term and savings deposit products.

Regional breakdown of performance measures

As of or for the quarter ended 31.3.23 USD bn, except where indicated	Americas ¹	Switzerland	EMEA ²	Asia Pacific	Global Wealth Management ³
Total revenues (USD m)	2,609	523	986	675	4,792
Operating profit / (loss) before tax (USD m)	364	251	354	251	1,215
Cost / income ratio (%) ⁴	85.4	52.3	64.0	62.8	74.3
Loans, gross	99.9 ⁵	45.7	43.4	34.1	223.8
Net new loans	(1.3)	0.1	(0.5)	(0.4)	(2.0)
Fee-generating assets ⁴	809	131	273	121	1,335
Net new fee-generating assets ⁴	3.8	7.7	2.8	5.3	19.7
Net new fee-generating asset growth rate (%) ⁴	2.0	25.7	4.4	18.8	6.2
Invested assets ⁴	1,659	276	567	456	2,962
Advisors (full-time equivalents)	6,147	679	1,366	854	9,117

¹ Including the following business units: United States and Canada; and Latin America. ² Including the following business units: Europe; and Middle East and Africa. ³ Including minor functions, which are not included in the four regions individually presented in this table, with negative USD 2m of total revenues, USD 5m of operating loss before tax, USD 0.7bn of loans, USD 0.0bn of net new loans, USD 0.8bn of fee-generating assets, USD 0.0bn of net new fee-generating asset outflows, USD 3bn of invested assets and 72 advisors in the first quarter of 2023. ⁴ Refer to "Alternative performance measures" in the appendix to this report for the definition and calculation method. ⁵ Loans include customer brokerage receivables, which are presented in a separate reporting line on the balance sheet.

Regional comments 1Q23 vs 1Q22, except where indicated

Americas

Profit before tax decreased by USD 75m to USD 364m. Total revenues decreased by USD 86m, or 3%, to USD 2,609m, driven by lower recurring net fee and transaction-based income, partly offset by higher net interest income. The cost / income ratio increased to 85.4% from 84.1%. Loans decreased 1% compared with the fourth quarter of 2022, to USD 99.9bn, reflecting USD 1.3bn of negative net new loans. Net new fee-generating assets were USD 3.8bn.

Switzerland

Profit before tax increased by USD 2m to USD 251m. Total revenues increased by USD 6m, or 1%, to USD 523m, mainly driven by higher net interest income, partly offset by lower recurring net fee income. The cost / income ratio increased to 52.3% from 51.3%. Loans increased 1% compared with the fourth quarter of 2022, to USD 45.7bn, driven by positive foreign currency effects, as well as USD 0.1bn of net new loans. Net new fee-generating assets were USD 7.7bn.

EMEA

Profit before tax increased by USD 7m to USD 354m, mainly driven by lower operating expenses. Total revenues decreased by USD 2m to USD 986m, as increases in net interest income were offset by lower recurring net fee and transaction-based income. The cost / income ratio decreased to 64.0% from 64.9%. Loans were unchanged at USD 43.4bn compared with the fourth quarter of 2022, mainly as USD 0.5bn of negative net new loans were offset by positive foreign currency effects. Net new fee-generating assets were USD 2.8bn.

Asia Pacific

Profit before tax decreased by USD 37m to USD 251m. Total revenues decreased by USD 34m, or 5%, to USD 675m, mainly driven by lower transaction-based and recurring net fee income, partly offset by higher net interest income. The cost / income ratio increased to 62.8% from 59.3%. Loans decreased 1% compared with the fourth quarter of 2022, to USD 34.1bn, reflecting USD 0.4bn of negative net new loans. Net new fee-generating assets were USD 5.3bn.

Personal & Corporate Banking

Personal & Corporate Banking – in Swiss francs¹

CHF m, except where indicated	As of or for the quarter ended			% change from	
	31.3.23	31.12.22	31.3.22	4Q22	1Q22
Results					
Net interest income	651	603	493	8	32
Recurring net fee income ²	210	193	210	8	0
Transaction-based income ²	309	269	300	15	3
Other income	10	13	(1)	(29)	
Total revenues	1,180	1,079	1,002	9	18
Credit loss expense / (release)	14	(3)	21		(32)
Operating expenses	613	578	586	6	5
Business division operating profit / (loss) before tax	553	504	395	10	40
Performance measures and other information					
Pre-tax profit growth (year-on-year, %) ²	40.0	50.6	10.4		
Cost / income ratio (%) ²	51.9	53.6	58.5		
Average attributed equity (CHF bn) ³	9.0	9.0	8.7	0	4
Return on attributed equity (%) ^{2,3}	24.6	22.4	18.2		
Net interest margin (bps) ²	181	169	141		
Fee and trading income for Corporate & Institutional Clients ²	231	187	221	24	4
Investment products for Personal Banking (CHF bn) ²	22.7	21.6	23.1	5	(2)
Net new investment products for Personal Banking (CHF bn) ²	0.86	0.13	0.97		
Active Digital Banking clients in Personal Banking (%) ^{2,4}	77.2	75.9	73.2		
Active Mobile Banking clients in Personal Banking (%) ²	63.1	61.0	52.1		
Active Digital Banking clients in Corporate & Institutional Clients (%) ²	81.3	80.6	80.2		
Loans, gross (CHF bn)	144.3	142.9	141.3	1	2
Customer deposits (CHF bn)	165.3	167.2	161.5	(1)	2
Impaired loan portfolio as a percentage of total loan portfolio, gross (%) ^{2,5}	0.8	0.8	0.8		

¹ Comparatives may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period. ² Refer to "Alternative performance measures" in the appendix to this report for the definition and calculation method. ³ Refer to the "Capital management" section of this report for more information. ⁴ In the first quarter of 2023, 87.9% of clients of Personal Banking were "activated users" of Digital Banking (i.e., clients who had logged into Digital Banking at least once in the course of their relationship with UBS). ⁵ Refer to the "Risk management and control" section of this report for more information about (credit-)impaired exposures.

Results: 1Q23 vs 1Q22

Profit before tax increased by CHF 158m, or 40%, to CHF 553m, as higher total revenues and lower net credit loss expenses were partly offset by higher operating expenses.

Total revenues

Total revenues increased by CHF 178m to CHF 1,180m, mainly reflecting higher net interest, transaction-based and other income.

Net interest income increased by CHF 158m to CHF 651m, mainly driven by higher deposit margins, as a result of rising interest rates, and higher loan revenues, partly offset by lower deposit fees. The first quarter of 2022 included a benefit from the Swiss National Bank deposit exemption.

Recurring net fee income was unchanged at CHF 210m.

Transaction-based income increased by CHF 9m to CHF 309m, mainly driven by higher corporate client and credit card fees, partly offset by lower net brokerage fees.

Other income was positive CHF 10m, compared with negative CHF 1m, as the first quarter of 2022 included a valuation loss of CHF 16m on our equity ownership of SIX Group.

Credit loss expense / release

Net credit loss expenses were CHF 14m, related to stage 1 and 2 positions that were substantially driven by expenses from macroeconomic scenario updates, compared with net expenses of CHF 21m in the first quarter of 2022.

Operating expenses

Operating expenses increased by CHF 27m, or 5%, to CHF 613m, mainly driven by higher technology expenses.

Personal & Corporate Banking – in US dollars¹

USD m, except where indicated	As of or for the quarter ended			% change from	
	31.3.23	31.12.22	31.3.22	4Q22	1Q22
Results					
Net interest income	705	633	535	11	32
Recurring net fee income ²	227	202	227	12	0
Transaction-based income ²	335	281	325	19	3
Other income	10	14	(1)	(27)	
Total revenues	1,278	1,130	1,086	13	18
Credit loss expense / (release)	16	(4)	23		(30)
Operating expenses	663	605	635	10	4
Business division operating profit / (loss) before tax	599	529	428	13	40
Performance measures and other information					
Pre-tax profit growth (year-on-year, %) ²	39.8	44.9	10.0		
Cost / income ratio (%) ²	51.9	53.5	58.5		
Average attributed equity (USD bn) ³	9.7	9.3	9.4	4	3
Return on attributed equity (%) ^{2,3}	24.7	22.8	18.2		
Net interest margin (bps) ²	181	169	140		
Fee and trading income for Corporate & Institutional Clients ²	250	195	240	28	4
Investment products for Personal Banking (USD bn) ²	24.8	23.4	25.0	6	(1)
Net new investment products for Personal Banking (USD bn) ²	0.94	0.14	1.05		
Active Digital Banking clients in Personal Banking (%) ^{2,4}	77.2	75.9	73.2		
Active Mobile Banking clients in Personal Banking (%) ²	63.1	61.0	52.1		
Active Digital Banking clients in Corporate & Institutional Clients (%) ²	81.3	80.6	80.2		
Loans, gross (USD bn)	157.6	154.6	152.9	2	3
Customer deposits (USD bn)	180.5	180.8	174.8	0	3
Impaired loan portfolio as a percentage of total loan portfolio, gross (%) ^{2,5}	0.8	0.8	0.8		

¹ Comparatives may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period. ² Refer to "Alternative performance measures" in the appendix to this report for the definition and calculation method. ³ Refer to the "Capital management" section of this report for more information. ⁴ In the first quarter of 2023, 87.9% of clients of Personal Banking were "activated users" of Digital Banking (i.e., clients who had logged into Digital Banking at least once in the course of their relationship with UBS). ⁵ Refer to the "Risk management and control" section of this report for more information about (credit-)impaired exposures.

Asset Management

Asset Management¹

USD m, except where indicated	As of or for the quarter ended			% change from	
	31.3.23	31.12.22	31.3.22	4Q22	1Q22
Results					
Net management fees ²	479	471	561	2	(15)
Performance fees	23	24	17	(3)	40
Total revenues	502	495	578	1	(13)
Credit loss expense / (release)	0	0	0		
Operating expenses	408	372	404	10	1
Business division operating profit / (loss) before tax	94	124	174	(24)	(46)

Performance measures and other information

Pre-tax profit growth (year-on-year, %) ³	(45.8)	(62.9)	(23.1)		
Cost / income ratio (%) ³	81.2	75.1	69.8		
Average attributed equity (USD bn) ⁴	1.7	1.7	1.8	3	(2)
Return on attributed equity (%) ^{3,4}	21.8	29.3	39.5		
Gross margin on invested assets (bps) ³	18	19	20		

Information by business line / asset class

Net new money (USD bn) ³					
Equities	(4.1)	0.3	(2.4)		
Fixed Income	19.2	12.9	4.1		
of which: money market	18.0	16.3	(6.5)		
Multi-asset & Solutions	1.3	(6.7)	4.0		
Hedge Fund Businesses	(0.9)	3.6	1.6		
Real Estate & Private Markets	(1.2)	0.5	0.4		
Total net new money⁵	14.4	10.8	7.7		
of which: net new money excluding money market	(3.6)	(5.6)	14.2		

Invested assets (USD bn)³

Equities	481	456	537	5	(10)
Fixed Income	320	296	277	8	15
of which: money market	138	119	86	16	61
Multi-asset & Solutions	161	155	185	4	(13)
Hedge Fund Businesses	55	55	56	(1)	(2)
Real Estate & Private Markets	100	102	99	(2)	1
Total invested assets	1,117	1,064	1,154	5	(3)
of which: passive strategies	468	443	516	6	(9)

Information by region

Invested assets (USD bn) ³					
Americas	321	298	278	8	16
Asia Pacific	153	150	175	2	(13)
Europe, Middle East and Africa (excluding Switzerland)	274	263	315	4	(13)
Switzerland	369	354	386	4	(4)
Total invested assets	1,117	1,064	1,154	5	(3)

Information by channel

Invested assets (USD bn) ³					
Third-party institutional	626	606	672	3	(7)
Third-party wholesale	123	116	137	6	(10)
UBS's wealth management businesses	368	342	345	7	6
Total invested assets	1,117	1,064	1,154	5	(3)

¹ Comparatives may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period. ² Net management fees include transaction fees, fund administration revenues (including net interest and trading income from lending activities and foreign exchange hedging as part of the fund services offering), distribution fees, incremental fund-related expenses, gains or losses from seed money and co-investments, funding costs, the negative pass-through impact of third-party performance fees, and other items that are not Asset Management's performance fees. ³ Refer to "Alternative performance measures" in the appendix to this report for the definition and calculation method. ⁴ Refer to the "Capital management" section of this report for more information. ⁵ A net new money inflow of USD 4.1bn was recognized in the fourth quarter of 2022 for the provision of hedge fund services to Global Wealth Management Americas.



Results: 1Q23 vs 1Q22

Profit before tax decreased by USD 80m, or 46%, to USD 94m, reflecting lower total revenues and higher operating expenses.

Total revenues

Total revenues decreased by USD 76m, or 13%, to USD 502m, reflecting lower net management fees, partly offset by higher performance fees.

Net management fees decreased by USD 82m, or 15%, to USD 479m, primarily reflecting negative market performance and foreign currency effects, negative pass-through fees with the corresponding offset in performance fees, and continued pressure on margins.

Performance fees increased by USD 6m to USD 23m, reflecting the effect of the aforementioned pass-through fees, partly offset by minor decreases across all asset classes.

Operating expenses

Operating expenses increased by USD 4m, or 1%, to USD 408m, reflecting increases in general and administrative expenses, including technology costs, partly offset by lower personnel expenses and foreign currency effects.

Invested assets: 1Q23 vs 4Q22

Invested assets increased by USD 53bn to USD 1,117bn, reflecting positive market performance of USD 35bn, net new money inflows of USD 14bn and foreign currency effects of USD 4bn. Excluding money market flows, net new money outflows were USD 4bn.

Investment Bank

Investment Bank¹

USD m, except where indicated	As of or for the quarter ended			% change from	
	31.3.23	31.12.22	31.3.22	4Q22	1Q22
Results					
Advisory	171	172	216	(1)	(21)
Capital Markets	212	159	334	33	(37)
Global Banking	383	331	550	16	(30)
Execution Services	422	371	496	14	(15)
Derivatives & Solutions	1,007	541	1,418	86	(29)
Financing	537	438	444	23	21
Global Markets	1,967	1,351	2,358	46	(17)
of which: Equities	1,308	883	1,705	48	(23)
of which: Foreign Exchange, Rates and Credit	658	468	653	41	1
Total revenues	2,349	1,682	2,908	40	(19)
Credit loss expense / (release)	7	8	4	(13)	98
Operating expenses	1,866	1,563	1,976	19	(6)
Business division operating profit / (loss) before tax	477	112	929	327	(49)
Performance measures and other information					
Pre-tax profit growth (year-on-year, %) ²	(48.7)	(84.4)	125.6		
Cost / income ratio (%) ²	79.4	92.9	67.9		
Average attributed equity (USD bn) ³	13.0	12.7	13.2	3	(1)
Return on attributed equity (%) ^{2,3}	14.6	3.5	28.2		
Average VaR (1-day, 95% confidence, 5 years of historical data)	12	9	10	27	11

¹ Comparative figures in this table may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period. ² Refer to "Alternative performance measures" in the appendix to this report for the definition and calculation method. ³ Refer to the "Capital management" section of this report for more information.

Results: 1Q23 vs 1Q22

Profit before tax decreased by USD 452m, or 49%, to USD 477m, mainly driven by lower total revenues, partly offset by lower operating expenses.

Total revenues

Total revenues decreased by USD 559m, or 19%, to USD 2,349m, reflecting lower revenues in Global Markets and Global Banking.

Global Banking

Global Banking revenues decreased by USD 167m, or 30%, to USD 383m, mainly driven by lower Capital Markets revenues. Our fee-pool-comparable revenues¹ decreased 35%, compared with a 37% decrease in the overall global fee pool.²

Advisory revenues decreased by USD 45m, or 21%, to USD 171m, primarily due to lower merger and acquisition transaction revenues, which decreased by USD 39m, or 20%, compared with a 43% decrease in the relevant global fee pool.²

Capital Markets revenues decreased by USD 122m, or 37%, to USD 212m, mainly due to lower Leveraged Capital Markets fee revenues, which decreased by USD 55m, or 61%, compared with a 58% decrease in the relevant global fee pool.² Equity Capital Markets revenues decreased by USD 43m, or 44%, compared with a 15% decrease in the relevant global fee pool.²

Global Markets

Global Markets revenues decreased by USD 391m, or 17%, to USD 1,967m, with lower Derivatives & Solutions and Execution Services revenues partly offset by an increase in Financing revenues.

Execution Services revenues decreased by USD 74m, or 15%, to USD 422m, mainly driven by lower Cash Equities revenues, partly offset by higher revenues from foreign exchange products that are traded over electronic platforms.

Derivatives & Solutions revenues decreased by USD 411m, or 29%, to USD 1,007m, driven by a decrease in Equity Derivatives and Foreign Exchange revenues due to lower levels of client activity and volatility, partly offset by an increase in Credit revenues.

Financing revenues increased by USD 93m, or 21%, to USD 537m, mainly driven by higher revenues in Prime Brokerage, a recovery, and higher revenues in Clearing and Equities Financing.

Equities

Global Markets Equities revenues decreased by USD 397m, or 23%, to USD 1,308m, mainly driven by Equity Derivatives and Cash Equities, partly offset by Financing.

Foreign Exchange, Rates and Credit

Global Markets Foreign Exchange, Rates and Credit revenues increased by USD 5m, or 1%, to USD 658m, mainly driven by Credit, partly offset by Foreign Exchange and Rates.

Credit loss expense / release

Net credit loss expenses were USD 7m, primarily related to credit-impaired (stage 3) positions, compared with net expenses of USD 4m in the first quarter of 2022.

Operating expenses

Operating expenses decreased by USD 110m, or 6%, to USD 1,866m, mainly driven by lower variable compensation, partly offset by higher technology expenses and provisions for litigation, regulatory and similar matters.

¹ UBS fee-pool-comparable revenues consist of revenues from: merger-and-acquisition-related transactions; Equity Capital Markets; Leveraged Capital Markets, excluding the impact of mark-to-market movements on loan portfolios; and Debt Capital Markets, excluding revenues related to debt underwriting of UBS instruments.

² Source: Dealogic, as of 31 March 2023.

Group Functions

Group Functions¹

USD m	As of or for the quarter ended			% change from	
	31.3.23	31.12.22	31.3.22	4Q22	1Q22
Results					
Total revenues	(177)	120	(95)		87
Credit loss expense / (release)	0	0	0		
Operating expenses	712	6	18		
Operating profit / (loss) before tax	(890)	114	(112)		693
<i>of which: Group Treasury</i>	(62)	127	(162)		(62)
<i>of which: Non-core and Legacy Portfolio</i>	(676)	33	45		
<i>of which: Group Services</i>	(153)	(45)	5	236	

¹ Comparatives may differ as a result of adjustments following organizational changes, restatements due to the retrospective adoption of new accounting standards or changes in accounting policies, and events after the reporting period.

Results: 1Q23 vs 1Q22

Group Functions recorded a loss before tax of USD 890m, compared with a loss of USD 112m.

Group Treasury

The Group Treasury result was negative USD 62m, compared with negative USD 162m.

The net effects of accounting asymmetries, including hedge accounting ineffectiveness, were negative USD 68m, compared with negative USD 138m. Accounting asymmetries are generally expected to mean revert to zero over time, although the length of time needed for full reversion can vary significantly, depending on market conditions.

Income related to centralized Group Treasury risk management was positive USD 12m, compared with negative USD 17m.

Non-core and Legacy Portfolio

The Non-core and Legacy Portfolio result was negative USD 676m, compared with positive USD 45m. This was mainly due to an increase in provisions of USD 665m related to the US residential mortgage-backed securities litigation matter, as well as valuation gains of USD 51m on our portfolio of auction rate securities in the first quarter of 2022.

Group Services

The Group Services result was negative USD 153m, compared with positive USD 5m, mainly due to higher funding costs related to deferred tax assets of USD 94m and USD 70m of costs associated with the anticipated acquisition of Credit Suisse, mainly related to advisory fees.

Risk, capital, liquidity and funding, and balance sheet

Management report

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Risk management and control

This section provides information about key developments during the reporting period and should be read in conjunction with the “Risk management and control” section of our Annual Report 2022.

Credit risk

Overall banking products exposure

Overall banking products exposure decreased by USD 26bn to USD 661bn as of 31 March 2023, driven by a USD 25bn decrease in balances at central banks from lower customer deposits, higher trading portfolio assets and lower brokerage payables, partly offset by inflows from roll-offs of securities financing transactions.

Total net credit loss expenses were USD 38m, reflecting USD 26m net credit loss expenses related to stage 1 and 2 positions and USD 12m net credit loss expenses related to stage 3 positions.

- › Refer to the “Group performance” section and “Note 7 Expected credit loss measurement” in the “Consolidated financial statements” section of this report for more information about credit loss expense / release

Loan underwriting

In the Investment Bank, mandated loan underwriting commitments on a notional basis increased by USD 0.3bn to USD 3.0bn as of 31 March 2023. USD 1.2bn of commitments had not yet been distributed as originally planned as of 31 March 2023.

Loan underwriting exposures are classified as held for trading, with fair values reflecting the market conditions at the end of the quarter. Credit hedges are in place to help protect against fair value movements in the portfolio.

Banking and traded products exposure in our business divisions and Group Functions

	31.3.23					
USD m	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
Banking products¹						
Gross exposure	320,390	236,562	1,456	70,695	32,064	661,167
of which: loans and advances to customers (on-balance sheet)	218,213	157,616	(1)	13,834	1,272	390,935
of which: guarantees and loan commitments (off-balance sheet)	11,998	27,995	0	13,475	8,976	62,445
Traded products^{2,3}						
Gross exposure	8,816	300	0	32,785		41,902
of which: over-the-counter derivatives	6,902	282	0	8,450		15,634
of which: securities financing transactions	0	0	0	17,193		17,193
of which: exchange-traded derivatives	1,914	19	0	7,142		9,075
Other credit lines, gross⁴	12,296	24,006	0	4,658	111	41,071
Total credit-impaired exposure, gross (stage 3)	763	1,409	0	319	6	2,497
Total allowances and provisions for expected credit losses (stages 1 to 3)	226	714	0	173	8	1,121
of which: stage 1	88	146	0	45	5	284
of which: stage 2	52	166	0	52	0	271
of which: stage 3	86	402	0	76	3	567

	31.12.22					
USD m	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
Banking products¹						
Gross exposure	334,621	236,508	1,454	76,585	37,986	687,152
of which: loans and advances to customers (on-balance sheet)	219,385	154,643	(1)	12,754	1,221	388,003
of which: guarantees and loan commitments (off-balance sheet)	13,147	28,610	0	12,920	7,486	62,163
Traded products^{2,3}						
Gross exposure	8,328	320	0	34,370		43,018
of which: over-the-counter derivatives	6,416	304	0	11,218		17,938
of which: securities financing transactions	0	0	0	17,055		17,055
of which: exchange-traded derivatives	1,912	15	0	6,097		8,024
Other credit lines, gross⁴	12,084	23,092	0	6,105	109	41,390
Total credit-impaired exposure, gross (stage 3)	757	1,380	0	312	6	2,455
Total allowances and provisions for expected credit losses (stages 1 to 3)	215	701	0	168	7	1,091
of which: stage 1	68	138	0	49	4	259
of which: stage 2	57	156	0	54	0	267
of which: stage 3	90	406	0	64	3	564

1 IFRS 9 gross exposure including other financial assets at amortized cost, but excluding cash, receivables from securities financing transactions, cash collateral receivables on derivative instruments, financial assets at fair value through other comprehensive income, irrevocable committed prolongation of existing loans and unconditionally revocable committed credit lines, and forward starting reverse repurchase and securities borrowing agreements. 2 Internal management view of credit risk, which differs in certain respects from IFRS. 3 As counterparty risk for traded products is managed at counterparty level, no further split between exposures in the Investment Bank and Group Functions is provided. 4 Unconditionally revocable committed credit lines.

Collateralization of Loans and advances to customers¹

	UBS		of which: Global Wealth Management		of which: Personal & Corporate Banking		of which: Investment Bank	
USD m, except where indicated	31.3.23	31.12.22	31.3.23	31.12.22	31.3.23	31.12.22	31.3.23	31.12.22
Secured by collateral	369,201	367,159	215,803	216,993	141,509	138,851	11,660	10,724
Residential real estate	176,006	172,700	63,237	62,200	112,769	110,500	0	0
Commercial / industrial real estate	25,971	25,271	4,974	4,955	20,416	19,795	580	520
Cash	30,269	33,550	27,278	30,514	2,989	3,036	1	0
Securities	112,353	115,941	103,480	107,253	2,177	2,228	6,467	5,869
Other collateral	24,602	19,698	16,834	12,071	3,157	3,293	4,612	4,334
Subject to guarantees	2,889	2,957	112	144	2,697	2,758	80	55
Uncollateralized and not subject to guarantees	18,844	17,887	2,297	2,247	13,410	13,034	2,095	1,976
Total loans and advances to customers, gross	390,935	388,003	218,213	219,385	157,616	154,643	13,834	12,754
Allowances	(804)	(783)	(154)	(138)	(557)	(559)	(90)	(83)
Total loans and advances to customers, net of allowances	390,130	387,220	218,059	219,247	157,059	154,084	13,744	12,672
Collateralized loans and advances to customers in % of total loans and advances of customers, gross (%)	94.4	94.6	98.9	98.9	89.8	89.8	84.3	84.1

1 Collateral arrangements generally incorporate a range of collateral, including cash, securities, real estate and other collateral. UBS applies a risk-based approach that generally prioritizes collateral according to its liquidity profile.

Market risk

We continued to maintain generally low levels of management value-at-risk (VaR). Average management VaR (1-day, 95% confidence level) increased to USD 13m from USD 10m at the end of the fourth quarter of 2022.

There were no new Group VaR negative backtesting exceptions in the first quarter of 2023, and the total number of negative backtesting exceptions within the most recent 250-business-day window remained at one. The Swiss Financial Market Supervisory Authority (FINMA) VaR multiplier derived from backtesting exceptions for market risk risk-weighted assets was unchanged compared with the prior quarter, at 3.0.

Management value-at-risk (1-day, 95% confidence, 5 years of historical data) of our business divisions and Group Functions by general market risk type¹

USD m	Average by risk type								
	Min.	Max.	Period end	Average	Equity	Interest rates	Credit spreads	Foreign exchange	Commodities
Global Wealth Management	1	2	2	2	0	1	2	0	0
Personal & Corporate Banking	0	0	0	0	0	0	0	0	0
Asset Management	0	0	0	0	0	0	0	0	0
Investment Bank	6	23	15	12	8	10	4	2	3
Group Functions	3	5	4	4	1	3	3	1	0
Diversification effect ^{2,3}			(4)	(4)	(1)	(3)	(3)	(1)	0
Total as of 31.3.23	7	24	16	13	7	12	6	2	3
Total as of 31.12.22	6	15	9	10	5	10	5	2	3

¹ Statistics at individual levels may not be summed to deduce the corresponding aggregate figures. The minima and maxima for each level may occur on different days, and, likewise, the value-at-risk (VaR) for each business line or risk type, being driven by the extreme loss tail of the corresponding distribution of simulated profits and losses for that business line or risk type, may well be driven by different days in the historical time series, rendering invalid the simple summation of figures to arrive at the aggregate total. ² The difference between the sum of the standalone VaR for the business divisions and Group Functions and the VaR for the Group as a whole. ³ As the minima and maxima for different business divisions and Group Functions occur on different days, it is not meaningful to calculate a portfolio diversification effect.

Country risk

We remain watchful of a range of geopolitical developments and political changes in a number of countries, as well as international tensions arising from the Russia–Ukraine war, and US–China trade relations. Our direct exposure to Russia, Belarus and Ukraine is limited, and we continue to monitor potential second-order impacts, such as European energy security. We do have significant country risk exposure to major European economies, including France, Germany and the UK.

In the context of high inflation, central banks in most major economies have responded with interest rate hikes and tapering or reversing quantitative easing, which increases the chances of recessions in those economies. Recent banking sector volatility has increased uncertainty about the trajectory of monetary policy. Furthermore, there are related concerns about energy security, global supply chain stresses and tight labor markets that are creating negative pressure on growth. Following the relaxation of COVID-19 restrictions, China experienced a spike in cases, which dampened growth, but now a rebound is underway that we expect to continue over the course of 2023.

We continue to monitor potential trade policy disputes, as well as economic and political developments in addition to those mentioned above. Several emerging markets are facing economic, political and market pressures, particularly in light of interest rate hikes, a stronger US dollar, and higher energy prices. Our exposure to emerging market countries is 5% of our total country exposure and is diversified.

› Refer to the “Risk management and control” section of our Annual Report 2022 for more information

Non-financial risk

Given rising geopolitical tensions, coupled with ongoing environmental and health threats, it is essential that UBS remains operationally resilient and continues to prepare for evolving operational-resilience-related regulatory requirements in multiple jurisdictions with deadlines through 2026. We have developed a global operational resilience framework and are implementing it across all business divisions and jurisdictions. The framework will mature over time and is designed to drive enhancements in operational resilience.

We are continuing our efforts regarding innovation and digitalization to create value for our clients. As part of the resulting transformation, we focus on timely changes to frameworks, including consideration of new or revised controls, working practices and oversight, with the aim of mitigating any new risks introduced.

The increasing interest in data-driven advisory processes, and use of artificial intelligence (AI) and machine learning, is opening up new questions related to the fairness of AI algorithms, data life cycle management, data ethics, data privacy and security, and records management. We are actively enhancing and implementing the required frameworks, which are designed to ensure proper controls are in place to meet regulatory expectations.

The inherent risk of cyberattacks continues to be elevated, as the geopolitical situation increases the likelihood of external state-driven cyber activity, and attacks are becoming increasingly sophisticated, which may result in business disruption or the corruption or loss of data at our locations or those of third parties. During the first quarter of 2023, a third-party vendor, ION XTP, suffered a ransomware attack, which resulted in some disruption to our exchange-traded derivatives clearing activities, although we restored our services within 36 hours, using an available alternative solution. It is therefore key that our cyber-defense capabilities continue to be strengthened and evolve in line with developments in the threat landscape and supply chain risks are managed, aiming to ensure third parties are resilient. We continuously enhance our cyber capabilities to stay abreast of evolving threats, including those related to third-party suppliers, and leverage and implement lessons learned from industry events.

The post-pandemic “new normal” introduced changes to the work environment (including permanent hybrid working and agile ways of working) and new challenges for supervision and monitoring. Hybrid working can lead to increased conduct risk, inherent risk of fraudulent activities, potential increases in the number of suspicious transactions, and increased information security risks. We have implemented additional monitoring and supervision to mitigate these risks.

Competition to find new business opportunities across the financial services industry, both for firms and for customers, is increasing. Thus, suitability risk, product selection, cross-divisional service offerings, quality of advice and price transparency also remain areas of heightened focus for UBS and for the industry as a whole.

Sustainable investing, market volatility and major legislative change programs, such as the Swiss Financial Services Act (FIDLEG) in Switzerland, Regulation Best Interest (Reg BI) in the US and the Markets in Financial Instruments Directive II (MiFID II) in the EU, all significantly affect the industry and have required adjustments to control processes on a geographically aligned basis.

Achieving fair outcomes for our clients, upholding market integrity and cultivating the highest standards of employee conduct are of critical importance to us. We place additional focus on risk culture through our Three Keys program, as well as our conduct risk framework across our activities, which is designed to align our standards and conduct with these objectives and to retain momentum on fostering a strong culture.

Cross-border risk remains an area of regulatory attention for global financial institutions, with a strong focus on fiscal transparency, as well as market access, particularly third-country market access into the European Economic Area. Remote communication and implementation of digital solutions also require that these evolving client channels remain compliant. There is also an ongoing high level of attention regarding the risk that tax authorities may, on the basis of new interpretations of existing law, seek to impose taxation based on the existence of a permanent establishment. We maintain a series of controls designed to address these risks.

Financial crime, including money laundering, terrorist financing, sanctions violations, fraud, bribery and corruption, continues to present a major risk, as technological innovation and geopolitical developments increase the complexity of doing business and heightened regulatory attention continues. An effective financial crime prevention program therefore remains essential for UBS. Money laundering and financial fraud techniques are becoming increasingly sophisticated, and geopolitical volatility makes the sanctions landscape more complex, as new or novel sanctions may be imposed that require complex implementation in a short time frame, such as the extensive and continuously evolving sanctions arising from the Russia–Ukraine war.

In the US, the Office of the Comptroller of the Currency (the OCC) issued a Cease and Desist Order against us in May 2018 relating to our US branch anti-money-laundering (AML) and know-your-client (KYC) programs. In response, we initiated an extensive program for the purpose of ensuring sustainable remediation of US-relevant Bank Secrecy Act / AML issues across all our US legal entities. We have introduced significant improvements to the framework since 2019 and are continuing to implement these enhancements, as well as continuously evolving them to respond to any new and emerging risks.

We continue to focus on strategic enhancements to our global AML / KYC and sanctions programs, including the exploration of new technologies and sophisticated monitoring and analytical capabilities, as well as the application of risk appetite statements for markets.

In September 2022, the Securities and Exchange Commission (the SEC) and the Commodity Futures Trading Commission (the CFTC) issued settlement orders with UBS AG relating to communications recordkeeping requirements in our US broker-dealers and our registered swap dealer. In response, we have initiated a program to remediate identified shortcomings.

New risks continue to emerge. For example, client demand for distributed ledger technology, blockchain-based assets and virtual currencies creates new risks, to which we currently have limited exposure and for which relevant control frameworks are being implemented.

The anticipated acquisition of Credit Suisse is expected to require extensive restructuring and presents significant integration risks, including the risk that UBS will not obtain the rights to continue to conduct business lines that Credit Suisse operates in certain jurisdictions. UBS and Credit Suisse will incur substantial transaction fees and costs in connection with the transaction and may not realize all of the expected cost reductions and other benefits of the transaction. In addition, upon completion of the acquisition, UBS will assume all assets and liabilities of Credit Suisse, including all ongoing and future litigation claims against Credit Suisse, thereby materially increasing UBS's exposure to litigation and investigation risks. Furthermore, UBS and Credit Suisse may become the target of lawsuits in connection with the transaction and / or the regulatory and other actions taken in connection with the transaction, which could result in substantial costs.

Capital management

The disclosures in this section are provided for UBS Group AG on a consolidated basis and focus on key developments during the reporting period and information in accordance with the Basel III framework, as applicable to Swiss systemically relevant banks (SRBs). They should be read in conjunction with "Capital management" in the "Capital, liquidity and funding, and balance sheet" section of our Annual Report 2022, which provides more information about our capital management objectives, planning and activities, as well as the Swiss SRB total loss-absorbing capacity framework.

UBS Group AG is a holding company and conducts substantially all of its operations through UBS AG and subsidiaries thereof. UBS Group AG and UBS AG have contributed a significant portion of their respective capital to, and provide substantial liquidity to, such subsidiaries. Many of these subsidiaries are subject to regulations requiring compliance with minimum capital, liquidity and similar requirements.

- › **Refer to our 31 March 2023 Pillar 3 Report, available under "Pillar 3 disclosures" at ubs.com/investors, for more information relating to additional regulatory disclosures for UBS Group AG on a consolidated basis, as well as our significant regulated subsidiaries and sub-groups (UBS AG standalone, UBS Switzerland AG standalone, UBS Europe SE consolidated and UBS Americas Holding LLC consolidated)**
- › **Refer to our UBS AG first quarter 2023 report, which will be available as of 27 April 2023 under "Quarterly reporting" at ubs.com/investors, for more information about capital and other regulatory information for UBS AG consolidated in accordance with the Basel III framework, as applicable to Swiss SRBs**

Swiss SRB going and gone concern requirements and information

As of 31.3.23	RWA		LRD	
USD m, except where indicated	in %		in %	
Required going concern capital				
Total going concern capital	14,671	47,177	5,001	50,722
Common equity tier 1 capital	10,37	33,345	3,502	35,506
of which: minimum capital	4,50	14,475	1,50	15,217
of which: buffer capital	5,50	17,691	2,00	20,289
of which: countercyclical buffer	0,37	1,179		
Maximum additional tier 1 capital	4,30	13,831	1,50	15,217
of which: additional tier 1 capital	3,50	11,258	1,50	15,217
of which: additional tier 1 buffer capital	0,80	2,573		
Eligible going concern capital				
Total going concern capital	17,94	57,694	5,69	57,694
Common equity tier 1 capital	13,86	44,590	4,40	44,590
Total loss-absorbing additional tier 1 capital³	4,07	13,104	1,29	13,104
of which: high-trigger loss-absorbing additional tier 1 capital	3,70	11,905	1,17	11,905
of which: low-trigger loss-absorbing additional tier 1 capital	0,37	1,198	0,12	1,198
Required gone concern capital				
Total gone concern loss-absorbing capacity^{4, 5, 6}	10,35	33,279	3,75	38,042
of which: base requirement including add-ons for market share and LRD	10,73 ⁷	34,498	3,75 ⁷	38,042
of which: reduction for usage of low-trigger tier 2 capital instruments	(0,38)	(1,219)	0,00	0
of which: additional requirements for impediments in resolvability ⁸				
Eligible gone concern capital				
Total gone concern loss-absorbing capacity	16,36	52,624	5,19	52,624
Total tier 2 capital	0,92	2,975	0,29	2,975
of which: low-trigger loss-absorbing tier 2 capital	0,76	2,438	0,24	2,438
of which: non-Basel III-compliant tier 2 capital	0,17	538	0,05	538
TLAC-eligible senior unsecured debt	15,44	49,649	4,89	49,649
Total loss-absorbing capacity				
Required total loss-absorbing capacity	25,01	80,456	8,75	88,764
Eligible total loss-absorbing capacity	34,30	110,318	10,87	110,318
Risk-weighted assets / leverage ratio denominator				
Risk-weighted assets		321,660		
Leverage ratio denominator				1,014,446

1 Includes applicable add-ons of 1.44% for risk-weighted assets (RWA) and 0.50% for leverage ratio denominator (LRD). 2 Our minimum CET1 leverage ratio requirement of 3.5% consists of a 1.5% base requirement, a 1.5% base buffer capital requirement, a 0.25% LRD add-on requirement and a 0.25% market share add-on requirement based on our Swiss credit business. 3 Includes outstanding low-trigger loss-absorbing additional tier 1 capital instruments, which are available under the Swiss systemically relevant bank framework to meet the going concern requirements until their first call date. As of their first call date, these instruments are eligible to meet the gone concern requirements. 4 A maximum of 25% of the gone concern requirements can be met with instruments that have a remaining maturity of between one and two years. Once at least 75% of the minimum gone concern requirement has been met with instruments that have a remaining maturity of greater than two years, all instruments that have a remaining maturity of between one and two years remain eligible to be included in the total gone concern capital. 5 The gone concern requirement after the application of the reduction for the use of higher-quality capital instruments is floored at 10% and 3.75% for the RWA- and LRD-based requirements, respectively. This means that the combined reduction may not exceed 4.3 percentage points for the RWA-based requirement of 14.3% and 1.25 percentage points for the LRD-based requirement of 5.0%. 6 From 1 January 2023, the resolvability discount on the gone concern capital requirements for systemically important banks (SIBs) has been replaced with reduced base gone concern capital requirements equivalent to 75% of the total going concern requirements (excluding countercyclical buffer requirements). 7 Includes applicable add-ons of 1.08% for RWA and 0.38% for LRD. 8 As of July 2024, the Swiss Financial Market Supervisory Authority (FINMA) will have the authority to impose a surcharge of up to 25% of the total going concern capital requirement should obstacles to a SIB's resolvability be identified in future resolvability assessments.

We are subject to the going and gone concern requirements of the Swiss Capital Adequacy Ordinance that include the too-big-to-fail provisions applicable to Swiss SRBs. The table above provides the risk-weighted asset (RWA)- and leverage ratio denominator (LRD)-based requirements and information as of 31 March 2023.

In November 2022, the Swiss Federal Council adopted amendments to the Banking Act and the Banking Ordinance, which entered into force as of 1 January 2023. The amendments replaced the resolvability discount on the gone concern capital requirements for systemically important banks (SIBs), including UBS, with reduced base gone concern capital requirements equivalent to 75% of the total going concern requirements (excluding countercyclical buffer requirements). In addition, as of July 2024, the Swiss Financial Market Supervisory Authority (FINMA) will have the authority to impose a surcharge of up to 25% of the total going concern requirements based on obstacles to a SIB's resolvability identified in future resolvability assessments. Our total gone concern requirements remained substantially unchanged in the first quarter of 2023 as a result of these changes.

The aforementioned requirements are also applicable to UBS AG consolidated. UBS Switzerland AG and UBS AG are subject to going and gone concern requirements on a standalone basis.

Total loss-absorbing capacity

The table below provides Swiss SRB going and gone concern information based on the Swiss SRB framework and requirements that are discussed under “Capital management” in the “Capital, liquidity and funding, and balance sheet” section of our Annual Report 2022. Changes to the Swiss SRB framework and requirements after the publication of our Annual Report 2022 are described above.

Swiss SRB going and gone concern information		
<i>USD m, except where indicated</i>	31.3.23	31.12.22
Eligible going concern capital		
Total going concern capital	57,694	58,321
Total tier 1 capital	57,694	58,321
Common equity tier 1 capital	44,590	45,457
Total loss-absorbing additional tier 1 capital	13,104	12,864
<i>of which: high-trigger loss-absorbing additional tier 1 capital</i>	<i>11,905</i>	<i>11,675</i>
<i>of which: low-trigger loss-absorbing additional tier 1 capital</i>	<i>1,198</i>	<i>1,189</i>
Eligible gone concern capital		
Total gone concern loss-absorbing capacity	52,624	46,991
Total tier 2 capital	2,975	2,958
<i>of which: low-trigger loss-absorbing tier 2 capital</i>	<i>2,438</i>	<i>2,422</i>
<i>of which: non-Basel III-compliant tier 2 capital</i>	<i>538</i>	<i>536</i>
TLAC-eligible senior unsecured debt	49,649	44,033
Total loss-absorbing capacity	110,318	105,312
Risk-weighted assets / leverage ratio denominator		
Risk-weighted assets	321,660	319,585
Leverage ratio denominator	1,014,446	1,028,461
Capital and loss-absorbing capacity ratios (%)		
Going concern capital ratio	17.9	18.2
<i>of which: common equity tier 1 capital ratio</i>	<i>13.9</i>	<i>14.2</i>
Gone concern loss-absorbing capacity ratio	16.4	14.7
Total loss-absorbing capacity ratio	34.3	33.0
Leverage ratios (%)		
Going concern leverage ratio	5.7	5.7
<i>of which: common equity tier 1 leverage ratio</i>	<i>4.40</i>	<i>4.42</i>
Gone concern leverage ratio	5.2	4.6
Total loss-absorbing capacity leverage ratio	10.9	10.2

Total loss-absorbing capacity and movement

Our total loss-absorbing capacity (TLAC) increased by USD 5.0bn to USD 110.3bn in the first quarter of 2023.

Going concern capital and movement

Our going concern capital decreased by USD 0.6bn to USD 57.7bn. Our common equity tier 1 (CET1) capital decreased by USD 0.9bn to USD 44.6bn, mainly as operating profit before tax of USD 1.5bn, with associated current tax expenses of USD 0.5bn, was more than offset by share repurchases of USD 1.3bn and dividend accruals of USD 0.4bn.

Our additional tier 1 (AT1) capital increased by USD 0.2bn to USD 13.1bn, mainly reflecting interest rate risk hedge, foreign currency translation and other effects.

Gone concern loss-absorbing capacity and movement

Our total gone concern loss-absorbing capacity increased by USD 5.6bn to USD 52.6bn, mainly due to 13 new issuances of TLAC-eligible senior unsecured debt, denominated in euro, US dollars, Australian dollars and yen, amounting to an equivalent of USD 8.6bn. This was partly offset by a USD 3.0bn decrease in gone concern capital following the announcement on 22 March 2023 of a tender offer to repurchase two TLAC-eligible senior unsecured debt instruments at their respective re-offer prices (ISIN CH1255915006, with an initial nominal amount of EUR 1.5bn, and ISIN CH1255915014, with an initial nominal amount of EUR 1.25bn, both issued on 17 March 2023). Due to the tender offer, which was made shortly after the instruments' issue date in light of the anticipated acquisition of Credit Suisse announced on 19 March 2023, the aforementioned instruments were not eligible as gone concern capital as of 31 March 2023. The nominal amounts of the two instruments bought back under the tender offer until 4 April 2023, which was the tender offer's final expiration deadline, totaled an equivalent of USD 0.8bn. The nominal amounts of instruments not bought back, an equivalent of USD 2.2bn, were eligible again as gone concern capital following the expiration of the tender offer on 4 April 2023.

› Refer to “Bondholder information” at ubs.com/investors for more information about the eligibility of capital and senior unsecured debt

Loss-absorbing capacity and leverage ratios

Our CET1 capital ratio decreased to 13.9% from 14.2%, reflecting the aforementioned decrease in CET1 capital and a USD 2.1bn increase in RWA.

Our CET1 leverage ratio decreased to 4.40% from 4.42%, due to the aforementioned decrease in CET1 capital, largely offset by a USD 14.0bn decrease in the LRD.

Our gone concern loss-absorbing capacity ratio increased to 16.4% from 14.7%, due to an increase in gone concern loss-absorbing capacity of USD 5.6bn, partly offset by the aforementioned increase in RWA.

Our gone concern leverage ratio increased to 5.2% from 4.6%, reflecting the aforementioned increase in gone concern loss-absorbing capacity and the aforementioned decrease in the LRD.

Swiss SRB total loss-absorbing capacity movement

USD m		Swiss SRB
Going concern capital		
Common equity tier 1 capital as of 31.12.22		45,457
Operating profit before tax		1,495
Current tax (expense) / benefit		(487)
of which: related to corporate alternative minimum tax		(122)
Share repurchase program		(1,279)
Compensation- and own share-related capital components		(106)
Foreign currency translation effects, before tax		107
Other ¹		(598)
Common equity tier 1 capital as of 31.3.23		44,590
Loss-absorbing additional tier 1 capital as of 31.12.22		12,864
Interest rate risk hedge, foreign currency translation and other effects		239
Loss-absorbing additional tier 1 capital as of 31.3.23		13,104
Total going concern capital as of 31.12.22		58,321
Total going concern capital as of 31.3.23		57,694
Gone concern loss-absorbing capacity		
Tier 2 capital as of 31.12.22		2,958
Interest rate risk hedge, foreign currency translation and other effects		17
Tier 2 capital as of 31.3.23		2,975
TLAC-eligible senior unsecured debt as of 31.12.22		44,033
Issuance of TLAC-eligible senior unsecured debt		8,556
Debt no longer eligible as gone concern loss-absorbing capacity due to residual tenor falling to below one year		(791)
Debt not eligible as gone concern loss-absorbing capacity due to outstanding tender offer		(2,966)
Interest rate risk hedge, foreign currency translation and other effects		818
TLAC-eligible senior unsecured debt as of 31.3.23		49,649
Total gone concern loss-absorbing capacity as of 31.12.22		46,991
Total gone concern loss-absorbing capacity as of 31.3.23		52,624
Total loss-absorbing capacity		
Total loss-absorbing capacity as of 31.12.22		105,312
Total loss-absorbing capacity as of 31.3.23		110,318

¹ Includes dividend accruals for the current year (negative USD 0.4bn) and movements related to other items.

Reconciliation of IFRS equity to Swiss SRB common equity tier 1 capital

USD m	31.3.23	31.12.22
Total IFRS equity	57,106	57,218
Equity attributable to non-controlling interests	(352)	(342)
Defined benefit plans, net of tax	(361)	(311)
Deferred tax assets recognized for tax loss carry-forwards	(4,019)	(4,077)
Deferred tax assets for unused tax credits	(122)	
Deferred tax assets on temporary differences, excess over threshold	(139)	(64)
Goodwill, net of tax ¹	(5,758)	(5,754)
Intangible assets, net of tax	(148)	(150)
Compensation-related components (not recognized in net profit)	(1,711)	(2,287)
Expected losses on advanced internal ratings-based portfolio less provisions	(439)	(471)
Unrealized (gains) / losses from cash flow hedges, net of tax	3,652	4,234
Own credit related to (gains) / losses on financial liabilities measured at fair value that existed at the balance sheet date, net of tax	(582)	(523)
Own credit related to (gains) / losses on derivative financial instruments that existed at the balance sheet date	(125)	(105)
Prudential valuation adjustments	(228)	(201)
Accruals for dividends to shareholders for 2022	(1,683)	(1,683)
Other ²	(499)	(29)
Total common equity tier 1 capital	44,590	45,457

¹ Includes goodwill related to significant investments in financial institutions of USD 20m as of 31 March 2023 (USD 20m as of 31 December 2022) presented on the balance sheet line Investments in associates.

² Includes dividend accruals for the current year and other items.

Additional information

Sensitivity to currency movements

Risk-weighted assets

We estimate that a 10% depreciation of the US dollar against other currencies would have increased our RWA by USD 14bn and our CET1 capital by USD 1.4bn as of 31 March 2023 (31 December 2022: USD 13bn and USD 1.4bn, respectively) and decreased our CET1 capital ratio 13 basis points (31 December 2022: 13 basis points). Conversely, we estimate that a 10% appreciation of the US dollar against other currencies would have decreased our RWA by USD 12bn and our CET1 capital by USD 1.3bn (31 December 2022: USD 12bn and USD 1.3bn, respectively) and increased our CET1 capital ratio 13 basis points (31 December 2022: 13 basis points).

Leverage ratio denominator

We estimate that a 10% depreciation of the US dollar against other currencies would have increased our LRD by USD 62bn as of 31 March 2023 (31 December 2022: USD 63bn) and decreased our Swiss SRB going concern leverage ratio 17 basis points (31 December 2022: 17 basis points). Conversely, we estimate that a 10% appreciation of the US dollar against other currencies would have decreased our LRD by USD 56bn (31 December 2022: USD 57bn) and increased our Swiss SRB going concern leverage ratio 17 basis points (31 December 2022: 17 basis points).

The aforementioned sensitivities do not consider foreign currency translation effects related to defined benefit plans other than those related to the currency translation of the net equity of foreign operations.

- › Refer to “Active management of sensitivity to foreign exchange movements” under “Capital management” in the “Capital, liquidity and funding, and balance sheet” section of our Annual Report 2022 for more information

Estimated effect on capital from litigation, regulatory and similar matters subject to provisions and contingent liabilities

We have estimated the loss in capital that we could incur as a result of the risks associated with the matters described in “Note 13 Provisions and contingent liabilities” in the “Consolidated financial statements” section of this report. We have employed for this purpose the advanced measurement approach (AMA) methodology that we use when determining the capital requirements associated with operational risks, based on a 99.9% confidence level over a 12-month horizon. The methodology takes into consideration UBS and industry experience for the AMA operational risk categories to which those matters correspond, as well as the external environment affecting risks of these types, in isolation from other areas. On this basis, we estimate the maximum loss in capital that we could incur over a 12-month period as a result of our risks associated with these operational risk categories at USD 4.0bn as of 31 March 2023. This estimate is not related to and does not take into account any provisions recognized for any of these matters and does not constitute a subjective assessment of our actual exposure in any of these matters.

- › Refer to “Non-financial risk” in the “Risk management and control” section of our Annual Report 2022 for more information
- › Refer to “Note 13 Provisions and contingent liabilities” in the “Consolidated financial statements” section of this report for more information

Risk-weighted assets

During the first quarter of 2023, RWA increased by USD 2.1bn to USD 321.7bn, reflecting increases of USD 1.1bn from model updates and USD 1.0bn from currency effects, partly offset by a decrease of USD 0.1bn from asset size and other movements.

Movement in risk-weighted assets by key driver

<i>USD bn</i>	RWA as of 31.12.22	Currency effects	Methodology and policy changes	Model updates / changes	Regulatory add-ons	Asset size and other ¹	RWA as of 31.3.23
Credit and counterparty credit risk ²	200.5	1.0		1.4		(1.9)	201.0
Non-counterparty-related risk ³	24.2	0.1				(0.1)	24.2
Market risk	13.5			(0.3)		1.9	15.1
Operational risk	81.4						81.4
Total	319.6	1.0		1.1		(0.1)	321.7

¹ Includes the Pillar 3 categories “Asset size,” “Credit quality of counterparties,” “Acquisitions and disposals” and “Other.” For more information, refer to our 31 March 2023 Pillar 3 report, available under “Pillar 3 disclosures” at ubs.com/investors. ² Includes settlement risk, credit valuation adjustments, equity exposures in the banking book, investments in funds and securitization exposures in the banking book.

³ Noncounterparty-related risk includes deferred tax assets recognized for temporary differences, property, equipment, software and other items.

Credit and counterparty credit risk

Credit and counterparty credit risk RWA were USD 201.0bn as of 31 March 2023. The increase of USD 0.5bn included currency effects of USD 1.0bn.

Asset size and other movements resulted in a USD 1.9bn decrease in RWA.

- Investment Bank RWA decreased by USD 1.7bn, mainly reflecting lower RWA on securities financing transactions.
- Group Functions RWA decreased by USD 1.1bn, mainly reflecting higher RWA allocations from Group Treasury to the business divisions on liquid assets and structural hedges.
- Personal & Corporate Banking RWA increased by USD 0.9bn, primarily driven by higher RWA from loans and higher RWA allocated from Group Functions mainly on liquid assets and structural hedges.
- Global Wealth Management RWA were unchanged, mainly as higher RWA on derivatives were offset by lower RWA on loans and other commitments.
- Asset Management RWA were unchanged.

Model updates resulted in an RWA increase of USD 1.4bn, primarily driven by a USD 0.8bn quarterly phase-in impact related to updates to the loss-given-default (LGD) model for private equity and hedge fund financing trades, and a USD 0.5bn increase related to an update to the LGD model for corporate clients and financial institutions.

- › Refer to the “Risk management and control” section of this report for more information
- › Refer to our 31 March 2023 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more information
- › Refer to “Credit risk models” in the “Risk management and control” section of our Annual Report 2022 for more information



Market risk

Market risk RWA increased by USD 1.6bn to USD 15.1bn in the first quarter of 2023, mainly due to a USD 1.9bn increase in asset size and other movements in the Investment Bank's Global Markets business. This was partly offset by a decrease of USD 0.3bn related to ongoing parameter updates of our value-at-risk (VaR) model. We are in discussions with FINMA regarding the integration of time decay into the regulatory VaR, which would replace the current add-on.

- › Refer to the “Risk management and control” section of this report for more information
- › Refer to our 31 March 2023 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, for more information
- › Refer to “Market risk” in the “Risk management and control” section of our Annual Report 2022 for more information

Operational risk

Operational risk RWA were unchanged at USD 81.4bn.

- › Refer to “Note 13 Provisions and contingent liabilities” in the “Consolidated financial statements” section of this report for more information about the French cross-border matter
- › Refer to “Non-financial risk” in the “Risk management and control” section of our Annual Report 2022 for information about the advanced measurement approach model

Outlook

We expect that regulatory-driven updates to models will result in an RWA increase of around USD 4bn in 2023, including USD 1.1bn from the updates implemented in the first quarter. The full-year outlook for 2023 includes the RWA impact from the recalibration of certain multipliers as a result of our improvements to models, which are expected to reduce our RWA, and is subject to regulatory approval. The extent and timing of RWA changes may vary as model updates are completed and receive regulatory approval, along with changes in the composition of the relevant portfolios. The outlook furthermore reflects model updates for UBS Group AG consolidated as per the structure of 31 March 2023, without considering the impacts of our anticipated acquisition of Credit Suisse. Refer to the “Acquisition of Credit Suisse” section of this report for more information about our anticipated acquisition of Credit Suisse.

Risk-weighted assets by business division and Group Functions

<i>USD bn</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total RWA
			31.3.23			
Credit and counterparty credit risk ¹	68.4	66.9	3.0	57.0	5.7	201.0
Non-counterparty-related risk ²	5.8	1.9	0.6	3.8	12.1	24.2
Market risk	1.8	0.0		11.5	1.8	15.1
Operational risk	37.6	9.1	3.2	21.3	10.1	81.4
Total	113.6	77.9	6.7	93.7	29.7	321.7
			31.12.22			
Credit and counterparty credit risk ¹	68.4	64.9	3.0	57.7	6.5	200.5
Non-counterparty-related risk ²	5.9	1.9	0.6	3.7	12.1	24.2
Market risk	1.6	0.0		10.1	1.8	13.5
Operational risk	37.6	9.1	3.2	21.3	10.1	81.4
Total	113.5	75.9	6.7	92.8	30.6	319.6
			31.3.23 vs 31.12.22			
Credit and counterparty credit risk ¹	0.1	2.0	0.0	(0.7)	(0.8)	0.5
Non-counterparty-related risk ²	(0.2)	0.0	0.0	0.2	(0.1)	0.0
Market risk	0.2	0.0		1.4	0.0	1.6
Operational risk	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.1	2.0	0.0	0.9	(0.9)	2.1

¹ Includes settlement risk, credit valuation adjustments, equity exposures in the banking book and securitization exposures in the banking book. ² Non-counterparty-related risk includes deferred tax assets recognized for temporary differences (31 March 2023: USD 11.3bn; 31 December 2022: USD 11.4bn), as well as property, equipment, software and other items (31 March 2023: USD 12.8bn; 31 December 2022: USD 12.9bn).

Leverage ratio denominator

During the first quarter of 2023, the LRD decreased by USD 14.0bn to USD 1,014.4bn, driven by an USD 18.7bn decrease in asset size and other movements, partly offset by a USD 4.7bn increase due to currency effects.

Movement in leverage ratio denominator by key driver

<i>USD bn</i>	LRD as of 31.12.22	Currency effects	Asset size and other	LRD as of 31.3.23
On-balance sheet exposures (excluding derivatives and securities financing transactions) ¹	816.0	4.1	(16.1)	804.0
Derivatives	90.3	0.3	1.0	91.6
Securities financing transactions	98.6	0.1	(1.9)	96.9
Off-balance sheet items	34.4	0.2	(1.7)	32.9
Deduction items	(10.8)	0.0	(0.1)	(10.9)
Total	1,028.5	4.7	(18.7)	1,014.4

¹ The exposures exclude derivative financial instruments, cash collateral receivables on derivative instruments, receivables from securities financing transactions, and margin loans, as well as prime brokerage receivables and financial assets at fair value not held for trading, both related to securities financing transactions. These exposures are presented separately under Derivatives and Securities financing transactions in this table.

The LRD movements described below exclude currency effects.

On-balance sheet exposures decreased by USD 16.1bn, mainly driven by lower central bank balances, partly offset by an increase in trading portfolio assets in the Investment Bank.

Derivatives increased by USD 1.0bn, primarily in the Investment Bank, reflecting lower netting and higher trading volumes, largely offset by market-driven decreases and lower margin requirements.

Securities financing transactions decreased by USD 1.9bn, mainly driven by roll-offs of excess cash reinvestment trades and lower collateral sourcing activities, partly offset by an increase in brokerage receivables and higher client activity levels.

Off-balance sheet items decreased by USD 1.7bn, mainly due to lower forward starting reverse repurchase agreements in Group Treasury.

› Refer to the “Balance sheet and off-balance sheet” section of this report for more information about balance sheet movements

Leverage ratio denominator by business division and Group Functions

<i>USD bn</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
						31.3.23
Total IFRS assets	376.6	238.0	18.5	361.9	58.1	1,053.1
Difference in scope of consolidation ¹	0.0	0.0	(14.3)	(0.1)	0.1	(14.3)
Less: derivatives and securities financing transactions ²	(26.0)	(13.9)	(0.1)	(169.5)	(25.3)	(234.8)
On-balance sheet exposures	350.7	224.1	4.1	192.3	32.9	804.0
Derivatives	5.3	1.1	0.0	82.5	2.6	91.6
Securities financing transactions	23.1	13.0	0.1	43.9	16.7	96.9
Off-balance sheet items	8.3	16.8		7.0	0.7	32.9
Items deducted from Swiss SRB tier 1 capital	(5.2)	(0.1)	(1.2)	(0.4)	(3.9)	(10.9)
Total	382.2	254.9	3.0	325.4	49.0	1,014.4
						31.12.22
Total IFRS assets	388.5	235.2	17.3	391.3	71.9	1,104.4
Difference in scope of consolidation ¹	0.0	0.0	(13.2)	(0.1)	0.0	(13.3)
Less: derivatives and securities financing transactions ²	(23.7)	(11.9)	(0.1)	(201.7)	(37.7)	(275.0)
On-balance sheet exposures	364.8	223.4	4.0	189.5	34.2	816.0
Derivatives	5.4	1.5	0.0	80.0	3.3	90.3
Securities financing transactions	20.5	10.8	0.1	40.4	26.8	98.6
Off-balance sheet items	8.8	16.6		6.9	2.1	34.4
Items deducted from Swiss SRB tier 1 capital	(5.2)	(0.2)	(1.2)	(0.4)	(3.9)	(10.8)
Total	394.4	252.1	2.9	316.6	62.6	1,028.5
						31.3.23 vs 31.12.22
Total IFRS assets	(11.9)	2.8	1.1	(29.4)	(13.9)	(51.2)
Difference in scope of consolidation ¹	0.0	0.0	(1.0)	0.0	0.0	(1.0)
Less: derivatives and securities financing transactions ²	(2.3)	(2.1)	0.0	32.2	12.5	40.3
On-balance sheet exposures	(14.2)	0.7	0.1	2.8	(1.3)	(11.9)
Derivatives	(0.1)	(0.4)	0.0	2.5	(0.7)	1.3
Securities financing transactions	2.6	2.3	0.0	3.5	(10.1)	(1.8)
Off-balance sheet items	(0.5)	0.2		0.1	(1.4)	(1.5)
Items deducted from Swiss SRB tier 1 capital	0.0	0.0	0.0	0.0	(0.1)	(0.1)
Total	(12.1)	2.8	0.1	8.8	(13.6)	(14.0)

¹ Represents the difference between the IFRS and the regulatory scope of consolidation, which is the applicable scope for the leverage ratio denominator calculation. ² The exposures consist of derivative financial instruments, cash collateral receivables on derivative instruments, receivables from securities financing transactions, and margin loans, as well as prime brokerage receivables and financial assets at fair value not held for trading, both related to securities financing transactions, all of which are in accordance with the regulatory scope of consolidation. These exposures are presented separately under Derivatives and Securities financing transactions in this table.

Equity attribution and return on attributed equity

Under our equity attribution framework, tangible equity is attributed based on a weighting of 50% each for average risk-weighted assets (RWA) and average leverage ratio denominator (LRD), which both include resource allocations from Group Functions to the business divisions (the BDs). Average RWA and LRD are converted to common equity tier 1 (CET1) capital equivalents using capital ratios of 12.5% and 3.75%, respectively. If the attributed tangible equity calculated under the weighted-driver approach is less than the CET1 capital equivalent of risk-based capital (RBC) for any BD, the CET1 capital equivalent of RBC is used as a floor for that BD.

In addition to tangible equity, we allocate equity to the BDs to support goodwill and intangible assets.

Furthermore, we allocate to the BDs attributed equity related to certain CET1 deduction items, such as compensation-related components and expected losses on the advanced internal ratings-based portfolio less provisions.

We attribute all remaining Basel III capital deduction items to Group Functions. These items include deferred tax assets (DTAs) recognized for tax loss carry-forwards, DTAs on temporary differences in excess of the threshold, accruals for shareholder returns and unrealized gains / losses from cash flow hedges.

- Refer to the “Capital, liquidity and funding, and balance sheet” section of our Annual Report 2022 for more information about the equity attribution framework
- Refer to the “Balance sheet and off-balance sheet” section of this report for more information about movements in equity attributable to shareholders

Average attributed equity

USD bn	For the quarter ended		
	31.3.23	31.12.22	31.3.22
Global Wealth Management	20.3	20.3	19.9
Personal & Corporate Banking	9.7	9.3	9.4
Asset Management	1.7	1.7	1.8
Investment Bank	13.0	12.7	13.2
Group Functions	12.0	12.4	15.5
of which: deferred tax assets ¹	4.9	4.9	5.4
of which: related to retained RWA and LRD ²	2.5	3.0	3.1
of which: accruals for shareholder returns and others ³	4.6	4.5	7.1
Average equity attributed to business divisions and Group Functions	56.8	56.3	59.8

¹ Includes average attributed equity related to the Basel III capital deduction items for deferred tax assets (deferred tax assets recognized for tax loss carry-forwards and deferred tax assets on temporary differences, excess over threshold), as well as retained risk-weighted assets (RWA) and leverage ratio denominator (LRD) related to deferred tax assets. ² Excludes average attributed equity related to retained RWA and LRD related to deferred tax assets. ³ Includes attributed equity related to dividend accruals, unrealized gains / losses from cash flow hedges, and a balancing item for capital held in excess of the 12.5% capital and 3.75% leverage ratio calibration thresholds for equity attribution.

Return on attributed equity^{1, 2}

in %	For the quarter ended		
	31.3.23	31.12.22	31.3.22
Global Wealth Management	23.9	20.9	26.3
Personal & Corporate Banking	24.7	22.8	18.2
Asset Management	21.8	29.3	39.5
Investment Bank	14.6	3.5	28.2

¹ Return on attributed equity for Group Functions is not shown, as it is not meaningful. ² Refer to “Alternative performance measures” in the appendix to this report for the definition and calculation method.

Liquidity and funding management

Strategy, objectives and governance

This section provides liquidity and funding management information and should be read in conjunction with “Liquidity and funding management” in the “Capital, liquidity and funding, and balance sheet” section of our Annual Report 2022, which provides more information about the Group’s strategy, objectives and governance in connection with liquidity and funding management.

Liquidity coverage ratio

The quarterly average liquidity coverage ratio (the LCR) of UBS Group decreased 1.8 percentage points to 161.9%, remaining above the prudential requirement communicated by the Swiss Financial Market Supervisory Authority (FINMA).

The movement in the average LCR was driven by a reduction in high-quality liquid assets (HQLA) of USD 8.4bn to USD 230.2bn, mainly due to higher net funding needs driven by higher trading portfolio assets, increased loans to customers and lower net cash collateral payables on derivative instruments, partly offset by lower receivables from securities financing transactions and higher debt issued designated at fair value.

The decrease in HQLA was largely offset by a USD 3.8bn reduction in net cash outflows to USD 142.2bn, mainly due to lower outflows from customer deposits, partly offset by higher outflows from maturing debt issued.

- › Refer to our 31 March 2023 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, and to “Liquidity and funding management” in the “Capital, liquidity and funding, and balance sheet” section of our Annual Report 2022 for more information about the LCR

Liquidity coverage ratio

<i>USD bn, except where indicated</i>	Average 1Q23 ¹	Average 4Q22 ¹
High-quality liquid assets	230.2	238.6
Net cash outflows ²	142.2	146.0
Liquidity coverage ratio (%)³	161.9	163.7

¹ Calculated based on an average of 64 data points in the first quarter of 2023 and 63 data points in the fourth quarter of 2022. ² Represents the net cash outflows expected over a stress period of 30 calendar days. ³ Calculated after the application of haircuts and inflow and outflow rates, as well as, where applicable, caps on Level 2 assets and cash inflows.

Net stable funding ratio

As of 31 March 2023, the net stable funding ratio (the NSFR) decreased by 2.1 percentage points to 117.7%, remaining above the prudential requirement communicated by FINMA.

The movement in the NSFR was driven by USD 4.2bn higher required stable funding, mainly due to an increase in trading portfolio assets, and USD 5.2bn lower available stable funding, mainly due to a decrease in customer deposits, partly offset by increased debt securities issued.

- › Refer to our 31 March 2023 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors, and to “Liquidity and funding management” in the “Capital, liquidity and funding, and balance sheet” section of our Annual Report 2022 for more information about the NSFR

Net stable funding ratio

<i>USD bn, except where indicated</i>	31.3.23	31.12.22
Available stable funding	556.3	561.4
Required stable funding	472.7	468.5
Net stable funding ratio (%)	117.7	119.8

Balance sheet and off-balance sheet

Strategy, objectives and governance

This section provides balance sheet and off-balance sheet information and should be read in conjunction with “Balance sheet and off-balance sheet” in the “Capital, liquidity and funding, and balance sheet” section of our Annual Report 2022, which provides more information about the Group’s balance sheet and off-balance sheet positions.

Balances disclosed in this report represent quarter-end positions, unless indicated otherwise. Intra-quarter balances fluctuate in the ordinary course of business and may differ from quarter-end positions.

Balance sheet assets (31 March 2023 vs 31 December 2022)

Total assets were USD 1,053.1bn as of 31 March 2023. The net decrease of USD 51.3bn included an increase due to currency effects of approximately USD 4.4bn.

Derivatives and cash collateral receivables on derivative instruments decreased by USD 38.1bn, mainly in our Derivatives & Solutions and Financing businesses in the Investment Bank, primarily reflecting decreases in foreign currency contracts, where the contracts in place at the end of March 2023 had lower fair values compared with the contracts in place at the end of December 2022. Cash and balances at central banks decreased by USD 25.2bn, mainly driven by lower customer deposits, higher trading portfolio assets and lower brokerage payables, partly offset by inflows from roll-offs of securities financing transactions. Securities financing transactions at amortized cost decreased by USD 7.8bn, predominantly reflecting maturities of excess cash reinvestment trades and lower collateral sourcing.

These decreases were partly offset by a USD 9.9bn increase in trading portfolio assets, primarily reflecting higher inventory levels held to hedge client positions in our Financing and Derivatives & Solutions businesses. Other financial assets measured at amortized cost and fair value increased by USD 1.9bn, mainly driven by higher securities financing transactions measured at fair value due to higher client activity levels. Brokerage receivables increased by USD 3.4bn, mainly in our Financing business as decreases in client lending were more than offset by lower netting effects against Brokerage payables. Lending assets increased by USD 3.0bn, mainly reflecting currency effects.

› Refer to the “Consolidated financial statements” section of this report for more information

Assets

USD bn	As of		% change from
	31.3.23	31.12.22	31.12.22
Cash and balances at central banks	144.2	169.4	(15)
Lending ¹	405.0	402.0	1
Securities financing transactions at amortized cost	60.0	67.8	(12)
Trading portfolio ²	117.8	107.9	9
Derivatives and cash collateral receivables on derivative instruments	147.0	185.1	(21)
Brokerage receivables	21.0	17.6	20
Other financial assets measured at amortized cost and fair value ³	104.1	102.2	2
Non-financial assets and financial assets for unit-linked investment contracts	54.0	52.3	3
Total assets	1,053.1	1,104.4	(5)

¹ Consists of loans and advances to customers and banks. ² Consists of financial assets at fair value held for trading. ³ Consists of financial assets at fair value not held for trading, financial assets measured at fair value through other comprehensive income and other financial assets measured at amortized cost, but excludes financial assets for unit-linked investment contracts.

Balance sheet liabilities (31 March 2023 vs 31 December 2022)

Total liabilities were USD 996.0bn as of 31 March 2023. The net decrease of USD 51.1bn included an increase due to currency effects of approximately USD 4.0bn.

Derivatives and cash collateral payables on derivative instruments decreased by USD 42.9bn, mainly in our Derivatives & Solutions and Financing businesses, primarily reflecting roll-offs of foreign currency contracts, in line with the asset side. Customer deposits decreased by USD 19.5bn, predominantly reflecting decreases in Global Wealth Management with clients shifting US dollar deposits to money market instruments and US-government securities, partly offset by net new inflows into fixed-term and savings deposit products. Other financial liabilities measured at amortized cost and fair value decreased by USD 4.8bn, mainly driven by lower securities financing transactions measured at fair value.

These decreases were partly offset by a USD 7.5bn increase in debt issued designated at fair value and long-term debt issued measured at amortized cost, mainly driven by net new issuances of senior unsecured debt that contributed to total loss-absorbing capacity in Group Treasury and market-driven movements on equity-linked notes in the Derivatives & Solutions business as equity markets increased during the first quarter of 2023. Securities financing transactions at amortized cost increased by USD 5.7bn as Group Treasury sourced additional funding for the Group. Trading portfolio liabilities increased by USD 4.9bn, mainly due to increased short positions to hedge client derivatives.

The “Liabilities by product and currency” table in this section provides more information about our funding sources.

- › Refer to “Bondholder information” at ubs.com/investors for more information about capital and senior debt instruments
- › Refer to the “Consolidated financial statements” section of this report for more information

Liabilities and equity

USD bn	As of		% change from 31.12.22
	31.3.23	31.12.22	
Short-term borrowings ¹	41.0	41.3	(1)
Securities financing transactions at amortized cost	9.9	4.2	135
Customer deposits	505.6	525.1	(4)
Debt issued designated at fair value and long-term debt issued measured at amortized cost ²	166.1	158.6	5
Trading portfolio ³	34.4	29.5	16
Derivatives and cash collateral payables on derivative instruments	148.4	191.3	(22)
Brokerage payables	43.9	45.1	(3)
Other financial liabilities measured at amortized cost and fair value ⁴	21.8	26.6	(18)
Non-financial liabilities and financial liabilities related to unit-linked investment contracts	25.0	25.5	(2)
Total liabilities	996.0	1,047.1	(5)
Share capital	0.3	0.3	0
Share premium	13.0	13.5	(4)
Treasury shares	(8.2)	(6.9)	20
Retained earnings	51.1	50.0	2
Other comprehensive income ⁵	0.6	(0.1)	
Total equity attributable to shareholders	56.8	56.9	0
Equity attributable to non-controlling interests	0.4	0.3	3
Total equity	57.1	57.2	0
Total liabilities and equity	1,053.1	1,104.4	(5)

¹ Consists of short-term debt issued measured at amortized cost and amounts due to banks. ² The classification of debt issued measured at amortized cost into short-term and long-term is based on original contractual maturity and therefore long-term debt also includes debt with a remaining time to maturity of less than one year. This classification does not consider any early redemption features. ³ Consists of financial liabilities at fair value held for trading. ⁴ Consists of other financial liabilities measured at amortized cost and other financial liabilities designated at fair value, but excludes financial liabilities related to unit-linked investment contracts. ⁵ Excludes other comprehensive income related to defined benefit plans and own credit, which is recorded directly in Retained earnings.

Equity (31 March 2023 vs 31 December 2022)

Equity attributable to shareholders decreased by USD 122m to USD 56,754m as of 31 March 2023.

The decrease of USD 122m was mainly driven by net treasury share activity that reduced equity by USD 2,149m. This was predominantly due to repurchases of USD 1,279m of shares under our 2022 share repurchase program and the purchase of USD 935m of shares in relation to employee share-based compensation plans.

The decrease was largely offset by total comprehensive income attributable to shareholders of USD 1,820m, reflecting net profit of USD 1,029m and other comprehensive income (OCI) of USD 791m. OCI mainly included cash flow hedge OCI of USD 606m and OCI related to foreign currency translation of USD 106m. In addition, deferred share-based compensation awards of USD 199m were expensed in the income statement, increasing share premium.

The payment of the 2022 dividend of USD 0.55 per share, approved by shareholders at the 2023 Annual General Meeting, reduced equity attributable to shareholders by USD 1.7bn in April 2023.

- › Refer to the “Group performance” and “Consolidated financial statements” sections of this report for more information
- › Refer to “Reconciliation of IFRS equity to Swiss SRB common equity tier 1 capital” in the “Capital management” section of this report for more information about the effects of OCI on common equity tier 1 capital
- › Refer to the “Share information and earnings per share” section of this report for more information about our share repurchase programs



Liabilities by product and currency

USD bn	All currencies		of which: USD		USD Equivalent		of which: EUR	
	31.3.23	31.12.22	31.3.23	31.12.22	31.3.23	31.12.22	31.3.23	31.12.22
Short-term borrowings	41.0	41.3	24.1	23.3	4.6	3.8	3.8	4.4
of which: amounts due to banks	13.6	11.6	6.1	4.2	4.5	3.7	0.7	1.1
of which: short-term debt issued ¹	27.4	29.7	18.0	19.0	0.2	0.1	3.2	3.3
Securities financing transactions at amortized cost	9.9	4.2	9.1	3.6	0.0	0.0	0.2	0.2
Customer deposits	505.6	525.1	211.5	226.6	198.3	198.5	50.8	53.6
of which: demand deposits	165.9	180.8	43.6	47.1	66.7	71.4	31.8	37.3
of which: retail savings / deposits	149.5	149.3	24.3	24.6	119.8	119.0	5.3	5.6
of which: sweep deposits	53.4	69.2	53.4	69.2	0.0	0.0	0.0	0.0
of which: time deposits	136.9	125.7	90.2	85.7	11.7	8.1	13.8	10.6
Debt issued designated at fair value and long-term debt issued measured at amortized cost ²	166.1	158.6	103.0	98.4	17.2	16.9	33.1	29.6
Trading portfolio ³	34.4	29.5	13.0	12.1	0.9	0.8	8.7	8.1
Derivatives and cash collateral payables on derivative instruments	148.4	191.3	123.7	160.4	3.0	3.8	12.8	15.8
Brokerage payables	43.9	45.1	32.2	32.3	0.5	0.4	2.9	3.2
Other financial liabilities measured at amortized cost and fair value ⁴	21.8	26.6	10.2	16.3	2.3	1.7	5.4	4.8
Non-financial liabilities and financial liabilities related to unit-linked investment contracts	25.0	25.5	5.0	4.7	1.7	1.5	1.8	2.9
Total liabilities	996.0	1,047.1	531.7	577.7	228.5	227.6	119.5	122.6

¹ Short-term debt issued consists of certificates of deposit, commercial paper, acceptances and promissory notes, and other money market paper. ² The classification of debt issued measured at amortized cost into short-term and long-term is based on original contractual maturity and therefore long-term debt also includes debt with a remaining time to maturity of less than one year. This classification does not consider any early redemption features. ³ Consists of financial liabilities at fair value held for trading. ⁴ Consists of other financial liabilities measured at amortized cost and other financial liabilities designated at fair value, but excludes financial liabilities related to unit-linked investment contracts.

Off-balance sheet (31 March 2023 vs 31 December 2022)

Guarantees increased by USD 0.6bn, mainly in Group Treasury, relating to guarantees issued to corporate clients. Loan commitments and committed unconditionally revocable credit lines were broadly unchanged as of 31 March 2023 compared with 31 December 2022. Forward starting reverse repurchase agreements increased by USD 0.9bn and forward starting repurchase agreements increased by USD 4.1bn, both in Group Treasury, reflecting fluctuations in the levels of business division activity in short-dated securities financing transactions.

Off-balance sheet

USD bn	As of		% change from
	31.3.23	31.12.22	
Guarantees ^{1,2}	21.2	20.6	3
Loan commitments ¹	39.8	40.0	(1)
Committed unconditionally revocable credit lines	41.1	41.4	(1)
Forward starting reverse repurchase agreements	4.7	3.8	23
Forward starting repurchase agreements	6.0	1.9	221

¹ Guarantees and loan commitments are shown net of sub-participations. ² Includes guarantees measured at fair value through profit or loss.

Share information and earnings per share

UBS Group AG shares are listed on the SIX Swiss Exchange (SIX). They are also listed on the New York Stock Exchange (the NYSE) as global registered shares. Each share has a nominal value of CHF 0.10. Shares issued were unchanged in the first quarter of 2023 compared with the fourth quarter of 2022.

In the second quarter of 2023, the share capital currency of UBS Group AG will be changed from the Swiss franc to the US dollar, as approved by shareholders at the 2023 Annual General Meeting (the AGM). This will align the share capital currency with the financial statement presentation currency of UBS Group AG. The share capital of UBS Group AG will be slightly reduced to a nominal value per share of USD 0.10 (from CHF 0.10 currently), with the amount of the reduction allocated to the capital contribution reserve (presented as Share premium in the consolidated financial statements). Total equity reported for UBS Group AG consolidated and standalone will not be affected by this change.

We held 472m shares as of 31 March 2023, of which 361m shares were acquired under our 2021 and 2022 share repurchase programs and originally intended for cancellation. Upon completion of the anticipated acquisition of Credit Suisse, a portion of the shares repurchased under the 2022 program are expected to be transferred to Credit Suisse shareholders in an exchange of shares as consideration for the transaction. The 62.5m shares repurchased after 18 February 2022 under the 2021 program for a total acquisition cost of USD 1,115m (CHF 1,035m) will be canceled by means of a capital reduction in the second quarter of 2023, as approved by shareholders at the 2023 AGM.

The remaining 111m shares are primarily held to hedge our share delivery obligations related to employee share-based compensation and participation plans.

Treasury shares held increased by 55m shares in the first quarter of 2023. This mainly reflected repurchases of 64.6m shares (acquisition cost of USD 1,300m, or CHF 1,202m) under our 2022 share repurchase program and 27.1m shares purchased from the market to hedge future share delivery obligations related to employee share-based compensation awards, partly offset by the delivery of treasury shares under our share-based compensation plans.

Shares acquired under our 2022 program totaled 299m as of 31 March 2023 for a total acquisition cost of USD 5,245m (CHF 5,010m). A new two-year share repurchase program of up to USD 6bn was approved by shareholders at the 2023 AGM. However, we have temporarily suspended repurchases under the share repurchase programs due to the anticipated acquisition of Credit Suisse.

➤ Refer to the “Equity, CET1 capital and returns” table in the “Group performance” section of this report for more information about equity attributable to shareholders and tangible equity attributable to shareholders

	As of or for the quarter ended		
	31.3.23	31.12.22	31.3.22
Basic and diluted earnings (USD m)			
Net profit / (loss) attributable to shareholders for basic EPS	1,029	1,653	2,136
Less: (profit) / loss on own equity derivative contracts	0	0	0
Net profit / (loss) attributable to shareholders for diluted EPS	1,029	1,653	2,136
Weighted average shares outstanding			
Weighted average shares outstanding for basic EPS ¹	3,072,799,315	3,141,689,290	3,380,254,237
Effect of dilutive potential shares resulting from notional employee shares, in-the-money options and warrants outstanding ²	140,868,722	136,909,896	148,405,048
Weighted average shares outstanding for diluted EPS	3,213,668,037	3,278,599,186	3,528,659,285
Earnings per share (USD)			
Basic	0.33	0.53	0.63
Diluted	0.32	0.50	0.61
Shares outstanding and potentially dilutive instruments			
Shares issued	3,524,635,722	3,524,635,722	3,702,422,995
Treasury shares ³	472,352,835	416,909,010	353,284,628
of which: related to the 2021 share repurchase program	62,548,000	62,548,000	240,335,273
of which: related to the 2022 share repurchase program	298,537,950	233,901,950	
Shares outstanding	3,052,282,887	3,107,726,712	3,349,138,367
Potentially dilutive instruments ⁴	4,859,813	5,873,046	12,337,848
Other key figures			
Total book value per share (USD)	18.59	18.30	17.57
Tangible book value per share (USD)	16.54	16.28	15.67
Share price (USD) ⁵	21.07	18.61	19.64
Market capitalization (USD m)	64,322	57,848	65,775

¹ The weighted average shares outstanding for basic earnings per share are calculated by taking the number of shares at the beginning of the period, adjusted by the number of shares acquired or issued during the period, multiplied by a time-weighted factor for the period outstanding. As a result, balances are affected by the timing of acquisitions and issuances during the period. ² The weighted average number of shares for notional employee awards with performance conditions reflects all potentially dilutive shares that are expected to vest under the terms of the awards. ³ Based on a settlement date view. ⁴ Reflects potential shares that could dilute basic earnings per share in the future, but were not dilutive for any of the periods presented. It mainly includes equity-based awards subject to absolute and relative performance conditions and equity derivative contracts. ⁵ Represents the share price as listed on the SIX Swiss Exchange, translated to US dollars using the closing exchange rate as of the respective date.

Ticker symbols UBS Group AG

Trading exchange	SIX / NYSE	Bloomberg	Reuters
SIX Swiss Exchange	UBSG	UBSG SW	UBSG.S
New York Stock Exchange	UBS	UBS UN	UBS.N

Security identification codes

ISIN	CH0244767585
Valoren	24 476 758
CUSIP	CIINS H42097 10 7

Consolidated financial statements

Unaudited

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UBS Group AG interim consolidated financial statements (unaudited)

Income statement

USD m	Note	For the quarter ended		
		31.3.23	31.12.22	31.3.22
Interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	3	4,777	4,180	2,144
Interest expense from financial instruments measured at amortized cost	3	(3,814)	(2,954)	(781)
Net interest income from financial instruments measured at fair value through profit or loss and other	3	425	363	408
Net interest income	3	1,388	1,589	1,771
Other net income from financial instruments measured at fair value through profit or loss		2,681	1,876	2,226
Fee and commission income	4	5,053	4,771	5,837
Fee and commission expense	4	(447)	(413)	(484)
Net fee and commission income	4	4,606	4,359	5,353
Other income		69	206	32
Total revenues		8,744	8,029	9,382
Credit loss expense / (release)	7	38	7	18
Personnel expenses	5	4,620	4,122	4,920
General and administrative expenses	6	2,065	1,420	1,208
Depreciation, amortization and impairment of non-financial assets		525	543	506
Operating expenses		7,210	6,085	6,634
Operating profit / (loss) before tax		1,495	1,937	2,729
Tax expense / (benefit)		459	280	585
Net profit / (loss)		1,037	1,657	2,144
Net profit / (loss) attributable to non-controlling interests		8	4	8
Net profit / (loss) attributable to shareholders		1,029	1,653	2,136
Earnings per share (USD)				
Basic		0.33	0.53	0.63
Diluted		0.32	0.50	0.61

Statement of comprehensive income

USD m	For the quarter ended		
	31.3.23	31.12.22	31.3.22
Comprehensive income attributable to shareholders¹			
Net profit / (loss)	1,029	1,653	2,136
Other comprehensive income that may be reclassified to the income statement			
Foreign currency translation			
Foreign currency translation movements related to net assets of foreign operations, before tax	236	1,753	(482)
Effective portion of changes in fair value of hedging instruments designated as net investment hedges, before tax	(127)	(798)	217
Foreign currency translation differences on foreign operations reclassified to the income statement	(1)	0	0
Effective portion of changes in fair value of hedging instruments designated as net investment hedges reclassified to the income statement	(1)	3	0
Income tax relating to foreign currency translations, including the effect of net investment hedges	(2)	(10)	2
Subtotal foreign currency translation, net of tax	106	948	(263)
Financial assets measured at fair value through other comprehensive income			
Net unrealized gains / (losses), before tax ²	2	5	(439)
Net realized (gains) / losses reclassified to the income statement from equity	0	0	0
Income tax relating to net unrealized gains / (losses)	0	0	112
Subtotal financial assets measured at fair value through other comprehensive income, net of tax	2	6	(327)
Cash flow hedges of interest rate risk			
Effective portion of changes in fair value of derivative instruments designated as cash flow hedges, before tax	387	59	(2,465)
Net (gains) / losses reclassified to the income statement from equity	349	210	(237)
Income tax relating to cash flow hedges	(130)	(43)	518
Subtotal cash flow hedges, net of tax	606	225	(2,184)
Cost of hedging			
Cost of hedging, before tax	(5)	(69)	77
Income tax relating to cost of hedging	0	3	0
Subtotal cost of hedging, net of tax	(5)	(66)	77
Total other comprehensive income that may be reclassified to the income statement, net of tax	709	1,113	(2,697)
Other comprehensive income that will not be reclassified to the income statement			
Defined benefit plans			
Gains / (losses) on defined benefit plans, before tax	25	(372)	41
Income tax relating to defined benefit plans	6	29	(1)
Subtotal defined benefit plans, net of tax	31	(343)	40
Own credit on financial liabilities designated at fair value			
Gains / (losses) from own credit on financial liabilities designated at fair value, before tax	69	(304)	423
Income tax relating to own credit on financial liabilities designated at fair value	(17)	71	0
Subtotal own credit on financial liabilities designated at fair value, net of tax	51	(233)	423
Total other comprehensive income that will not be reclassified to the income statement, net of tax	83	(576)	463
Total other comprehensive income	791	538	(2,234)
Total comprehensive income attributable to shareholders	1,820	2,190	(98)
Comprehensive income attributable to non-controlling interests			
Net profit / (loss)	8	4	8
Total other comprehensive income that will not be reclassified to the income statement, net of tax	5	13	18
Total comprehensive income attributable to non-controlling interests	13	17	26
Total comprehensive income			
Net profit / (loss)	1,037	1,657	2,144
Other comprehensive income	796	551	(2,216)
<i>of which: other comprehensive income that may be reclassified to the income statement</i>	<i>709</i>	<i>1,113</i>	<i>(2,697)</i>
<i>of which: other comprehensive income that will not be reclassified to the income statement</i>	<i>87</i>	<i>(562)</i>	<i>481</i>
Total comprehensive income	1,833	2,208	(72)

1 Refer to the "Group performance" section of this report for more information. 2 Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. As a result, the related cumulative fair value losses of USD 449m pre-tax and USD 333m post-tax, previously recognized in Other comprehensive income, have been removed from equity and adjusted against the value of the assets at the reclassification date.

Balance sheet

USD m	Note	31.3.23	31.12.22
Assets			
Cash and balances at central banks		144,183	169,445
Loans and advances to banks		14,901	14,792
Receivables from securities financing transactions measured at amortized cost		60,010	67,814
Cash collateral receivables on derivative instruments	9	32,726	35,032
Loans and advances to customers	7	390,130	387,220
Other financial assets measured at amortized cost	10	49,179	53,264
Total financial assets measured at amortized cost		691,130	727,568
Financial assets at fair value held for trading	8	117,757	107,866
<i>of which: assets pledged as collateral that may be sold or repledged by counterparties</i>		<i>37,569</i>	<i>36,742</i>
Derivative financial instruments	8, 9	114,251	150,108
Brokerage receivables	8	21,025	17,576
Financial assets at fair value not held for trading	8	66,826	59,796
Total financial assets measured at fair value through profit or loss		319,859	335,347
Financial assets measured at fair value through other comprehensive income	8	2,241	2,239
Investments in associates		1,114	1,101
Property, equipment and software		12,249	12,288
Goodwill and intangible assets		6,272	6,267
Deferred tax assets		9,310	9,389
Other non-financial assets	10	10,958	10,166
Total assets		1,053,134	1,104,364
Liabilities			
Amounts due to banks		13,595	11,596
Payables from securities financing transactions measured at amortized cost		9,870	4,202
Cash collateral payables on derivative instruments	9	32,238	36,436
Customer deposits		505,581	525,051
Debt issued measured at amortized cost	12	116,312	114,621
Other financial liabilities measured at amortized cost	10	10,292	9,575
Total financial liabilities measured at amortized cost		687,889	701,481
Financial liabilities at fair value held for trading	8	34,374	29,515
Derivative financial instruments	8, 9	116,113	154,906
Brokerage payables designated at fair value	8	43,911	45,085
Debt issued designated at fair value	8, 11	77,233	73,638
Other financial liabilities designated at fair value	8, 10	25,758	30,237
Total financial liabilities measured at fair value through profit or loss		297,390	333,381
Provisions	13	3,937	3,243
Other non-financial liabilities	10	6,811	9,040
Total liabilities		996,028	1,047,146
Equity			
Share capital		304	304
Share premium		12,971	13,546
Treasury shares		(8,242)	(6,874)
Retained earnings		51,140	50,004
Other comprehensive income recognized directly in equity, net of tax		581	(103)
Equity attributable to shareholders		56,754	56,876
Equity attributable to non-controlling interests		352	342
Total equity		57,106	57,218
Total liabilities and equity		1,053,134	1,104,364

Statement of changes in equity

<i>USD m</i>	Share capital and share premium	Treasury shares	Retained earnings	OCI recognized directly in equity, net of tax ¹	<i>of which: foreign currency translation</i>	<i>of which: cash flow hedges</i>	Total equity attributable to shareholders
Balance as of 1 January 2023²	13,850	(6,874)	50,004	(103)	4,128	(4,234)	56,876
Acquisition of treasury shares		(2,270) ³					(2,270)
Delivery of treasury shares under share-based compensation plans	(798)	845					47
Other disposal of treasury shares	(4)	57 ³					53
Share-based compensation expensed in the income statement	199						199
Tax (expense) / benefit	7						7
Equity classified as obligation to purchase own shares	22						22
Translation effects recognized directly in retained earnings			24	(24)		(24)	0
Share of changes in retained earnings of associates and joint ventures			0				0
New consolidations / (deconsolidations) and other increases / (decreases)	0						0
Total comprehensive income for the period			1,111	709	106	606	1,820
<i>of which: net profit / (loss)</i>			<i>1,029</i>				<i>1,029</i>
<i>of which: OCI, net of tax</i>			<i>83</i>	<i>709</i>	<i>106</i>	<i>606</i>	<i>791</i>
Balance as of 31 March 2023²	13,275	(8,242)	51,140	581	4,234	(3,652)	56,754
Non-controlling interests as of 31 March 2023							352
Total equity as of 31 March 2023							57,106
Balance as of 1 January 2022²	16,250	(4,675)	43,851	5,236	4,653	628	60,662
Acquisition of treasury shares		(1,960) ³					(1,960)
Delivery of treasury shares under share-based compensation plans	(735)	777					42
Other disposal of treasury shares	2	48 ³					50
Share-based compensation expensed in the income statement	193						193
Tax (expense) / benefit	2						2
Equity classified as obligation to purchase own shares	(41)						(41)
Translation effects recognized directly in retained earnings			1	(1)		(1)	0
Share of changes in retained earnings of associates and joint ventures			0				0
New consolidations / (deconsolidations) and other increases / (decreases)	5						5
Total comprehensive income for the period			2,599	(2,697)	(263)	(2,184)	(98)
<i>of which: net profit / (loss)</i>			<i>2,136</i>				<i>2,136</i>
<i>of which: OCI, net of tax</i>			<i>463</i>	<i>(2,697)</i>	<i>(263)</i>	<i>(2,184)</i>	<i>(2,234)</i>
Balance as of 31 March 2022²	15,677	(5,811)	46,451	2,538	4,390	(1,556)	58,855
Non-controlling interests as of 31 March 2022							356
Total equity as of 31 March 2022							59,212

1 Excludes other comprehensive income related to defined benefit plans and own credit that is recorded directly in Retained earnings. 2 Excludes non-controlling interests. 3 Includes treasury shares acquired and disposed of by the Investment Bank in its capacity as a market maker with regard to UBS shares and related derivatives, and to hedge certain issued structured debt instruments. These acquisitions and disposals are reported based on the sum of the net monthly movements.

Statement of cash flows

	Year-to-date	
USD m	31.3.23	31.3.22
Cash flow from / (used in) operating activities		
Net profit / (loss)	1,037	2,144
Non-cash items included in net profit and other adjustments:		
Depreciation, amortization and impairment of non-financial assets	525	506
Credit loss expense / (release)	38	18
Share of net profits of associates and joint ventures and impairment related to associates	(10)	4
Deferred tax expense / (benefit)	(28)	221
Net loss / (gain) from investing activities	(87)	19
Net loss / (gain) from financing activities	3,442	(4,597)
Other net adjustments	(816)	1,925
Net change in operating assets and liabilities:		
Loans and advances to banks and amounts due to banks	1,855	3,869
Securities financing transactions measured at amortized cost	13,493	7,011
Cash collateral on derivative instruments	(1,891)	(955)
Loans and advances to customers and customer deposits	(22,709)	5,927
Financial assets and liabilities at fair value held for trading and derivative financial instruments	(6,125)	8,215
Brokerage receivables and payables	(4,618)	5,081
Financial assets at fair value not held for trading and other financial assets and liabilities	(7,182)	252
Provisions and other non-financial assets and liabilities	(1,483)	(1,691)
Income taxes paid, net of refunds	(545)	(670)
Net cash flow from / (used in) operating activities	(25,106)	27,279
Cash flow from / (used in) investing activities		
Purchase of property, equipment and software	(375)	(402)
Purchase of financial assets measured at fair value through other comprehensive income	(1,092)	(1,645)
Disposal and redemption of financial assets measured at fair value through other comprehensive income	1,102	1,092
Net (purchase) / redemption of debt securities measured at amortized cost	(2,030)	(2,547)
Net cash flow from / (used in) investing activities	(2,396)	(3,502)
Cash flow from / (used in) financing activities		
Net short-term debt issued / (repaid)	(2,429)	(5,188)
Net movements in treasury shares and own equity derivative activity	(2,191)	(1,886)
Issuance of debt designated at fair value and long-term debt measured at amortized cost	26,811	24,381
Repayment of debt designated at fair value and long-term debt measured at amortized cost	(23,193)	(21,201)
Net cash flows from other financing activities	(126)	(224)
Net cash flow from / (used in) financing activities	(1,128)	(4,119)
Total cash flow		
Cash and cash equivalents at the beginning of the period	195,321	207,875
Net cash flow from / (used in) operating, investing and financing activities	(28,629)	19,658
Effects of exchange rate differences on cash and cash equivalents	747	(2,731)
Cash and cash equivalents at the end of the period¹	167,439	224,802
<i>of which: cash and balances at central banks²</i>	<i>144,099</i>	<i>206,666</i>
<i>of which: loans and advances to banks</i>	<i>13,439</i>	<i>16,618</i>
<i>of which: money market paper³</i>	<i>9,901</i>	<i>1,518</i>
Additional information		
Net cash flow from / (used in) operating activities includes:		
Interest received in cash	7,047	2,887
Interest paid in cash	5,859	1,387
Dividends on equity investments, investment funds and associates received in cash ⁴	525	456

¹ USD 4,137m and USD 4,359m of cash and cash equivalents (mainly reflected in Loans and advances to banks) were restricted as of 31 March 2023 and 31 March 2022, respectively. Refer to "Note 22 Restricted and transferred financial assets" in the "Consolidated financial statements" section of the Annual Report 2022 for more information. ² Includes only balances with an original maturity of three months or less. ³ Money market paper is included in the balance sheet under Financial assets at fair value not held for trading (31 March 2023: USD 9,644m; 31 March 2022: USD 1,202m), Other financial assets measured at amortized cost (31 March 2023: USD 218m; 31 March 2022: USD 138m), Financial assets at fair value held for trading (31 March 2023: USD 39m; 31 March 2022: USD 63m), and Financial assets measured at fair value through other comprehensive income (31 March 2023: USD 0m; 31 March 2022: USD 115m). ⁴ Includes dividends received from associates reported within Net cash flow from / (used in) investing activities.

Notes to the UBS Group AG interim consolidated financial statements (unaudited)

Note 1 Basis of accounting

Basis of preparation

The consolidated financial statements (the financial statements) of UBS Group AG and its subsidiaries (together, “UBS” or the “Group”) are prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board, and are presented in US dollars. These interim financial statements are prepared in accordance with IAS 34, *Interim Financial Reporting*.

In preparing these interim financial statements, the same accounting policies and methods of computation have been applied as in the UBS Group AG consolidated annual financial statements for the period ended 31 December 2022, except for the changes described in this Note. These interim financial statements are unaudited and should be read in conjunction with UBS Group AG’s audited consolidated financial statements in the Annual Report 2022 and the “Management report” sections of this report, including the disclosures in the “Acquisition of Credit Suisse” section of this report regarding the anticipated acquisition of Credit Suisse. In the opinion of management, all necessary adjustments have been made for a fair presentation of the Group’s financial position, results of operations and cash flows.

Preparation of these interim financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, income, expenses and disclosures of contingent assets and liabilities. These estimates and assumptions are based on the best available information. Actual results in the future could differ from such estimates and differences may be material to the financial statements. Revisions to estimates, based on regular reviews, are recognized in the period in which they occur. For more information about areas of estimation uncertainty that are considered to require critical judgment, refer to “Note 1a Material accounting policies” in the “Consolidated financial statements” section of the Annual Report 2022.

IFRS 17, Insurance Contracts

Effective from 1 January 2023, UBS has adopted IFRS 17, *Insurance Contracts*, which sets out the accounting requirements for contractual rights and obligations that arise from insurance contracts issued and reinsurance contracts held. The adoption has had no effect on the Group’s financial statements. UBS does not provide insurance services in any market.

Other amendments to IFRS

Effective from 1 January 2023, UBS has adopted a number of minor amendments to IFRS, which have had no significant effect on the Group.

Currency translation rates

The following table shows the rates of the main currencies used to translate the financial information of UBS’s operations with a functional currency other than the US dollar into US dollars.

	Closing exchange rate			Average rate ¹		
	As of			For the quarter ended		
	31.3.23	31.12.22	31.3.22	31.3.23	31.12.22	31.3.22
1 CHF	1.09	1.08	1.08	1.08	1.05	1.08
1 EUR	1.08	1.07	1.11	1.08	1.04	1.12
1 GBP	1.23	1.21	1.31	1.22	1.19	1.33
100 JPY	0.75	0.76	0.82	0.75	0.73	0.85

¹ Monthly income statement items of operations with a functional currency other than the US dollar are translated into US dollars using month-end rates. Disclosed average rates for a quarter represent an average of three month-end rates, weighted according to the income and expense volumes of all operations of the Group with the same functional currency for each month. Weighted average rates for individual business divisions may deviate from the weighted average rates for the Group.

Note 2 Segment reporting

<i>USD m</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	UBS
For the quarter ended 31 March 2023¹						
Net interest income	1,491	705	(8)	(501)	(300)	1,388
Non-interest income	3,301	573	510	2,850	123	7,356
Total revenues	4,792	1,278	502	2,349	(177)	8,744
Credit loss expense / (release)	15	16	0	7	0	38
Operating expenses	3,561	663	408	1,866	712	7,210
Operating profit / (loss) before tax	1,215	599	94	477	(890)	1,495
Tax expense / (benefit)						459
Net profit / (loss)						1,037
As of 31 March 2023¹						
Total assets	376,643	238,001	18,491	361,921	58,077	1,053,134
For the quarter ended 31 March 2022¹						
Net interest income	1,141	535	(4)	133	(34)	1,771
Non-interest income	3,763	552	582	2,775	(61)	7,611
Total revenues	4,904	1,086	578	2,908	(95)	9,382
Credit loss expense / (release)	(7)	23	0	4	0	18
Operating expenses	3,602	635	404	1,976	18	6,634
Operating profit / (loss) before tax	1,310	428	174	929	(112)	2,729
Tax expense / (benefit)						585
Net profit / (loss)						2,144
As of 31 December 2022¹						
Total assets	388,530	235,226	17,348	391,320	71,940	1,104,364

¹ Refer to "Note 2 Segment reporting" in the "Consolidated financial statements" section of the Annual Report 2022 for more information about the Group's reporting segments.

Note 3 Net interest income

<i>USD m</i>	For the quarter ended		
	31.3.23	31.12.22	31.3.22
Interest income from loans and deposits ¹	4,106	3,546	1,660
Interest income from securities financing transactions measured at amortized cost ²	766	636	118
Interest income from other financial instruments measured at amortized cost	259	207	72
Interest income from debt instruments measured at fair value through other comprehensive income	23	14	41
Interest income from derivative instruments designated as cash flow hedges	(376)	(223)	253
Total interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	4,777	4,180	2,144
Interest expense on loans and deposits ³	1,994	1,481	139
Interest expense on securities financing transactions measured at amortized cost ⁴	365	295	224
Interest expense on debt issued	1,429	1,154	396
Interest expense on lease liabilities	26	25	23
Total interest expense from financial instruments measured at amortized cost	3,814	2,954	781
Total net interest income from financial instruments measured at amortized cost and fair value through other comprehensive income	962	1,226	1,363
Net interest income from financial instruments measured at fair value through profit or loss and other	425	363	408
Total net interest income	1,388	1,589	1,771

¹ Consists of interest income from cash and balances at central banks, loans and advances to banks and customers, and cash collateral receivables on derivative instruments, as well as negative interest on amounts due to banks, customer deposits and cash collateral payables on derivative instruments. ² Includes interest income on receivables from securities financing transactions and negative interest, including fees, on payables from securities financing transactions. ³ Consists of interest expense on amounts due to banks, cash collateral payables on derivative instruments, and customer deposits, as well as negative interest on cash and balances at central banks, loans and advances to banks, and cash collateral receivables on derivative instruments. ⁴ Includes interest expense on payables from securities financing transactions and negative interest, including fees, on receivables from securities financing transactions.

Note 4 Net fee and commission income

USD m	For the quarter ended		
	31.3.23	31.12.22	31.3.22
Underwriting fees	127	121	172
M&A and corporate finance fees	178	196	237
Brokerage fees	880	759	1,077
Investment fund fees	1,178	1,148	1,388
Portfolio management and related services	2,210	2,121	2,463
Other	479	427	501
Total fee and commission income¹	5,053	4,771	5,837
of which: recurring	3,413	3,324	3,860
of which: transaction-based	1,616	1,423	1,958
of which: performance-based	24	24	19
Fee and commission expense	447	413	484
Net fee and commission income	4,606	4,359	5,353

¹ Reflects third-party fee and commission income for the first quarter of 2023 of USD 3,145m for Global Wealth Management (fourth quarter of 2022: USD 2,965m; first quarter of 2022: USD 3,637m), USD 449m for Personal & Corporate Banking (fourth quarter of 2022: USD 389m; first quarter of 2022: USD 446m), USD 687m for Asset Management (fourth quarter of 2022: USD 676m; first quarter of 2022: USD 762m), USD 770m for the Investment Bank (fourth quarter of 2022: USD 738m; first quarter of 2022: USD 988m) and USD 3m for Group Functions (fourth quarter of 2022: USD 3m; first quarter of 2022: USD 4m).

Note 5 Personnel expenses

USD m	For the quarter ended		
	31.3.23	31.12.22	31.3.22
Salaries and variable compensation ¹	3,885	3,478	4,169
of which: variable compensation – financial advisors ²	1,111	1,073	1,220
Contractors	70	80	83
Social security	279	210	285
Post-employment benefit plans	236	169	249
Other personnel expenses	151	185	135
Total personnel expenses	4,620	4,122	4,920

¹ Includes role-based allowances. ² Consists of cash and deferred compensation awards and is based on compensable revenues and firm tenure using a formulaic approach. It also includes expenses related to compensation commitments with financial advisors entered into at the time of recruitment that are subject to vesting requirements.

Note 6 General and administrative expenses

USD m	For the quarter ended		
	31.3.23	31.12.22	31.3.22
Outsourcing costs	248	225	227
Technology costs	322	294	289
Consulting, legal and audit fees	181	179	129
Real estate and logistics costs	142	165	147
Market data services	113	108	106
Marketing and communication	52	100	40
Travel and entertainment	54	62	20
Litigation, regulatory and similar matters ¹	721	50	57
Other	232	236	192
Total general and administrative expenses	2,065	1,420	1,208

¹ Reflects the net increase in provisions for litigation, regulatory and similar matters recognized in the income statement. Refer to Note 13b for more information.

Note 7 Expected credit loss measurement

a) Credit loss expense / release

Total net credit loss expenses in the first quarter of 2023 were USD 38m, reflecting USD 26m net credit loss expenses related to stage 1 and 2 positions and USD 12m net credit loss expenses related to stage 3 positions, primarily in the Investment Bank.

Stage 1 and 2 net expenses of USD 26m included scenario-update-related expenses of USD 21m, primarily for real estate lending due to less optimistic house price forecasts and, to a lesser extent, lending to SME clients due to rising interest rates.



Note 7 Expected credit loss measurement (continued)

b) Changes to ECL models, scenarios, scenario weights and post-model adjustments

Scenarios and scenario weights

The expected credit loss (ECL) scenarios, along with their related macroeconomic factors and market data, were reviewed in light of the economic and political conditions prevailing in the first quarter of 2023 through a series of governance meetings, with input and feedback from UBS Risk and Finance experts across the business divisions and regions. UBS decided to apply the same scenarios (baseline, stagflationary geopolitical crisis, global crisis, asset price inflation) and weights in the first quarter of 2023 as in the fourth quarter of 2022. Refer to the table below for scenarios and weights applied.

The baseline scenario was updated with the latest macroeconomic data as of 31 March 2023. The assumptions on a calendar-year basis are included in the table below and imply a weaker economic forecast for 2023, mainly in the US, and less optimistic house price forecasts in the US and Switzerland, compared with 31 December 2022.

The global crisis scenario, the stagflationary geopolitical crisis scenario and the asset price inflation scenario were updated with current macroeconomic factors, resulting overall in modest allowances increases in real estate lending.

Post-model adjustments

Total stage 1 and 2 allowances and provisions amounted to USD 555m as of 31 March 2023 and included post-model adjustments (PMA) of USD 128m (31 December 2022: USD 131m).

The PMA represent uncertainty and risk, heightened geopolitical tensions, stagflation, and recession risk, as well as the recent volatility in the banking system, which cannot be fully and reliably modeled.

Comparison of shock factors

Key parameters	Baseline		
	2022	2023	2024
Real GDP growth (annual percentage change)			
US	2.0	0.6	0.3
Eurozone	3.5	0.8	1.0
Switzerland	2.0	0.7	1.0
Unemployment rate (% annual average)			
US	3.7	3.8	5.1
Eurozone	6.7	6.7	6.9
Switzerland	2.2	2.2	2.5
Fixed income: 10-year government bonds (% Q4)			
USD	3.9	3.4	3.3
EUR	2.6	2.2	2.2
CHF	1.6	1.3	1.4
Real estate (annual percentage change, Q4)			
US	6.4	(2.3)	2.0
Eurozone	3.4	(2.0)	2.8
Switzerland	3.6	1.5	0.0

Economic scenarios and weights applied

ECL scenario	Assigned weights in %		
	31.3.23	31.12.22	31.3.22
Asset price inflation	0.0	0.0	0.0
Baseline	60.0	60.0	55.0
Severe global interest rate steepening	–	–	25.0
Stagflationary geopolitical crisis	25.0	25.0	–
Global crisis	15.0	15.0	20.0

Note 7 Expected credit loss measurement (continued)

e) ECL-relevant balance sheet and off-balance sheet positions including ECL allowances and provisions

The following tables provide information about financial instruments and certain non-financial instruments that are subject to ECL requirements. For amortized-cost instruments, the carrying amount represents the maximum exposure to credit risk, taking into account the allowance for credit losses. Financial assets measured at fair value through other comprehensive income (FVOCI) are also subject to ECL; however, unlike amortized-cost instruments, the allowance for credit losses for FVOCI instruments does not reduce the carrying amount of these financial assets. Instead, the carrying amount of financial assets measured at FVOCI represents the maximum exposure to credit risk.

In addition to recognized financial assets, certain off-balance sheet financial instruments and other credit lines are also subject to ECL. The maximum exposure to credit risk for off-balance sheet financial instruments is calculated based on the maximum contractual amounts.

USD m	31.3.23							
	Carrying amount ¹				ECL allowances			
Financial instruments measured at amortized cost	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3
Cash and balances at central banks	144,183	144,144	39	0	(12)	0	(12)	0
Loans and advances to banks	14,901	14,857	45	0	(6)	(5)	0	0
Receivables from securities financing transactions measured at amortized cost	60,010	60,010	0	0	(2)	(2)	0	0
Cash collateral receivables on derivative instruments	32,726	32,726	0	0	0	0	0	0
Loans and advances to customers	390,130	371,966	16,573	1,591	(804)	(152)	(180)	(472)
of which: Private clients with mortgages	159,409	149,701	8,999	709	(171)	(43)	(103)	(25)
of which: Real estate financing	48,672	45,159	3,504	8	(42)	(18)	(24)	0
of which: Large corporate clients	12,943	11,216	1,408	320	(139)	(20)	(16)	(102)
of which: SME clients	13,610	11,781	1,437	392	(243)	(29)	(25)	(189)
of which: Lombard	128,960	128,903	0	57	(26)	(9)	0	(17)
of which: Credit cards	1,831	1,418	381	32	(37)	(8)	(10)	(20)
of which: Commodity trade finance	3,053	3,022	20	10	(96)	(5)	0	(91)
Other financial assets measured at amortized cost	49,179	48,661	372	146	(84)	(17)	(6)	(61)
of which: Loans to financial advisors	2,571	2,323	121	127	(54)	(6)	(2)	(46)
Total financial assets measured at amortized cost	691,130	672,365	17,028	1,737	(908)	(176)	(198)	(534)
Financial assets measured at fair value through other comprehensive income	2,241	2,241	0	0	0	0	0	0
Total on-balance sheet financial assets in scope of ECL requirements	693,370	674,606	17,028	1,737	(908)	(176)	(198)	(534)
		Total exposure			ECL provisions			
Off-balance sheet (within the scope of ECL)	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3
Guarantees	22,670	21,670	887	113	(54)	(13)	(8)	(33)
of which: Large corporate clients	3,476	2,733	668	75	(19)	(2)	(3)	(14)
of which: SME clients	1,368	1,197	133	38	(11)	(1)	(1)	(9)
of which: Financial intermediaries and hedge funds	13,076	13,037	38	0	(11)	(8)	(4)	0
of which: Lombard	2,171	2,170	0	1	(1)	0	0	(1)
of which: Commodity trade finance	1,815	1,815	0	0	(1)	(1)	0	0
Irrevocable loan commitments	39,775	37,261	2,400	114	(113)	(57)	(56)	0
of which: Large corporate clients	23,294	21,263	1,948	83	(95)	(47)	(49)	0
Forward starting reverse repurchase and securities borrowing agreements	4,748	4,748	0	0	0	0	0	0
Committed unconditionally revocable credit lines	41,071	39,307	1,724	40	(44)	(36)	(8)	0
of which: Real estate financing	8,226	8,037	188	0	(6)	(6)	0	0
of which: Large corporate clients	4,496	4,284	205	7	(5)	(3)	(2)	0
of which: SME clients	4,898	4,656	214	28	(21)	(18)	(3)	0
of which: Lombard	8,166	8,165	0	1	0	0	0	0
of which: Credit cards	9,567	9,078	486	3	(7)	(5)	(2)	0
of which: Commodity trade finance	370	370	0	0	0	0	0	0
Irrevocable committed prolongation of existing loans	4,161	4,126	33	2	(3)	(3)	0	0
Total off-balance sheet financial instruments and credit lines	112,425	107,112	5,044	269	(214)	(108)	(72)	(33)
Total allowances and provisions					(1,121)	(284)	(271)	(567)

¹ The carrying amount of financial assets measured at amortized cost represents the total gross exposure net of the respective ECL allowances.

Note 7 Expected credit loss measurement (continued)

USD m		31.12.22						
	Carrying amount ¹				ECL allowances			
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3
Financial instruments measured at amortized cost								
Cash and balances at central banks	169,445	169,402	44	0	(12)	0	(12)	0
Loans and advances to banks	14,792	14,792	1	0	(6)	(5)	(1)	0
Receivables from securities financing transactions measured at amortized cost	67,814	67,814	0	0	(2)	(2)	0	0
Cash collateral receivables on derivative instruments	35,032	35,032	0	0	0	0	0	0
Loans and advances to customers	387,220	370,095	15,587	1,538	(783)	(129)	(180)	(474)
<i>of which: Private clients with mortgages</i>	156,930	147,651	8,579	699	(161)	(27)	(107)	(28)
<i>of which: Real estate financing</i>	46,470	43,112	3,349	9	(41)	(17)	(23)	0
<i>of which: Large corporate clients</i>	12,226	10,733	1,189	303	(130)	(24)	(14)	(92)
<i>of which: SME clients</i>	13,903	12,211	1,342	351	(251)	(26)	(22)	(203)
<i>of which: Lombard</i>	132,287	132,196	0	91	(26)	(9)	0	(17)
<i>of which: Credit cards</i>	1,834	1,420	382	31	(36)	(7)	(10)	(19)
<i>of which: Commodity trade finance</i>	3,272	3,261	0	11	(96)	(6)	0	(90)
Other financial assets measured at amortized cost ²	53,264	52,704	413	147	(86)	(17)	(6)	(63)
<i>of which: Loans to financial advisors</i>	2,611	2,357	128	126	(59)	(7)	(2)	(51)
Total financial assets measured at amortized cost	727,568	709,839	16,044	1,685	(889)	(154)	(199)	(537)
Financial assets measured at fair value through other comprehensive income²	2,239	2,239	0	0	0	0	0	0
Total on-balance sheet financial assets in scope of ECL requirements	729,807	712,078	16,044	1,685	(889)	(154)	(199)	(537)
		Total exposure				ECL provisions		
Off-balance sheet (within the scope of ECL)	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3
Guarantees	22,167	19,805	2,254	108	(48)	(13)	(9)	(26)
<i>of which: Large corporate clients</i>	3,663	2,883	721	58	(26)	(2)	(3)	(21)
<i>of which: SME clients</i>	1,337	1,124	164	49	(5)	(1)	(1)	(3)
<i>of which: Financial intermediaries and hedge funds</i>	11,833	10,513	1,320	0	(12)	(8)	(4)	0
<i>of which: Lombard</i>	2,376	2,376	0	1	(1)	0	0	(1)
<i>of which: Commodity trade finance</i>	2,121	2,121	0	0	(1)	(1)	0	0
Irrevocable loan commitments	39,996	37,531	2,341	124	(111)	(59)	(52)	0
<i>of which: Large corporate clients</i>	23,611	21,488	2,024	99	(93)	(49)	(45)	0
Forward starting reverse repurchase and securities borrowing agreements	3,801	3,801	0	0	0	0	0	0
Committed unconditionally revocable credit lines	41,390	39,521	1,833	36	(40)	(32)	(8)	0
<i>of which: Real estate financing</i>	8,711	8,528	183	0	(6)	(6)	0	0
<i>of which: Large corporate clients</i>	4,578	4,304	268	5	(4)	(1)	(2)	0
<i>of which: SME clients</i>	4,723	4,442	256	26	(19)	(16)	(3)	0
<i>of which: Lombard</i>	7,855	7,854	0	1	0	0	0	0
<i>of which: Credit cards</i>	9,390	8,900	487	3	(7)	(5)	(2)	0
<i>of which: Commodity trade finance</i>	327	327	0	0	0	0	0	0
Irrevocable committed prolongation of existing loans	4,696	4,600	94	2	(2)	(2)	0	0
Total off-balance sheet financial instruments and credit lines	112,050	105,258	6,522	270	(201)	(106)	(69)	(26)
Total allowances and provisions					(1,091)	(259)	(267)	(564)

¹ The carrying amount of financial assets measured at amortized cost represents the total gross exposure net of the respective ECL allowances. ² Effective 1 April 2022, a portfolio of assets previously classified as Financial assets measured at fair value through other comprehensive income was reclassified to Other financial assets measured at amortized cost. Refer to Note 10a for more information.

Note 7 Expected credit loss measurement (continued)

The table below provides information about the ECL gross exposure and the ECL coverage ratio for UBS's core loan portfolios (i.e., *Loans and advances to customers* and *Loans to financial advisors*) and relevant off-balance sheet exposures. *Cash and balances at central banks, Loans and advances to banks, Receivables from securities financing transactions, Cash collateral receivables on derivative instruments* and *Financial assets measured at fair value through other comprehensive income* are not included in the table below, due to their lower sensitivity to ECL.

ECL coverage ratios are calculated by dividing ECL allowances and provisions by the gross carrying amount of the related exposures.

Coverage ratios for core loan portfolio					31.3.23				
On-balance sheet	Gross carrying amount (USD m)				ECL coverage (bps)				
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3
Private clients with mortgages	159,580	149,744	9,102	734	11	3	113	9	344
Real estate financing	48,714	45,177	3,529	8	9	4	69	9	22
Total real estate lending	208,294	194,921	12,631	742	10	3	101	9	341
Large corporate clients	13,082	11,236	1,424	422	106	18	115	29	2,424
SME clients	13,853	11,811	1,461	581	175	25	168	41	3,253
Total corporate lending	26,936	23,047	2,886	1,003	142	22	142	35	2,904
Lombard	128,985	128,912	0	74	2	1	0	1	2,286
Credit cards	1,868	1,426	391	52	201	56	255	99	3,793
Commodity trade finance	3,149	3,028	20	101	305	18	11	17	9,001
Other loans and advances to customers	21,702	20,785	825	92	23	9	24	10	3,117
Loans to financial advisors	2,626	2,329	123	174	206	26	145	32	2,659
Total other lending	158,330	156,479	1,360	492	17	3	101	4	4,109
Total¹	393,560	374,447	16,876	2,237	22	4	108	9	2,319

Off-balance sheet	Gross exposure (USD m)				ECL coverage (bps)				
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3
Private clients with mortgages	6,377	6,163	212	3	6	5	28	6	340
Real estate financing	9,298	9,101	197	0	7	8	0	7	0
Total real estate lending	15,675	15,263	409	3	6	7	0	6	340
Large corporate clients	31,375	28,390	2,821	165	38	18	190	34	830
SME clients	7,674	7,124	470	80	55	30	245	44	1,114
Total corporate lending	39,049	35,514	3,290	245	41	21	198	36	923
Lombard	12,456	12,455	0	1	1	1	0	1	0
Credit cards	9,567	9,078	486	3	8	6	36	8	0
Commodity trade finance	2,187	2,187	0	0	4	4	0	4	0
Financial intermediaries and hedge funds	17,260	16,781	479	0	8	5	80	8	0
Other off-balance sheet commitments	11,483	11,086	380	17	18	7	66	9	0
Total other lending	52,953	51,587	1,345	22	8	5	60	6	0
Total²	107,677	102,364	5,044	269	20	11	143	17	1,232
Total on- and off-balance sheet³	501,237	476,811	21,920	2,506	21	6	116	10	2,202

¹ Includes Loans and advances to customers and Loans to financial advisors which are presented on the balance sheet line Other financial assets measured at amortized cost. ² Excludes Forward starting reverse repurchase and securities borrowing agreements. ³ Includes on-balance-sheet exposure, gross and off-balance-sheet exposure (notional) and the related ECL coverage ratio (bps).

Note 7 Expected credit loss measurement (continued)

Coverage ratios for core loan portfolio					31.12.22				
On-balance sheet	Gross carrying amount (USD m)				ECL coverage (bps)				
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3
Private clients with mortgages	157,091	147,678	8,686	727	10	2	123	9	381
Real estate financing	46,511	43,129	3,372	9	9	4	70	9	232
Total real estate lending	203,602	190,807	12,059	736	10	2	108	9	379
Large corporate clients	12,356	10,757	1,204	395	105	22	120	32	2,325
SME clients	14,154	12,237	1,364	553	177	22	161	36	3,664
Total corporate lending	26,510	22,994	2,567	949	144	22	142	34	3,106
Lombard	132,313	132,205	0	108	2	1	0	1	1,580
Credit cards	1,869	1,427	393	50	190	46	256	91	3,779
Commodity trade finance	3,367	3,266	0	101	285	18	0	18	8,901
Other loans and advances to customers	20,342	19,525	748	68	21	7	38	8	3,769
Loans to financial advisors	2,670	2,364	130	176	221	28	124	33	2,870
Total other lending	160,561	158,787	1,270	503	16	3	114	4	4,016
Total¹	390,672	372,588	15,896	2,188	22	4	114	8	2,398
Off-balance sheet	Gross exposure (USD m)				ECL coverage (bps)				
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 1&2	Stage 3
Private clients with mortgages	6,535	6,296	236	3	5	4	18	4	1,183
Real estate financing	10,054	9,779	275	0	6	7	0	6	0
Total real estate lending	16,589	16,075	511	3	6	6	2	6	1,288
Large corporate clients	32,126	28,950	3,013	163	38	18	165	32	1,263
SME clients	7,122	6,525	499	98	47	30	214	43	304
Total corporate lending	39,247	35,475	3,513	260	40	20	172	34	903
Lombard	12,919	12,918	0	1	2	1	0	1	0
Credit cards	9,390	8,900	487	3	7	5	36	7	0
Commodity trade finance	2,459	2,459	0	0	3	3	0	3	0
Financial intermediaries and hedge funds	15,841	14,177	1,664	0	9	7	25	9	0
Other off-balance sheet commitments	11,803	11,454	346	3	11	8	68	9	0
Total other lending	52,412	49,907	2,498	7	7	5	33	6	0
Total²	108,249	101,457	6,522	270	19	10	106	16	980
Total on- and off-balance sheet³	498,921	474,045	22,418	2,458	21	5	112	10	2,242

¹ Includes Loans and advances to customers and Loans to financial advisors which are presented on the balance sheet line Other financial assets measured at amortized cost. ² Excludes Forward starting reverse repurchase and securities borrowing agreements. ³ Includes on-balance-sheet exposure, gross and off-balance-sheet exposure (notional) and the related ECL coverage ratio (bps).

Note 8 Fair value measurement

a) Fair value hierarchy

The fair value hierarchy classification of financial and non-financial assets and liabilities measured at fair value is summarized in the table below.

During the first three months of 2023, assets and liabilities that were transferred from Level 2 to Level 1, or from Level 1 to Level 2, and were held for the entire reporting period were not material.

Determination of fair values from quoted market prices or valuation techniques¹

USD m	31.3.23				31.12.22			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value on a recurring basis								
Financial assets at fair value held for trading	104,793	11,865	1,099	117,757	96,241	10,138	1,488	107,866
of which: Equity instruments	87,723	295	177	88,194	83,074	789	126	83,988
of which: Government bills / bonds	8,902	1,534	23	10,460	5,496	950	18	6,464
of which: Investment fund units	7,187	536	10	7,733	6,673	596	61	7,330
of which: Corporate and municipal bonds	977	7,449	442	8,867	976	6,363	541	7,880
of which: Loans	0	1,812	329	2,141	0	1,179	628	1,807
of which: Asset-backed securities	4	239	118	360	22	261	114	397
Derivative financial instruments	879	112,064	1,309	114,251	769	147,875	1,464	150,108
of which: Foreign exchange	515	51,731	3	52,249	575	84,881	2	85,458
of which: Interest rate	0	36,339	398	36,737	0	39,345	460	39,805
of which: Equity / index	1	21,180	578	21,759	1	21,542	653	22,195
of which: Credit	0	944	309	1,253	0	719	318	1,038
of which: Commodities	0	1,780	20	1,800	0	1,334	30	1,365
Brokerage receivables	0	21,025	0	21,025	0	17,576	0	17,576
Financial assets at fair value not held for trading	32,279	30,713	3,834	66,826	26,572	29,498	3,725	59,796
of which: Financial assets for unit-linked investment contracts	14,004	97	0	14,101	13,071	1	0	13,072
of which: Corporate and municipal bonds	86	13,601	241	13,928	35	14,101	230	14,366
of which: Government bills / bonds	17,824	3,140	0	20,965	13,103	3,638	0	16,741
of which: Loans	0	3,706	810	4,516	0	3,602	736	4,337
of which: Securities financing transactions	0	9,670	108	9,779	0	7,590	114	7,704
of which: Auction rate securities	0	0	1,321	1,321	0	0	1,326	1,326
of which: Investment fund units	295	498	288	1,081	307	566	190	1,063
of which: Equity instruments	70	0	879	949	57	0	792	849
Financial assets measured at fair value through other comprehensive income on a recurring basis								
Financial assets measured at fair value through other comprehensive income	60	2,181	0	2,241	57	2,182	0	2,239
of which: Commercial paper and certificates of deposit	0	1,921	0	1,921	0	1,878	0	1,878
of which: Corporate and municipal bonds	60	233	0	293	57	278	0	335
Non-financial assets measured at fair value on a recurring basis								
Precious metals and other physical commodities	4,506	0	0	4,506	4,471	0	0	4,471
Non-financial assets measured at fair value on a non-recurring basis								
Other non-financial assets ²	0	0	109	109	0	0	110	110
Total assets measured at fair value	142,516	177,847	6,351	326,714	128,110	207,269	6,788	342,166

Note 8 Fair value measurement (continued)

Determination of fair values from quoted market prices or valuation techniques (continued) ¹									
USD m	31.3.23				31.12.22				
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total	
Financial liabilities measured at fair value on a recurring basis									
Financial liabilities at fair value held for trading	28,332	5,941	101	34,374	23,578	5,823	114	29,515	
of which: Equity instruments	19,411	370	58	19,839	16,521	352	78	16,951	
of which: Corporate and municipal bonds	33	4,610	38	4,681	36	4,643	27	4,707	
of which: Government bills / bonds	7,919	728	0	8,647	5,880	706	1	6,587	
of which: Investment fund units	969	204	3	1,176	1,141	84	3	1,229	
Derivative financial instruments	967	113,051	2,095	116,113	640	152,582	1,684	154,906	
of which: Foreign exchange	529	52,706	33	53,267	587	87,897	24	88,508	
of which: Interest rate	0	34,317	360	34,677	0	37,429	116	37,545	
of which: Equity / index	1	23,207	1,365	24,573	0	24,963	1,184	26,148	
of which: Credit	0	1,057	286	1,343	0	920	279	1,199	
of which: Commodities	0	1,592	33	1,625	0	1,309	52	1,361	
Financial liabilities designated at fair value on a recurring basis									
Brokerage payables designated at fair value	0	43,911	0	43,911	0	45,085	0	45,085	
Debt issued designated at fair value	0	66,748	10,485	77,233	0	63,111	10,527	73,638	
Other financial liabilities designated at fair value	0	25,180	579	25,758	0	29,547	691	30,237	
of which: Financial liabilities related to unit-linked investment contracts	0	14,243	0	14,243	0	13,221	0	13,221	
of which: Securities financing transactions	0	9,707	0	9,707	0	15,333	0	15,333	
of which: Over-the-counter debt instruments and others	0	1,230	579	1,809	0	993	691	1,684	
Total liabilities measured at fair value	29,299	254,831	13,260	297,390	24,219	296,148	13,015	333,381	

¹ Bifurcated embedded derivatives are presented on the same balance sheet lines as their host contracts and are not included in this table. The fair value of these derivatives was not material for any of the periods presented. ² Other non-financial assets primarily consist of properties and other non-current assets held for sale, which are measured at the lower of their net carrying amount or fair value less costs to sell.

b) Valuation adjustments

The table below summarizes the changes in deferred day-1 profit or loss reserves during the relevant period.

Deferred day-1 profit or loss is generally released into *Other net income from financial instruments measured at fair value through profit or loss* when the pricing of equivalent products or the underlying parameters become observable or when the transaction is closed out.

USD m	For the quarter ended		
	31.3.23	31.12.22	31.3.22
Reserve balance at the beginning of the period	422	426	418
Profit / (loss) deferred on new transactions	91	54	75
(Profit) / loss recognized in the income statement	(113)	(61)	(69)
Foreign currency translation	0	2	0
Reserve balance at the end of the period	399	422	425

The table below summarizes other valuation adjustment reserves recognized on the balance sheet.

USD m	As of	
	31.3.23	31.12.22
Own credit adjustments on financial liabilities designated at fair value	624	556
of which: debt issued designated at fair value	495	453
of which: other financial liabilities designated at fair value	129	103
Credit valuation adjustments¹	(33)	(33)
Funding valuation adjustments	(108)	(50)
Debit valuation adjustments	6	4
Other valuation adjustments	(801)	(839)
of which: liquidity	(299)	(311)
of which: model uncertainty	(502)	(529)

¹ Amount does not include reserves against defaulted counterparties.



Note 8 Fair value measurement (continued)

e) Level 3 instruments: valuation techniques and inputs

The table below presents material Level 3 assets and liabilities, together with the valuation techniques used to measure fair value, as well as the inputs used in a given valuation technique that are considered significant as of 31 March 2023 and unobservable, and a range of values for those unobservable inputs.

The range of values represents the highest- and lowest-level inputs used in the valuation techniques. Therefore, the range does not reflect the level of uncertainty regarding a particular input or an assessment of the reasonableness of the Group's estimates and assumptions, but rather the different underlying characteristics of the relevant assets and liabilities held by the Group.

The significant unobservable inputs disclosed in the table below are consistent with those included in "Note 20 Fair value measurement" in the "Consolidated financial statements" section of the Annual Report 2022.

Valuation techniques and inputs used in the fair value measurement of Level 3 assets and liabilities

USD bn	Fair value				Valuation technique(s)	Significant unobservable input(s) ¹	Range of inputs						unit ¹
	Assets		Liabilities				31.3.23			31.12.22			
	31.3.23	31.12.22	31.3.23	31.12.22			low	high	weighted average ²	low	high	weighted average ²	
Financial assets and liabilities at fair value held for trading and Financial assets at fair value not held for trading													
<i>Corporate and municipal bonds</i>	0.7	0.8	0.0	0.0	Relative value to market comparable	Bond price equivalent	1	102	85	14	112	85	points
					Discounted expected cash flows	Discount margin	437	437		412	412		basis points
<i>Traded loans, loans measured at fair value, loan commitments and guarantees</i>	1.3	1.7	0.0	0.0	Relative value to market comparable	Loan price equivalent	44	100	98	30	100	97	points
					Discounted expected cash flows	Credit spread	200	200	200	200	200	200	basis points
					Market comparable and securitization model	Credit spread	185	1,380	370	145	1,350	322	basis points
<i>Auction rate securities</i>	1.3	1.3			Discounted expected cash flows	Credit spread	115	202	149	115	196	144	basis points
<i>Investment fund units³</i>	0.3	0.3	0.0	0.0	Relative value to market comparable	Net asset value							
<i>Equity instruments³</i>	1.1	0.9	0.1	0.1	Relative value to market comparable	Price							
Debt issued designated at fair value⁴			10.5	10.5									
Other financial liabilities designated at fair value			0.6	0.7	Discounted expected cash flows	Funding spread	25	175		23	175		basis points
Derivative financial instruments													
<i>Interest rate</i>	0.4	0.5	0.4	0.1	Option model	Volatility of interest rates	69	128		75	143		basis points
<i>Credit</i>	0.3	0.3	0.3	0.3	Discounted expected cash flows	Credit spreads	11	565		9	565		basis points
<i>Equity / index</i>	0.6	0.7	1.4	1.2	Option model	Bond price equivalent	3	278		3	277		points
						Equity dividend yields	0	9		0	20		%
						Volatility of equity stocks, equity and other indices	4	131		4	120		%
						Equity-to-FX correlation	(40)	84		(29)	84		%
						Equity-to-equity correlation	(25)	100		(25)	100		%

¹ The ranges of significant unobservable inputs are represented in points, percentages and basis points. Points are a percentage of par (e.g., 100 points would be 100% of par). ² Weighted averages are provided for most non-derivative financial instruments and were calculated by weighting inputs based on the fair values of the respective instruments. Weighted averages are not provided for inputs related to Other financial liabilities designated at fair value and Derivative financial instruments, as this would not be meaningful. ³ The range of inputs is not disclosed, as there is a dispersion of values given the diverse nature of the investments. ⁴ Debt issued designated at fair value primarily consists of UBS structured notes, which include variable maturity notes with various equity and foreign exchange underlying risks, rates-linked and credit-linked notes, all of which have embedded derivative parameters that are considered to be unobservable. The equivalent derivative instrument parameters are presented in the respective derivative financial instruments lines in this table.

Note 8 Fair value measurement (continued)

d) Level 3 instruments: sensitivity to changes in unobservable input assumptions

The table below summarizes those financial assets and liabilities classified as Level 3 for which a change in one or more of the unobservable inputs to reflect reasonably possible alternative assumptions would change fair value significantly, and the estimated effect thereof.

The sensitivity data shown below presents an estimation of valuation uncertainty based on reasonably possible alternative values for Level 3 inputs at the balance sheet date and does not represent the estimated effect of stress scenarios. Typically, these financial assets and liabilities are sensitive to a combination of inputs from Levels 1–3. Although well-defined interdependencies may exist between Level 1 / 2 parameters and Level 3 parameters (e.g., between interest rates, which are generally Level 1 or Level 2, and prepayments, which are generally Level 3), these have not been incorporated in the table. Furthermore, direct interrelationships between the Level 3 parameters are not a significant element of the valuation uncertainty.

Sensitivity of fair value measurements to changes in unobservable input assumptions¹

USD m	31.3.23		31.12.22	
	Favorable changes	Unfavorable changes	Favorable changes	Unfavorable changes
Traded loans, loans measured at fair value, loan commitments and guarantees	12	(13)	19	(12)
Securities financing transactions	27	(29)	33	(37)
Auction rate securities	45	(45)	46	(46)
Asset-backed securities	29	(27)	27	(27)
Equity instruments	188	(164)	183	(161)
Interest rate derivatives, net	20	(13)	18	(12)
Credit derivatives, net	3	(5)	3	(4)
Foreign exchange derivatives, net	4	(5)	10	(5)
Equity / index derivatives, net	371	(338)	361	(330)
Other	93	(105)	39	(62)
Total	791	(744)	738	(696)

¹ Sensitivity of issued and over-the-counter debt instruments is reported with the equivalent derivative or Other.

e) Level 3 instruments: movements during the period

The table below presents additional information about material Level 3 assets and liabilities measured at fair value on a recurring basis. Level 3 assets and liabilities may be hedged with instruments classified as Level 1 or Level 2 in the fair value hierarchy and, as a result, realized and unrealized gains and losses included in the table may not include the effect of related hedging activity. Furthermore, the realized and unrealized gains and losses presented in the table are not limited solely to those arising from Level 3 inputs, as valuations are generally derived from both observable and unobservable parameters.

Assets and liabilities transferred into or out of Level 3 are presented as if those assets or liabilities had been transferred at the beginning of the year.

Note 8 Fair value measurement (continued)

Movements of Level 3 instruments											
USD bn	Balance at the beginning of the period	Net gains / losses included in comprehensive income ¹	of which: related to instruments held at the end of the period	Purchases	Sales	Issuances	Settlements	Transfers into Level 3	Transfers out of Level 3	Foreign currency translation	Balance at the end of the period
For the three months ended 31 March 2023²											
Financial assets at fair value held for trading											
	1.5	0.1	0.1	0.1	(0.6)	0.1	0.0	0.1	(0.1)	0.0	1.1
of which: Investment fund units	0.1	(0.0)	(0.0)	0.0	(0.0)	0.0	0.0	0.0	(0.0)	0.0	0.0
of which: Corporate and municipal bonds	0.5	0.0	0.0	0.1	(0.2)	0.0	0.0	0.0	(0.0)	0.0	0.4
of which: Loans	0.6	0.0	0.0	0.0	(0.4)	0.1	0.0	0.0	(0.0)	(0.0)	0.3
Derivative financial instruments – assets											
	1.5	(0.1)	(0.1)	0.0	0.0	0.2	(0.1)	0.0	(0.1)	0.0	1.3
of which: Interest rate	0.5	(0.0)	(0.0)	0.0	0.0	0.0	(0.0)	0.0	(0.1)	(0.0)	0.4
of which: Equity / index	0.7	(0.1)	(0.1)	0.0	0.0	0.1	(0.1)	0.0	(0.0)	0.0	0.6
of which: Credit	0.3	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0	(0.0)	0.0	0.3
Financial assets at fair value not held for trading											
	3.7	0.0	0.0	0.3	(0.2)	0.0	0.0	0.0	(0.0)	0.0	3.8
of which: Loans	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	(0.0)	(0.0)	0.8
of which: Auction rate securities	1.3	0.0	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0	0.0	1.3
of which: Equity instruments	0.8	0.0	0.0	0.1	(0.1)	0.0	0.0	0.0	0.0	0.0	0.9
Derivative financial instruments – liabilities											
	1.7	0.1	0.1	0.0	0.0	0.4	(0.2)	0.0	0.1	0.0	2.1
of which: Interest rate	0.1	(0.0)	(0.0)	0.0	0.0	0.1	(0.0)	0.0	0.2	(0.0)	0.4
of which: Equity / index	1.2	0.1	0.1	0.0	0.0	0.2	(0.1)	0.0	(0.0)	0.0	1.4
of which: Credit	0.3	(0.0)	(0.0)	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0	0.3
Debt issued designated at fair value											
	10.5	0.4	0.4	0.0	0.0	1.3	(1.3)	0.3	(0.7)	0.0	10.5
Other financial liabilities designated at fair value											
	0.7	0.0	0.0	0.0	0.0	0.1	(0.0)	0.0	(0.2)	(0.0)	0.6
For the three months ended 31 March 2022											
Financial assets at fair value held for trading											
	2.3	(0.0)	(0.0)	0.2	(0.8)	1.0	0.0	0.2	(0.3)	0.0	2.6
of which: Investment fund units	0.0	(0.0)	(0.0)	0.0	(0.0)	0.0	0.0	0.0	(0.0)	(0.0)	0.0
of which: Corporate and municipal bonds	0.6	0.0	0.0	0.1	(0.1)	0.0	0.0	0.0	(0.0)	(0.0)	0.6
of which: Loans	1.4	0.0	0.0	0.0	(0.7)	1.0	0.0	0.0	(0.2)	0.0	1.6
Derivative financial instruments – assets											
	1.1	0.5	0.5	0.0	0.0	0.4	(0.3)	0.0	(0.0)	(0.0)	1.7
of which: Interest rate	0.5	0.4	0.4	0.0	0.0	0.0	(0.1)	0.0	(0.0)	(0.0)	0.8
of which: Equity / index	0.4	0.1	0.0	0.0	0.0	0.2	(0.1)	0.0	(0.0)	(0.0)	0.4
of which: Credit	0.2	0.1	0.1	0.0	0.0	0.1	(0.1)	0.0	(0.0)	0.0	0.3
Financial assets at fair value not held for trading											
	4.2	0.0	0.0	0.3	(0.5)	0.0	0.0	0.0	(0.0)	(0.0)	4.0
of which: Loans	0.9	0.0	0.0	0.2	(0.2)	0.0	0.0	0.0	0.0	(0.0)	0.9
of which: Auction rate securities	1.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
of which: Equity instruments	0.7	0.0	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0	(0.0)	0.7
Derivative financial instruments – liabilities											
	2.2	(0.3)	(0.4)	0.0	0.0	0.8	(0.8)	0.0	(0.0)	(0.0)	1.9
of which: Interest rate	0.3	(0.2)	(0.2)	0.0	0.0	0.1	(0.0)	0.0	(0.0)	(0.0)	0.2
of which: Equity / index	1.5	(0.1)	(0.1)	0.0	0.0	0.4	(0.6)	0.0	(0.0)	(0.0)	1.1
of which: Credit	0.3	(0.1)	(0.1)	0.0	0.0	0.2	(0.1)	0.0	(0.0)	(0.0)	0.4
Debt issued designated at fair value											
	14.2	(1.0)	(1.0)	0.0	0.0	2.5	(2.4)	0.1	(0.6)	(0.1)	12.7
Other financial liabilities designated at fair value											
	0.8	(0.0)	(0.0)	0.0	0.0	0.4	(0.2)	0.0	(0.0)	(0.0)	1.0

¹ Net gains / losses included in comprehensive income are recognized in Net interest income and Other net income from financial instruments measured at fair value through profit or loss in the Income statement, and also in Gains / (losses) from own credit on financial liabilities designated at fair value, before tax in the Statement of comprehensive income. ² Total Level 3 assets as of 31 March 2023 were USD 6.4bn (31 December 2022: USD 6.8bn). Total Level 3 liabilities as of 31 March 2023 were USD 13.3bn (31 December 2022: USD 13.0bn).

Note 8 Fair value measurement (continued)

f) Financial instruments not measured at fair value

The table below reflects the estimated fair values of financial instruments not measured at fair value. Valuation principles applied when determining fair value estimates for financial instruments not measured at fair value are consistent with those described in “Note 20 Fair value measurement” in the “Consolidated financial statements” section of the Annual Report 2022.

Financial instruments not measured at fair value

USD bn	31.3.23		31.12.22	
	Carrying amount ¹	Fair value	Carrying amount ¹	Fair value
Assets				
Cash and balances at central banks	144.2	144.2	169.4	169.4
Loans and advances to banks	14.9	15.0	14.8	14.8
Receivables from securities financing transactions measured at amortized cost	60.0	60.0	67.8	67.8
Cash collateral receivables on derivative instruments	32.7	32.6	35.0	35.0
Loans and advances to customers	390.1	378.5	387.2	374.9
Other financial assets measured at amortized cost	49.2	47.2	53.3	50.8
Liabilities				
Amounts due to banks	13.6	13.6	11.6	11.6
Payables from securities financing transactions measured at amortized cost	9.9	9.9	4.2	4.2
Cash collateral payables on derivative instruments	32.2	32.2	36.4	36.4
Customer deposits	505.6	504.9	525.1	524.8
Debt issued measured at amortized cost	116.3	113.7	114.6	113.5
Other financial liabilities measured at amortized cost ²	7.0	7.0	6.2	6.2

¹ Includes certain financial instruments where the carrying amount is a reasonable approximation of the fair value due to the instruments' short-term nature (instruments that are receivable or payable on demand, or with a remaining maturity (excluding the effects of callable features) of three months or less). ² Excludes lease liabilities.

Note 9 Derivative instruments

a) Derivative instruments

	Derivative financial assets	Notional values related to derivative financial assets ¹	Derivative financial liabilities	Notional values related to derivative financial liabilities ¹	Other notional values ²
<i>As of 31.3.23, USD bn</i>					
Derivative financial instruments					
Interest rate	36.7	1,192	34.7	1,153	13,842
Credit derivatives	1.3	42	1.3	44	
Foreign exchange	52.2	3,373	53.3	3,236	56
Equity / index	21.8	400	24.6	532	76
Commodities	1.8	76	1.6	70	19
Loan commitments measured at FVTPL	0.0	1	0.0	5	
Unsettled purchases of non-derivative financial instruments ³	0.3	33	0.2	14	
Unsettled sales of non-derivative financial instruments ³	0.1	25	0.4	29	
Total derivative financial instruments, based on IFRS netting⁴	114.3	5,143	116.1	5,081	13,993
Further netting potential not recognized on the balance sheet ⁵	(105.4)		(104.3)		
<i>of which: netting of recognized financial liabilities / assets</i>	<i>(84.9)</i>		<i>(84.9)</i>		
<i>of which: netting with collateral received / pledged</i>	<i>(20.5)</i>		<i>(19.4)</i>		
Total derivative financial instruments, after consideration of further netting potential	8.8		11.8		

As of 31.12.22, USD bn

	Derivative financial assets	Notional values related to derivative financial assets ¹	Derivative financial liabilities	Notional values related to derivative financial liabilities ¹	Other notional values ²
Derivative financial instruments					
Interest rate	39.8	1,057	37.5	1,023	11,255
Credit derivatives	1.0	37	1.2	37	
Foreign exchange	85.5	3,087	88.5	2,993	40
Equity / index	22.2	384	26.1	501	63
Commodities	1.4	68	1.4	64	18
Loan commitments measured at FVTPL	0.0	1	0.0	4	
Unsettled purchases of non-derivative financial instruments ³	0.1	12	0.1	9	
Unsettled sales of non-derivative financial instruments ³	0.1	13	0.0	11	
Total derivative financial instruments, based on IFRS netting⁴	150.1	4,660	154.9	4,642	11,376
Further netting potential not recognized on the balance sheet ⁵	(139.4)		(137.1)		
<i>of which: netting of recognized financial liabilities / assets</i>	<i>(110.9)</i>		<i>(110.9)</i>		
<i>of which: netting with collateral received / pledged</i>	<i>(28.5)</i>		<i>(26.2)</i>		
Total derivative financial instruments, after consideration of further netting potential	10.7		17.8		

1 In cases where derivative financial instruments are presented on a net basis on the balance sheet, the respective notional values of the netted derivative financial instruments are still presented on a gross basis. Notional amounts of client-cleared ETD and OTC transactions through central clearing counterparties are not disclosed, as they have a significantly different risk profile. 2 Other notional values relate to derivatives that are cleared through either a central counterparty or an exchange. The fair value of these derivatives is presented on the balance sheet net of the corresponding cash margin under Cash collateral receivables on derivative instruments and Cash collateral payables on derivative instruments and was not material for any of the periods presented. 3 Changes in the fair value of purchased and sold non-derivative financial instruments between trade date and settlement date are recognized as derivative financial instruments. 4 Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of UBS or its counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. 5 Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to "Note 21 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2022 for more information.

Note 9 Derivative instruments (continued)

b) Cash collateral on derivative instruments

<i>USD bn</i>	Receivables 31.3.23	Payables 31.3.23	Receivables 31.12.22	Payables 31.12.22
Cash collateral on derivative instruments, based on IFRS netting ¹	32.7	32.2	35.0	36.4
Further netting potential not recognized on the balance sheet ²	(18.6)	(17.3)	(22.9)	(21.9)
of which: netting of recognized financial liabilities / assets	(15.6)	(14.3)	(20.9)	(20.0)
of which: netting with collateral received / pledged	(3.0)	(3.0)	(1.9)	(1.9)
Cash collateral on derivative instruments, after consideration of further netting potential	14.1	14.9	12.1	14.5

¹ Financial assets and liabilities are presented net on the balance sheet if UBS has the unconditional and legally enforceable right to offset the recognized amounts, both in the normal course of business and in the event of default, bankruptcy or insolvency of UBS or its counterparties, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. ² Reflects the netting potential in accordance with enforceable master netting and similar arrangements where not all criteria for a net presentation on the balance sheet have been met. Refer to "Note 21 Offsetting financial assets and financial liabilities" in the "Consolidated financial statements" section of the Annual Report 2022 for more information.

Note 10 Other assets and liabilities

a) Other financial assets measured at amortized cost

<i>USD m</i>	31.3.23	31.12.22
Debt securities	40,646	44,594
Loans to financial advisors	2,571	2,611
Fee- and commission-related receivables	1,927	1,812
Finance lease receivables	1,345	1,315
Settlement and clearing accounts	542	1,175
Accrued interest income	1,300	1,259
Other	847	499
Total other financial assets measured at amortized cost	49,179	53,264

b) Other non-financial assets

<i>USD m</i>	31.3.23	31.12.22
Precious metals and other physical commodities	4,506	4,471
Deposits and collateral provided in connection with litigation, regulatory and similar matters ¹	2,235	2,205
Prepaid expenses	1,265	1,076
VAT, withholding tax and other tax receivables	1,900	1,468
Properties and other non-current assets held for sale	370	369
Other	681	578
Total other non-financial assets	10,958	10,166

¹ Refer to Note 13 for more information.

c) Other financial liabilities measured at amortized cost

<i>USD m</i>	31.3.23	31.12.22
Other accrued expenses	1,895	1,760
Accrued interest expenses	1,920	1,949
Settlement and clearing accounts	1,548	1,075
Lease liabilities	3,294	3,334
Other	1,634	1,457
Total other financial liabilities measured at amortized cost	10,292	9,575

d) Other financial liabilities designated at fair value

<i>USD m</i>	31.3.23	31.12.22
Financial liabilities related to unit-linked investment contracts	14,243	13,221
Securities financing transactions	9,707	15,333
Over-the-counter debt instruments and other	1,809	1,684
Total other financial liabilities designated at fair value	25,758	30,237



Note 10 Other assets and liabilities (continued)

e) Other non-financial liabilities

USD m	31.3.23	31.12.22
Compensation-related liabilities	4,550	6,822
of which: net defined benefit liability	485	469
Current tax liabilities	968	1,071
Deferred tax liabilities	266	236
VAT, withholding tax and other tax payables	676	592
Deferred income	290	235
Other	62	84
Total other non-financial liabilities	6,811	9,040

Note 11 Debt issued designated at fair value

USD m	31.3.23	31.12.22
Equity-linked ¹	44,721	41,901
Rates-linked	15,797	16,276
Credit-linked	2,815	2,170
Fixed-rate	6,673	6,538
Commodity-linked	4,311	4,294
Other	2,916	2,459
of which: debt that contributes to total loss-absorbing capacity	2,477	1,959
Total debt issued designated at fair value	77,233	73,638

¹ Includes investment fund unit-linked instruments issued.

Note 12 Debt issued measured at amortized cost

USD m	31.3.23	31.12.22
Short-term debt¹	27,412	29,676
Senior unsecured debt that contributes to total loss-absorbing capacity (TLAC)	47,172	42,073
Senior unsecured debt other than TLAC	18,680	17,892
Subordinated debt	14,175	16,017
of which: eligible as high-trigger loss-absorbing additional tier 1 capital instruments	10,002	9,882
of which: eligible as low-trigger loss-absorbing additional tier 1 capital instruments	1,198	1,189
of which: eligible as low-trigger loss-absorbing tier 2 capital instruments	2,438	2,422
of which: eligible as non-Basel III-compliant tier 2 capital instruments	538	536
Debt issued through the Swiss central mortgage institutions	8,873	8,962
Long-term debt²	88,900	84,945
Total debt issued measured at amortized cost³	116,312	114,621

¹ Debt with an original contractual maturity of less than one year, includes mainly certificates of deposit and commercial paper. ² Debt with an original contractual maturity greater than or equal to one year. The classification of debt issued into short-term and long-term does not consider any early redemption features. ³ Net of bifurcated embedded derivatives, the fair value of which was not material for the periods presented.

Note 13 Provisions and contingent liabilities

a) Provisions

The table below presents an overview of total provisions.

<i>USD m</i>	31.3.23	31.12.22
Provisions other than provisions for expected credit losses	3,723	3,042
Provisions for expected credit losses ¹	214	201
Total provisions	3,937	3,243

¹ Refer to Note 7c for more information.

The following table presents additional information for provisions other than provisions for expected credit losses.

<i>USD m</i>	Litigation, regulatory and similar matters ¹	Restructuring ²	Other ³	Total
Balance as of 31 December 2022	2,586	130	326	3,042
Increase in provisions recognized in the income statement	729	10	15	754
Release of provisions recognized in the income statement	(5)	(5)	(4)	(14)
Provisions used in conformity with designated purpose	(22)	(49)	(9)	(80)
Capitalized reinstatement costs	0	0	1	1
Foreign currency translation / unwind of discount	19	1	1	21
Balance as of 31 March 2023	3,306	87	330	3,723

¹ Consists of provisions for losses resulting from legal, liability and compliance risks. ² Consists of personnel-related restructuring provisions of USD 61m as of 31 March 2023 (31 December 2022: USD 102m) and provisions for onerous contracts of USD 26m as of 31 March 2023 (31 December 2022: USD 28m). ³ Mainly includes provisions related to real estate, employee benefits and operational risks.

Information about provisions and contingent liabilities in respect of litigation, regulatory and similar matters, as a class, is included in Note 13b. There are no material contingent liabilities associated with the other classes of provisions.

b) Litigation, regulatory and similar matters

The Group operates in a legal and regulatory environment that exposes it to significant litigation and similar risks arising from disputes and regulatory proceedings. As a result, UBS (which for purposes of this Note may refer to UBS Group AG and/or one or more of its subsidiaries, as applicable) is involved in various disputes and legal proceedings, including litigation, arbitration, and regulatory and criminal investigations.

Such matters are subject to many uncertainties, and the outcome and the timing of resolution are often difficult to predict, particularly in the earlier stages of a case. There are also situations where the Group may enter into a settlement agreement. This may occur in order to avoid the expense, management distraction or reputational implications of continuing to contest liability, even for those matters for which the Group believes it should be exonerated. The uncertainties inherent in all such matters affect the amount and timing of any potential outflows for both matters with respect to which provisions have been established and other contingent liabilities. The Group makes provisions for such matters brought against it when, in the opinion of management after seeking legal advice, it is more likely than not that the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required, and the amount can be reliably estimated. Where these factors are otherwise satisfied, a provision may be established for claims that have not yet been asserted against the Group, but are nevertheless expected to be, based on the Group's experience with similar asserted claims. If any of those conditions is not met, such matters result in contingent liabilities. If the amount of an obligation cannot be reliably estimated, a liability exists that is not recognized even if an outflow of resources is probable. Accordingly, no provision is established even if the potential outflow of resources with respect to such matters could be significant. Developments relating to a matter that occur after the relevant reporting period, but prior to the issuance of financial statements, which affect management's assessment of the provision for such matter (because, for example, the developments provide evidence of conditions that existed at the end of the reporting period), are adjusting events after the reporting period under IAS 10 and must be recognized in the financial statements for the reporting period.

Note 13 Provisions and contingent liabilities (continued)

Specific litigation, regulatory and other matters are described below, including all such matters that management considers to be material and others that management believes to be of significance due to potential financial, reputational and other effects. The amount of damages claimed, the size of a transaction or other information is provided where available and appropriate in order to assist users in considering the magnitude of potential exposures.

In the case of certain matters below, we state that we have established a provision, and for the other matters, we make no such statement. When we make this statement and we expect disclosure of the amount of a provision to prejudice seriously our position with other parties in the matter because it would reveal what UBS believes to be the probable and reliably estimable outflow, we do not disclose that amount. In some cases we are subject to confidentiality obligations that preclude such disclosure. With respect to the matters for which we do not state whether we have established a provision, either: (a) we have not established a provision, in which case the matter is treated as a contingent liability under the applicable accounting standard; or (b) we have established a provision but expect disclosure of that fact to prejudice seriously our position with other parties in the matter because it would reveal the fact that UBS believes an outflow of resources to be probable and reliably estimable.

With respect to certain litigation, regulatory and similar matters for which we have established provisions, we are able to estimate the expected timing of outflows. However, the aggregate amount of the expected outflows for those matters for which we are able to estimate expected timing is immaterial relative to our current and expected levels of liquidity over the relevant time periods.

The aggregate amount provisioned for litigation, regulatory and similar matters as a class is disclosed in the “Provisions” table in Note 13a above. It is not practicable to provide an aggregate estimate of liability for our litigation, regulatory and similar matters as a class of contingent liabilities. Doing so would require UBS to provide speculative legal assessments as to claims and proceedings that involve unique fact patterns or novel legal theories, that have not yet been initiated or are at early stages of adjudication, or as to which alleged damages have not been quantified by the claimants. Although UBS therefore cannot provide a numerical estimate of the future losses that could arise from litigation, regulatory and similar matters, UBS believes that the aggregate amount of possible future losses from this class that are more than remote substantially exceeds the level of current provisions.

Litigation, regulatory and similar matters may also result in non-monetary penalties and consequences. A guilty plea to, or conviction of, a crime could have material consequences for UBS. Resolution of regulatory proceedings may require UBS to obtain waivers of regulatory disqualifications to maintain certain operations, may entitle regulatory authorities to limit, suspend or terminate licenses and regulatory authorizations, and may permit financial market utilities to limit, suspend or terminate UBS’s participation in such utilities. Failure to obtain such waivers, or any limitation, suspension or termination of licenses, authorizations or participations, could have material consequences for UBS.

The risk of loss associated with litigation, regulatory and similar matters is a component of operational risk for purposes of determining capital requirements. Information concerning our capital requirements and the calculation of operational risk for this purpose is included in the “Capital management” section of this report.

Provisions for litigation, regulatory and similar matters by business division and in Group Functions¹

<i>USD m</i>	Global Wealth Management	Personal & Corporate Banking	Asset Management	Investment Bank	Group Functions	Total
Balance as of 31 December 2022	1,182	159	8	308	928	2,586
Increase in provisions recognized in the income statement	17	0	0	46	665	729
Release of provisions recognized in the income statement	(4)	0	0	(1)	0	(5)
Provisions used in conformity with designated purpose	(17)	0	0	(5)	0	(22)
Foreign currency translation / unwind of discount	14	2	0	2	0	19
Balance as of 31 March 2023	1,193	161	8	351	1,594	3,306

¹ Provisions, if any, for the matters described in item 3 of this Note are recorded in Global Wealth Management, and provisions, if any, for the matters described in item 2 are recorded in Group Functions. Provisions, if any, for the matters described in items 1 and 5 of this Note are allocated between Global Wealth Management and Personal & Corporate Banking, and provisions, if any, for the matters described in item 4 are allocated between the Investment Bank and Group Functions.

Note 13 Provisions and contingent liabilities (continued)

1. Inquiries regarding cross-border wealth management businesses

Tax and regulatory authorities in a number of countries have made inquiries, served requests for information or examined employees located in their respective jurisdictions relating to the cross-border wealth management services provided by UBS and other financial institutions.

Since 2013, UBS (France) S.A., UBS AG and certain former employees have been under investigation in France in relation to UBS's cross-border business with French clients. In connection with this investigation, the investigating judges ordered UBS AG to provide bail ("*caution*") of EUR 1.1bn.

In 2019, the court of first instance returned a verdict finding UBS AG guilty of unlawful solicitation of clients on French territory and aggravated laundering of the proceeds of tax fraud, and UBS (France) S.A. guilty of aiding and abetting unlawful solicitation and of laundering the proceeds of tax fraud. The court imposed fines aggregating EUR 3.7bn on UBS AG and UBS (France) S.A. and awarded EUR 800m of civil damages to the French state. A trial in the French Court of Appeal took place in March 2021. In December 2021, the Court of Appeal found UBS AG guilty of unlawful solicitation and aggravated laundering of the proceeds of tax fraud. The court ordered a fine of EUR 3.75m, the confiscation of EUR 1bn, and awarded civil damages to the French state of EUR 800m. UBS AG has filed an appeal with the French Supreme Court to preserve its rights. The notice of appeal enables UBS AG to thoroughly assess the verdict of the Court of Appeal and to determine next steps in the best interest of its stakeholders. The fine and confiscation imposed by the Court of Appeal are suspended during the appeal. The civil damages award has been paid to the French state (EUR 99m of which was deducted from the bail), subject to the result of UBS's appeal.

Our balance sheet at 31 March 2023 reflected provisions with respect to this matter in an amount of EUR 1.1bn (USD 1.2bn). The wide range of possible outcomes in this case contributes to a high degree of estimation uncertainty and the provision reflects our best estimate of possible financial implications, although actual penalties and civil damages could exceed (or may be less than) the provision amount.

Our balance sheet at 31 March 2023 reflected provisions with respect to matters described in this item 1 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

2. Claims related to sales of residential mortgage-backed securities and mortgages

From 2002 through 2007, prior to the crisis in the US residential loan market, UBS was a substantial issuer and underwriter of US residential mortgage-backed securities (RMBS) and was a purchaser and seller of US residential mortgages.

In 2018, the DOJ filed a civil complaint in the District Court for the Eastern District of New York. The complaint seeks unspecified civil monetary penalties under the Financial Institutions Reform, Recovery and Enforcement Act of 1989 related to UBS's issuance, underwriting and sale of 40 RMBS transactions in 2006 and 2007. UBS moved to dismiss the civil complaint in 2019. Later in 2019, the district court denied UBS's motion to dismiss. UBS and the DOJ are in advanced discussions to resolve this matter.

Our balance sheet at 31 March 2023 reflected a provision with respect to matters described in this item 2 in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of this matter cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

Note 13 Provisions and contingent liabilities (continued)

3. Madoff

In relation to the Bernard L. Madoff Investment Securities LLC (BMIS) investment fraud, UBS AG, UBS (Luxembourg) S.A. (now UBS Europe SE, Luxembourg branch) and certain other UBS subsidiaries have been subject to inquiries by a number of regulators, including the Swiss Financial Market Supervisory Authority (FINMA) and the Luxembourg Commission de Surveillance du Secteur Financier. Those inquiries concerned two third-party funds established under Luxembourg law, substantially all assets of which were with BMIS, as well as certain funds established in offshore jurisdictions with either direct or indirect exposure to BMIS. These funds faced severe losses, and the Luxembourg funds are in liquidation. The documentation establishing both funds identifies UBS entities in various roles, including custodian, administrator, manager, distributor and promoter, and indicates that UBS employees serve as board members.

In 2009 and 2010, the liquidators of the two Luxembourg funds filed claims against UBS entities, non-UBS entities and certain individuals, including current and former UBS employees, seeking amounts totaling approximately EUR 2.1bn, which includes amounts that the funds may be held liable to pay the trustee for the liquidation of BMIS (BMIS Trustee).

A large number of alleged beneficiaries have filed claims against UBS entities (and non-UBS entities) for purported losses relating to the Madoff fraud. The majority of these cases have been filed in Luxembourg, where decisions that the claims in eight test cases were inadmissible have been affirmed by the Luxembourg Court of Appeal, and the Luxembourg Supreme Court has dismissed a further appeal in one of the test cases.

In the US, the BMIS Trustee filed claims against UBS entities, among others, in relation to the two Luxembourg funds and one of the offshore funds. The total amount claimed against all defendants in these actions was not less than USD 2bn. In 2014, the US Supreme Court rejected the BMIS Trustee's motion for leave to appeal decisions dismissing all claims except those for the recovery of approximately USD 125m of payments alleged to be fraudulent conveyances and preference payments. In 2016, the bankruptcy court dismissed these claims against the UBS entities. In 2019, the Court of Appeals reversed the dismissal of the BMIS Trustee's remaining claims, and the US Supreme Court subsequently denied a petition seeking review of the Court of Appeals' decision. The case has been remanded to the Bankruptcy Court for further proceedings.

4. Foreign exchange, LIBOR and benchmark rates, and other trading practices

Foreign exchange-related regulatory matters: Beginning in 2013, numerous authorities commenced investigations concerning possible manipulation of foreign exchange markets and precious metals prices. As a result of these investigations, UBS entered into resolutions with Swiss, US and United Kingdom regulators and the European Commission. UBS was granted conditional immunity by the Antitrust Division of the DOJ and by authorities in other jurisdictions in connection with potential competition law violations relating to foreign exchange and precious metals businesses.

Foreign exchange-related civil litigation: Putative class actions have been filed since 2013 in US federal courts and in other jurisdictions against UBS and other banks on behalf of putative classes of persons who engaged in foreign currency transactions with any of the defendant banks. UBS has resolved US federal court class actions relating to foreign currency transactions with the defendant banks and persons who transacted in foreign exchange futures contracts and options on such futures under a settlement agreement that provides for UBS to pay an aggregate of USD 141m and provide cooperation to the settlement classes. Certain class members have excluded themselves from that settlement and have filed individual actions in US and English courts against UBS and other banks, alleging violations of US and European competition laws and unjust enrichment. UBS and the other banks have reached an agreement to resolve those individual matters.

In 2015, a putative class action was filed in federal court against UBS and numerous other banks on behalf of persons and businesses in the US who directly purchased foreign currency from the defendants and alleged co-conspirators for their own end use. In 2017, the court granted UBS's (and the other banks') motions to dismiss the complaint. The plaintiffs filed an amended complaint later in 2017. In 2018, the court denied the defendants' motions to dismiss the amended complaint. In March 2022, the court denied plaintiffs' motion for class certification.

Note 13 Provisions and contingent liabilities (continued)

LIBOR and other benchmark-related regulatory matters: Numerous government agencies conducted investigations regarding potential improper attempts by UBS, among others, to manipulate LIBOR and other benchmark rates at certain times. UBS reached settlements or otherwise concluded investigations relating to benchmark interest rates with the investigating authorities. UBS was granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and the Swiss Competition Commission (WEKO), in connection with potential antitrust or competition law violations related to certain rates. However, UBS has not reached a final settlement with WEKO, as the Secretariat of WEKO has asserted that UBS does not qualify for full immunity.

LIBOR and other benchmark-related civil litigation: A number of putative class actions and other actions are pending in the federal courts in New York against UBS and numerous other banks on behalf of parties who transacted in certain interest rate benchmark-based derivatives. Also pending in the US and in other jurisdictions are a number of other actions asserting losses related to various products whose interest rates were linked to LIBOR and other benchmarks, including adjustable rate mortgages, preferred and debt securities, bonds pledged as collateral, loans, depository accounts, investments and other interest-bearing instruments. The complaints allege manipulation, through various means, of certain benchmark interest rates, including USD LIBOR, Euroyen TIBOR, Yen LIBOR, EURIBOR, CHF LIBOR, GBP LIBOR, SGD SIBOR and SOR and Australian BBSW, and seek unspecified compensatory and other damages under varying legal theories.

USD LIBOR class and individual actions in the US: In 2013 and 2015, the district court in the USD LIBOR actions dismissed, in whole or in part, certain plaintiffs' antitrust claims, federal racketeering claims, CEA claims, and state common law claims, and again dismissed the antitrust claims in 2016 following an appeal. In 2021, the Second Circuit affirmed the district court's dismissal in part and reversed in part and remanded to the district court for further proceedings. The Second Circuit, among other things, held that there was personal jurisdiction over UBS and other foreign defendants based on allegations that at least one alleged co-conspirator undertook an overt act in the United States. Separately, in 2018, the Second Circuit reversed in part the district court's 2015 decision dismissing certain individual plaintiffs' claims and certain of these actions are now proceeding. In 2018, the district court denied plaintiffs' motions for class certification in the USD class actions for claims pending against UBS, and plaintiffs sought permission to appeal that ruling to the Second Circuit. In 2018, the Second Circuit denied the petition to appeal of the class of USD lenders and, subsequently, denied the petition of the USD exchange class. In 2019, a putative class action was filed in the District Court for the Southern District of New York against UBS and numerous other banks on behalf of US residents who, since 2014, directly transacted with a defendant bank in USD LIBOR instruments. The complaint asserts antitrust claims. The defendants moved to dismiss the complaint in 2019. In 2020 the court granted defendants' motion to dismiss the complaint in its entirety. Plaintiffs have appealed the dismissal. In March 2022, the Second Circuit dismissed the appeal because appellants, who had been substituted in to replace the original plaintiffs who had withdrawn, lacked standing to pursue the appeal. In 2020, an individual action was filed in the Northern District of California against UBS and numerous other banks alleging that the defendants conspired to fix the interest rate used as the basis for loans to consumers by jointly setting the USD LIBOR rate and monopolized the market for LIBOR-based consumer loans and credit cards. Defendants moved to dismiss the complaint in 2021. In September 2022, the court granted defendants' motion to dismiss the complaint in its entirety, while allowing plaintiffs the opportunity to file an amended complaint. Plaintiffs filed an amended complaint in October 2022, and defendants have moved to dismiss the amended complaint in November 2022.

Other benchmark class actions in the US:

Yen LIBOR / Euroyen TIBOR – In 2014, 2015 and 2017, the court in one of the Yen LIBOR / Euroyen TIBOR lawsuits dismissed certain of the plaintiffs' claims, including the plaintiffs' federal antitrust and racketeering claims. In 2020, the court granted defendants' motion for judgment on the pleadings and dismissed the lone remaining claim in the action as impermissibly extraterritorial. In October 2022, the appeals court affirmed the dismissal on multiple grounds. In 2017, the court dismissed the other Yen LIBOR / Euroyen TIBOR action in its entirety on standing grounds. In 2020, the appeals court reversed the dismissal and, subsequently, plaintiffs in that action filed an amended complaint focused on Yen LIBOR. The court granted in part and denied in part defendants' motion to dismiss the amended complaint in 2021. In August 2022, the court granted UBS's motion for reconsideration and dismissed the case against UBS.

Note 13 Provisions and contingent liabilities (continued)

CHF LIBOR – In 2017, the court dismissed the CHF LIBOR action on standing grounds and failure to state a claim. Plaintiffs filed an amended complaint, and the court granted a renewed motion to dismiss in 2019. Plaintiffs appealed. In 2021, the Second Circuit granted the parties' joint motion to vacate the dismissal and remand the case for further proceedings. Plaintiffs filed a third amended complaint in November 2022 and defendants have moved to dismiss the amended complaint in January 2023.

EURIBOR – In 2017, the court in the EURIBOR lawsuit dismissed the case as to UBS and certain other foreign defendants for lack of personal jurisdiction. Plaintiffs have appealed.

GBP LIBOR – The court dismissed the GBP LIBOR action in 2019. Plaintiffs have appealed.

Government bonds: Putative class actions have been filed since 2015 in US federal courts against UBS and other banks on behalf of persons who participated in markets for US Treasury securities since 2007. A consolidated complaint was filed in 2017 in the US District Court for the Southern District of New York alleging that the banks colluded with respect to, and manipulated prices of, US Treasury securities sold at auction and in the secondary market and asserting claims under the antitrust laws and for unjust enrichment. Defendants' motions to dismiss the consolidated complaint were granted in 2021. Plaintiffs filed an amended complaint, which defendants moved to dismiss later in 2021. In March 2022, the court granted defendants' motion to dismiss that complaint. Plaintiffs have appealed the dismissal. Similar class actions have been filed concerning European government bonds and other government bonds.

In 2021, the European Commission issued a decision finding that UBS and six other banks breached European Union antitrust rules in 2007–2011 relating to European government bonds. The European Commission fined UBS EUR 172m. UBS is appealing the amount of the fine.

With respect to additional matters and jurisdictions not encompassed by the settlements and orders referred to above, our balance sheet at 31 March 2023 reflected a provision in an amount that UBS believes to be appropriate under the applicable accounting standard. As in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

5. Swiss retrocessions

The Federal Supreme Court of Switzerland ruled in 2012, in a test case against UBS, that distribution fees paid to a firm for distributing third-party and intra-group investment funds and structured products must be disclosed and surrendered to clients who have entered into a discretionary mandate agreement with the firm, absent a valid waiver. FINMA issued a supervisory note to all Swiss banks in response to the Supreme Court decision. UBS has met the FINMA requirements and has notified all potentially affected clients.

The Supreme Court decision has resulted, and continues to result, in a number of client requests for UBS to disclose and potentially surrender retrocessions. Client requests are assessed on a case-by-case basis. Considerations taken into account when assessing these cases include, among other things, the existence of a discretionary mandate and whether or not the client documentation contained a valid waiver with respect to distribution fees.

Our balance sheet at 31 March 2023 reflected a provision with respect to matters described in this item 5 in an amount that UBS believes to be appropriate under the applicable accounting standard. The ultimate exposure will depend on client requests and the resolution thereof, factors that are difficult to predict and assess. Hence, as in the case of other matters for which we have established provisions, the future outflow of resources in respect of such matters cannot be determined with certainty based on currently available information and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that we have recognized.

UBS AG interim consolidated financial information (unaudited)

This section contains a comparison of selected financial and capital information between UBS Group AG consolidated and UBS AG consolidated. Refer to the UBS AG first quarter 2023 report, which will be available as of 27 April 2023 under “Quarterly reporting” at ubs.com/investors, for the interim consolidated financial statements of UBS AG.

Comparison between UBS Group AG consolidated and UBS AG consolidated

The accounting policies applied under International Financial Reporting Standards (IFRS) to both the UBS Group AG and the UBS AG consolidated financial statements are identical. However, there are certain scope and presentation differences as noted below.

Assets, liabilities, revenues, operating expenses and tax expenses / (benefits) relating to UBS Group AG and its directly held subsidiaries, including UBS Business Solutions AG, are reflected in the consolidated financial statements of UBS Group AG but not of UBS AG. UBS AG’s assets, liabilities, revenues and operating expenses related to transactions with UBS Group AG and its directly held subsidiaries, including UBS Business Solutions AG and other shared services subsidiaries, are not subject to elimination in the UBS AG consolidated financial statements, but are eliminated in the UBS Group AG consolidated financial statements.

Differences in net profit between UBS Group AG consolidated and UBS AG consolidated mainly arise as UBS Business Solutions AG and other shared services subsidiaries of UBS Group AG charge other legal entities within the UBS AG consolidation scope for services provided, including a markup on costs incurred. In addition, and to a lesser extent, differences arise as a result of certain compensation-related matters, including pensions.

The equity of UBS Group AG consolidated was USD 1.6bn lower than the equity of UBS AG consolidated as of 31 March 2023. This difference was mainly driven by treasury shares acquired as part of our share repurchase programs and those held to hedge share delivery obligations associated with Group compensation plans, as well as additional share premium recognized at the UBS AG consolidated level related to the establishment of UBS Group AG and UBS Business Solutions AG, a wholly owned subsidiary of UBS Group AG. These effects were partly offset by higher dividends paid by UBS AG to UBS Group AG compared with the dividend distributions of UBS Group AG, as well as higher retained earnings in the UBS Group AG consolidated financial statements, largely related to the aforementioned markup charged by shared services subsidiaries of UBS Group AG to other legal entities in the UBS AG scope of consolidation. In addition, UBS Group AG is the grantor of the majority of the compensation plans of the Group and recognizes share premium for equity-settled awards granted.

The going concern capital of UBS Group AG consolidated was USD 2.6bn higher than the going concern capital of UBS AG consolidated as of 31 March 2023, reflecting higher common equity tier 1 (CET1) capital of USD 1.8bn and going concern loss-absorbing additional tier 1 (AT1) capital of USD 0.8bn.

The USD 1.8bn higher CET1 capital of UBS Group AG consolidated was primarily due to lower UBS Group AG accruals for dividends to shareholders, partly offset by compensation-related regulatory capital accruals at the UBS Group AG level and lower UBS Group AG consolidated IFRS equity of USD 1.6bn.

The USD 0.8bn higher going concern loss-absorbing AT1 capital of UBS Group AG consolidated was mainly driven by Deferred Contingent Capital Plan awards granted at the Group level to eligible employees for the performance years 2018 to 2022, partly offset by six loss-absorbing AT1 capital instruments on lent by UBS Group AG to UBS AG.

Comparison between UBS Group AG consolidated and UBS AG consolidated

USD m, except where indicated	As of or for the quarter ended 31.3.23			As of or for the quarter ended 31.12.22		
	UBS Group AG consolidated	UBS AG consolidated	Difference (absolute)	UBS Group AG consolidated	UBS AG consolidated	Difference (absolute)
Income statement						
Total revenues	8,744	8,844	(101)	8,029	8,078	(49)
Credit loss expense / (release)	38	38	0	7	7	0
Operating expenses	7,210	7,350	(140)	6,085	6,282	(198)
Operating profit / (loss) before tax	1,495	1,456	39	1,937	1,788	148
of which: Global Wealth Management	1,215	1,199	17	1,058	1,047	11
of which: Personal & Corporate Banking	599	597	2	529	525	4
of which: Asset Management	94	94	0	124	122	2
of which: Investment Bank	477	455	21	112	108	4
of which: Group Functions	(890)	(889)	(1)	114	(13)	127
Net profit / (loss)	1,037	1,012	25	1,657	1,522	135
of which: net profit / (loss) attributable to shareholders	1,029	1,004	25	1,653	1,518	135
of which: net profit / (loss) attributable to non-controlling interests	8	8	0	4	4	0
Statement of comprehensive income						
Other comprehensive income	796	792	4	551	499	52
of which: attributable to shareholders	791	787	4	538	485	52
of which: attributable to non-controlling interests	5	5	0	13	13	0
Total comprehensive income	1,833	1,804	29	2,208	2,020	187
of which: attributable to shareholders	1,820	1,791	29	2,190	2,003	187
of which: attributable to non-controlling interests	13	13	0	17	17	0
Balance sheet						
Total assets	1,053,134	1,056,758	(3,625)	1,104,364	1,105,436	(1,072)
Total liabilities	996,028	998,021	(1,993)	1,047,146	1,048,496	(1,349)
Total equity	57,106	58,738	(1,632)	57,218	56,940	278
of which: equity attributable to shareholders	56,754	58,386	(1,632)	56,876	56,598	278
of which: equity attributable to non-controlling interests	352	352	0	342	342	0
Capital information						
Common equity tier 1 capital	44,590	42,801	1,789	45,457	42,929	2,528
Going concern capital	57,694	55,116	2,578	58,321	54,770	3,551
Risk-weighted assets	321,660	321,224	436	319,585	317,823	1,762
Common equity tier 1 capital ratio (%)	13.9	13.3	0.5	14.2	13.5	0.7
Going concern capital ratio (%)	17.9	17.2	0.8	18.2	17.2	1.0
Total loss-absorbing capacity ratio (%)	34.3	33.5	0.8	33.0	32.0	0.9
Leverage ratio denominator	1,014,446	1,018,023	(3,577)	1,028,461	1,029,561	(1,100)
Common equity tier 1 leverage ratio (%)	4.40	4.20	0.19	4.42	4.17	0.25

Significant regulated subsidiary and sub-group information

Unaudited

Financial and regulatory key figures for our significant regulated subsidiaries and sub-groups

	UBS AG (standalone)		UBS Switzerland AG (standalone)		UBS Europe SE (consolidated)		UBS Americas Holding LLC (consolidated)	
<i>All values in million, except where indicated</i>	USD		CHF		EUR		USD	
Financial and regulatory requirements	Swiss GAAP Swiss SRB rules		Swiss GAAP Swiss SRB rules		IFRS EU regulatory rules		US GAAP US Basel III rules	
As of or for the quarter ended	31.3.23	31.12.22	31.3.23	31.12.22	31.3.23	31.12.22	31.3.23	31.12.22 ¹
Financial information²								
Income statement								
Total operating income ³	2,690	3,584	2,436	2,244	301	289	3,279	3,332
Total operating expenses	1,961	1,890	1,338	1,342	224	185	3,117	3,623
Operating profit / (loss) before tax	729	1,694	1,098	901	77	104	162	(291)
Net profit / (loss)	726	1,707	893	753	58	69	77	(492)
Balance sheet								
Total assets	513,593	504,767	313,512	315,657	49,348	47,978	197,394	201,777
Total liabilities	455,505	447,406	297,125	300,164	45,672	44,360	172,729	176,973
Total equity	58,088	57,361	16,387	15,493	3,675	3,617	24,665	24,804
Capital⁴								
Common equity tier 1 capital	53,476	53,995	12,356	12,586	2,425	2,441	10,579	10,536
Additional tier 1 capital	12,315	11,841	5,389	5,393	600	600	5,094	5,082
Total going concern capital / Tier 1 capital	65,791	65,836	17,745	17,978	3,025	3,041	15,673	15,618
Tier 2 capital	2,968	2,949					217	131
Total capital					3,025	3,041	15,889	15,749
Total gone concern loss-absorbing capacity	52,617	46,982	11,257	11,267	2,127 ⁵	2,130 ⁵	7,400 ⁶	7,400 ⁶
Total loss-absorbing capacity	118,408	112,818	29,001	29,245	5,152	5,171	23,073	23,018
Risk-weighted assets and leverage ratio denominator⁴								
Risk-weighted assets	348,235	332,864	108,077	107,208	10,705	10,726	71,901	70,324
Leverage ratio denominator	589,317	575,461	330,362	332,280	47,825	41,818	188,330	193,837
Supplementary leverage ratio denominator							209,465	214,543
Capital and leverage ratios (%)⁴								
Common equity tier 1 capital ratio	15.4	16.2	11.4	11.7	22.6	22.8	14.7	15.0
Going concern capital ratio / Tier 1 capital ratio	18.9	19.8	16.4	16.8	28.3	28.3	21.8	22.2
Total capital ratio					28.3	28.3	22.1	22.4
Total loss-absorbing capacity ratio			26.8	27.3	48.1	48.2	32.1	32.7
Tier 1 leverage ratio					6.3	7.3	8.3	8.1
Supplementary tier 1 leverage ratio							7.5	7.3
Going concern leverage ratio	11.2	11.4	5.4	5.4				
Total loss-absorbing capacity leverage ratio			8.8	8.8	10.8	12.4	12.3	11.9
Gone concern capital coverage ratio	120.6	117.1						
Liquidity coverage ratio⁴								
High-quality liquid assets (bn)	98.8	101.6	85.3	88.9	20.3	20.6	24.9	26.3
Net cash outflows (bn)	52.4	53.6	60.2	62.4	13.2	13.1	16.3	18.3
Liquidity coverage ratio (%)	189.1 ⁷	191.2	141.9 ⁸	142.4	155.0	158.7	152.9	143.5
Net stable funding ratio^{4,9}								
Total available stable funding (bn)	255.0	254.4	220.8	221.7	13.3	13.9		
Total required stable funding (bn)	289.0	280.2	165.2	162.3	8.6	7.9		
Net stable funding ratio (%)	88.2 ¹⁰	90.8	133.7 ¹⁰	136.6	155.4	174.6		
Other								
Joint and several liability between UBS AG and UBS Switzerland AG (bn) ¹¹			3	4				

¹ Comparative information has been aligned with UBS Americas Holding LLC's final 2022 audited financial statements, which included an increase in provisions related to the US residential mortgage-backed securities litigation matter. ² The financial information disclosed does not represent financial statements under the respective GAAP / IFRS. ³ The total operating income includes credit loss expense or release. ⁴ Refer to the 31 March 2023 Pillar 3 Report, available under "Pillar 3 disclosures" at ubs.com/investors, for more information. ⁵ Consists of positions that meet the conditions laid down in Art. 72a-b of the Capital Requirements Regulation (CRR) II with regard to contractual, structural or legal subordination. ⁶ Consists of eligible long-term debt that meets the conditions specified in 12 CFR 252.162 of the final TLAC rules. Total loss-absorbing capacity is the sum of tier 1 capital (excluding minority interest) and eligible long-term debt. ⁷ In the first quarter of 2023, the liquidity coverage ratio (the LCR) of UBS AG was 189.1%, remaining above the prudential requirements communicated by FINMA. ⁸ In the first quarter of 2023, the LCR of UBS Switzerland AG, which is a Swiss SRB, was 141.9%, remaining above the prudential

requirement communicated by FINMA in connection with the Swiss Emergency Plan. ⁹ For UBS Americas Holding LLC consolidated, the NSFR requirement became effective as of 1 July 2021 and related disclosures will come into effect in the second quarter of 2023. ¹⁰ In accordance with Art. 17h para. 3 and 4 of the Liquidity Ordinance, UBS AG standalone is required to maintain a minimum NSFR of at least 80% without taking into account excess funding of UBS Switzerland AG and 100% after taking into account such excess funding. ¹¹ Refer to the “Capital, liquidity and funding, and balance sheet” section of this report for more information about the joint and several liability. Under certain circumstances, the Swiss Banking Act and FINMA’s Banking Insolvency Ordinance authorize FINMA to modify, extinguish or convert to common equity liabilities of a bank in connection with a resolution or insolvency of such bank.

UBS Group AG is a holding company and conducts substantially all of its operations through UBS AG and subsidiaries thereof. UBS Group AG and UBS AG have contributed a significant portion of their respective capital to, and provide substantial liquidity to, such subsidiaries. Many of these subsidiaries are subject to regulations requiring compliance with minimum capital, liquidity and similar requirements. The tables in this section summarize the regulatory capital components and capital ratios of our significant regulated subsidiaries and sub-groups determined under the regulatory framework of each subsidiary's or sub-group's home jurisdiction.

Supervisory authorities generally have discretion to impose higher requirements or to otherwise limit the activities of subsidiaries. Supervisory authorities also may require entities to measure capital and leverage ratios on a stressed basis and may limit the ability of an entity to engage in new activities or take capital actions based on the results of those tests.

Following the completion of the annual Dodd–Frank Act Stress Test (DFAST) and the Comprehensive Capital Analysis and Review (CCAR), UBS Americas Holding LLC was assigned a stress capital buffer (an SCB) of 4.8% (previously 7.1%) under the SCB rule as of 1 October 2022, resulting in a total common equity tier 1 capital requirement of 9.3%.

Standalone regulatory information for UBS AG and UBS Switzerland AG, as well as consolidated regulatory information for UBS Europe SE and UBS Americas Holding LLC, is provided in the 31 March 2023 Pillar 3 Report, available under “Pillar 3 disclosures” at ubs.com/investors.

Selected financial and regulatory information for UBS AG consolidated is included in the key figures table below. Refer also to the UBS AG first quarter 2023 report, which will be available as of 27 April 2023 under “Quarterly reporting” at ubs.com/investors.

UBS AG consolidated key figures

USD m, except where indicated	As of or for the quarter ended		
	31.3.23	31.12.22	31.3.22
Results			
Total revenues	8,844	8,078	9,494
Credit loss expense / (release)	38	7	18
Operating expenses	7,350	6,282	6,916
Operating profit / (loss) before tax	1,456	1,788	2,559
Net profit / (loss) attributable to shareholders	1,004	1,518	2,004
Profitability and growth			
Return on equity (%)	7.0	10.9	13.8
Return on tangible equity (%)	7.8	12.3	15.5
Return on common equity tier 1 capital (%)	9.4	14.3	19.3
Return on leverage ratio denominator, gross (%)	3.5	3.2	3.5
Cost / income ratio (%)	83.1	77.8	72.8
Net profit growth (%)	(49.9)	20.9	17.2
Resources			
Total assets	1,056,758	1,105,436	1,139,876
Equity attributable to shareholders	58,386	56,598	57,962
Common equity tier 1 capital ¹	42,801	42,929	41,577
Risk-weighted assets ¹	321,224	317,823	309,374
Common equity tier 1 capital ratio (%) ¹	13.3	13.5	13.4
Going concern capital ratio (%) ¹	17.2	17.2	18.1
Total loss-absorbing capacity ratio (%) ¹	33.5	32.0	33.1
Leverage ratio denominator ¹	1,018,023	1,029,561	1,072,766
Common equity tier 1 leverage ratio (%) ¹	4.20	4.17	3.88
Other			
Invested assets (USD bn) ²	4,160	3,957	4,380
Personnel (full-time equivalents)	48,105	47,628	47,139

¹ Based on the Swiss systemically relevant bank framework as of 1 January 2020. Refer to the “Capital management” section of this report for more information. ² Consists of invested assets for Global Wealth Management, Asset Management and Personal & Corporate Banking. Refer to “Note 31 Invested assets and net new money” in the “Consolidated financial statements” section of our Annual Report 2022 for more information.

Appendix

Alternative performance measures

Alternative performance measures

An alternative performance measure (an APM) is a financial measure of historical or future financial performance, financial position or cash flows other than a financial measure defined or specified in the applicable recognized accounting standards or in other applicable regulations. We report a number of APMs in the discussion of the financial and operating performance of the Group, our business divisions and our Group Functions. We use APMs to provide a more complete picture of our operating performance and to reflect management's view of the fundamental drivers of our business results. A definition of each APM, the method used to calculate it and the information content are presented in alphabetical order in the table below. Our APMs may qualify as non-GAAP measures as defined by US Securities and Exchange Commission (SEC) regulations.

APM label	Calculation	Information content
Active Digital Banking clients in Corporate & Institutional Clients (%) – Personal & Corporate Banking	Calculated as the average number of active clients for each month in the relevant period divided by the average number of total clients. "Clients" refers to the number of unique business relationships or legal entities operated by Corporate & Institutional Clients, excluding clients that do not have an account, mono-product clients and clients that have defaulted on loans or credit facilities. At the end of each month, any client that has logged on at least once in that month is determined to be "active" (a log-in time stamp is allocated to all business relationship numbers or per legal entity in a digital banking contract).	This measure provides information about the proportion of active Digital Banking clients in the total number of UBS clients (within the aforementioned meaning) which are serviced by Corporate & Institutional Clients.
Active Digital Banking clients in Personal Banking (%) – Personal & Corporate Banking	Calculated as the average number of active clients for each month in the relevant period divided by the average number of total clients. "Clients" refers to the number of unique business relationships operated by Personal Banking, excluding persons under the age of 15, clients who do not have a private account, clients domiciled outside Switzerland and clients who have defaulted on loans or credit facilities. At the end of each month, any client that has logged on at least once in that month is determined to be "active" (a log-in time stamp is allocated to all business relationship numbers in a digital banking contract).	This measure provides information about the proportion of active Digital Banking clients in the total number of UBS clients (within the aforementioned meaning) who are serviced by Personal Banking.
Active Mobile Banking clients in Personal Banking (%) – Personal & Corporate Banking	Calculated as the average number of active clients for each month in the relevant period divided by the average number of total clients. "Clients" refers to the number of unique business relationships operated by Personal Banking, excluding persons under the age of 15, clients who do not have a private account, clients domiciled outside Switzerland and clients who have defaulted on loans or credit facilities. At the end of each month, any client that has logged on via the mobile app at least once in that month is determined to be "active" (a log-in time stamp is allocated to all business relationship numbers in a digital banking contract).	This measure provides information about the proportion of active Mobile Banking clients in the total number of UBS clients (within the aforementioned meaning) who are serviced by Personal Banking.
Cost / income ratio (%)	Calculated as operating expenses divided by total revenues.	This measure provides information about the efficiency of the business by comparing operating expenses with gross income.
Fee and trading income for Corporate & Institutional Clients (USD and CHF) – Personal & Corporate Banking	Calculated as the total of recurring net fee and transaction-based income for Corporate & Institutional Clients.	This measure provides information about the amount of fee and trading income for Corporate & Institutional Clients.



APM label	Calculation	Information content
Fee-generating assets (USD) – Global Wealth Management	Calculated as the sum of discretionary and nondiscretionary wealth management portfolios (mandate volume) and assets where generated revenues are predominantly of a recurring nature, i.e., mainly investment, mutual, hedge and private-market funds where we have a distribution agreement, including client commitments into closed-ended private-market funds from the date that recurring fees are charged. Assets related to our Global Financial Intermediaries business are excluded, as are assets of sanctioned clients.	This measure provides information about the volume of invested assets that create a revenue stream, whether as a result of the nature of the contractual relationship with clients or through the fee structure of the asset. An increase in the level of fee-generating assets results in an increase in the associated revenue stream. Assets of sanctioned clients are excluded from fee-generating assets.
Fee-generating asset margin (bps) – Global Wealth Management	Calculated as revenues from fee-generating assets (a portion of which is included in recurring fee income and a portion of which is included in transaction-based income, annualized as applicable) divided by average fee-generating assets for the relevant mandate fee billing period. For the US, fees have been billed on daily balances since the fourth quarter of 2020 and average fee-generating assets are calculated as the average of the monthly average balances. Prior to the fourth quarter of 2020, billing was based on prior quarter-end balances, and the average fee-generating assets were thus the prior quarter-end balance. For balances outside of the US, billing is based on prior month-end balances and average fee-generating assets are thus the average of the prior month-end balances.	This measure provides information about the revenues from fee-generating assets in relation to their average volume during the relevant mandate fee billing period.
Gross margin on invested assets (bps) – Asset Management	Calculated as total revenues (annualized as applicable) divided by average invested assets.	This measure provides information about the total revenues of the business in relation to invested assets.
Impaired loan portfolio as a percentage of total loan portfolio, gross (%) – Global Wealth Management, Personal & Corporate Banking	Calculated as impaired loan portfolio divided by total gross loan portfolio.	This measure provides information about the proportion of impaired loan portfolio in the total gross loan portfolio.
Invested assets (USD and CHF) – Global Wealth Management, Personal & Corporate Banking, Asset Management	Calculated as the sum of managed fund assets, managed institutional assets, discretionary and advisory wealth management portfolios, fiduciary deposits, time deposits, savings accounts, and wealth management securities or brokerage accounts.	This measure provides information about the volume of client assets managed by or deposited with UBS for investment purposes.
Investment products for Personal Banking (USD and CHF) – Personal & Corporate Banking	Calculated as the sum of investment funds (including UBS Vitainvest third-pillar pension funds, as well as money market funds), mandates and third-party life insurance operated in Personal Banking.	This measure provides information about the volume of investment funds (including UBS Vitainvest third-pillar pension funds, as well as money market funds), mandates and third-party life insurance operated in Personal Banking.
Net interest margin (bps) – Personal & Corporate Banking	Calculated as net interest income (annualized as applicable) divided by average loans.	This measure provides information about the profitability of the business by calculating the difference between the price charged for lending and the cost of funding, relative to loan value.
Net new fee-generating assets (USD) – Global Wealth Management	Calculated as the sum of the net amount of fee-generating asset inflows and outflows, including dividend and interest inflows into mandates and outflows from mandate fees paid by clients during a specific period. Excluded from the calculation are the effects on fee-generating assets of strategic decisions by UBS to exit markets or services.	This measure provides information about the development of fee-generating assets during a specific period as a result of net flows, excluding movements due to market performance and foreign exchange translation, as well as the effects on fee-generating assets of strategic decisions by UBS to exit markets or services.
Net new fee-generating asset growth rate (%) – Global Wealth Management	Calculated as the sum of the net amount of fee-generating asset inflows and outflows recorded during a specific period (annualized as applicable) divided by total fee-generating assets at the beginning of the period.	This measure provides information about the growth of fee-generating assets during a specific period as a result of net new fee-generating asset flows.
Net new investment products for Personal Banking (USD and CHF) – Personal & Corporate Banking	Calculated as the sum of the net amount of inflows and outflows of investment products during a specific period.	This measure provides information about the development of investment products during a specific period as a result of net new investment product flows.

APM label	Calculation	Information content
Net new money (USD) – Global Wealth Management, Asset Management	Calculated as the sum of the net amount of inflows and outflows of invested assets (as defined in UBS policy) recorded during a specific period. Excluded from the calculation are the effects on invested assets of strategic decisions by UBS to exit markets or services. Net new money for Global Wealth Management is disclosed on an annual basis. Net new money is not measured for Personal & Corporate Banking.	This measure provides information about the development of invested assets during a specific period as a result of net new money flows and excludes movements due to market performance, foreign exchange translation, dividends, interest and fees, as well as the effects on invested assets of strategic decisions by UBS to exit markets or services.
Net profit growth (%)	Calculated as the change in net profit attributable to shareholders from continuing operations between current and comparison periods divided by net profit attributable to shareholders from continuing operations of the comparison period.	This measure provides information about profit growth since the comparison period.
Pre-tax profit growth (%)	Calculated as the change in net profit before tax attributable to shareholders from continuing operations between current and comparison periods divided by net profit before tax attributable to shareholders from continuing operations of the comparison period.	This measure provides information about pre-tax profit growth since the comparison period.
Recurring net fee income (USD and CHF) – Global Wealth Management, Personal & Corporate Banking	Calculated as the total of fees for services provided on an ongoing basis, such as portfolio management fees, asset-based investment fund fees and custody fees, which are generated on client assets, and administrative fees for accounts.	This measure provides information about the amount of recurring net fee income.
Return on attributed equity (%)	Calculated as annualized business division operating profit before tax divided by average attributed equity.	This measure provides information about the profitability of the business divisions in relation to attributed equity.
Return on common equity tier 1 capital (%)	Calculated as annualized net profit attributable to shareholders divided by average common equity tier 1 capital.	This measure provides information about the profitability of the business in relation to common equity tier 1 capital.
Return on equity (%)	Calculated as annualized net profit attributable to shareholders divided by average equity attributable to shareholders.	This measure provides information about the profitability of the business in relation to equity.
Return on leverage ratio denominator, gross (%)	Calculated as annualized total revenues divided by average leverage ratio denominator.	This measure provides information about the revenues of the business in relation to the leverage ratio denominator.
Return on tangible equity (%)	Calculated as annualized net profit attributable to shareholders divided by average equity attributable to shareholders less average goodwill and intangible assets.	This measure provides information about the profitability of the business in relation to tangible equity.
Tangible book value per share (USD)	Calculated as equity attributable to shareholders less goodwill and intangible assets divided by the number of shares outstanding.	This measure provides information about tangible net assets on a per-share basis.
Total book value per share (USD)	Calculated as equity attributable to shareholders divided by the number of shares outstanding.	This measure provides information about net assets on a per-share basis.
Transaction-based income (USD and CHF) – Global Wealth Management, Personal & Corporate Banking	Calculated as the total of the non-recurring portion of net fee and commission income, mainly composed of brokerage and transaction-based investment fund fees, and credit card fees, as well as fees for payment and foreign exchange transactions, together with other net income from financial instruments measured at fair value through profit or loss.	This measure provides information about the amount of the non-recurring portion of net fee and commission income, together with other net income from financial instruments measured at fair value through profit or loss.

Abbreviations frequently used in our financial reports

A	
ABS	asset-backed securities
AG	Aktiengesellschaft
AGM	Annual General Meeting of shareholders
A-IRB	advanced internal ratings-based
AIV	alternative investment vehicle
ALCO	Asset and Liability Committee
AMA	advanced measurement approach
AML	anti-money laundering
AoA	Articles of Association
APM	alternative performance measure
ARR	alternative reference rate
ARS	auction rate securities
ASF	available stable funding
AT1	additional tier 1
AuM	assets under management
B	
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BoD	Board of Directors
C	
CAO	Capital Adequacy Ordinance
CCAR	Comprehensive Capital Analysis and Review
CCF	credit conversion factor
CCP	central counterparty
CCR	counterparty credit risk
CCRC	Corporate Culture and Responsibility Committee
CDS	credit default swap
CEA	Commodity Exchange Act
CEO	Chief Executive Officer
CET1	common equity tier 1
CFO	Chief Financial Officer
CGU	cash-generating unit
CHF	Swiss franc
CIO	Chief Investment Office
C&ORC	Compliance & Operational Risk Control
CRM	credit risk mitigation (credit risk) or comprehensive risk measure (market risk)
CST	combined stress test
CUSIP	Committee on Uniform Security Identification Procedures
CVA	credit valuation adjustment
D	
DBO	defined benefit obligation
DCCP	Deferred Contingent Capital Plan
DE&I	diversity, equity and inclusion
DFAST	Dodd–Frank act stress test
DM	discount margin
DOJ	US Department of Justice
DTA	deferred tax asset
DVA	debit valuation adjustment
E	
EAD	exposure at default
EB	Executive Board
EC	European Commission
ECB	European Central Bank

ECL	expected credit loss
EGM	Extraordinary General Meeting of shareholders
EIR	effective interest rate
EL	expected loss
EMEA	Europe, Middle East and Africa
EOP	Equity Ownership Plan
EPS	earnings per share
ESG	environmental, social and governance
ESR	environmental and social risk
ETD	exchange-traded derivatives
ETF	exchange-traded fund
EU	European Union
EUR	euro
EURIBOR	Euro Interbank Offered Rate
EVE	economic value of equity
EY	Ernst & Young Ltd
F	
FA	financial advisor
FCA	UK Financial Conduct Authority
FDIC	Federal Deposit Insurance Corporation
FINMA	Swiss Financial Market Supervisory Authority
FMIA	Swiss Financial Market Infrastructure Act
F	
FSB	Financial Stability Board
FTA	Swiss Federal Tax Administration
FVA	funding valuation adjustment
FVOCI	fair value through other comprehensive income
FVTPL	fair value through profit or loss
FX	foreign exchange
G	
GAAP	generally accepted accounting principles
GBP	pound sterling
GCRG	Group Compliance, Regulatory & Governance
GDP	gross domestic product
GEB	Group Executive Board
GHG	greenhouse gas
GIA	Group Internal Audit
GRI	Global Reporting Initiative
G-SIB	global systemically important bank
H	
HQLA	high-quality liquid assets
I	
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IBOR	interbank offered rate
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
IRB	internal ratings-based
IRRBB	interest rate risk in the banking book
ISDA	International Swaps and Derivatives Association
ISIN	International Securities Identification Number

Abbreviations frequently used in our financial reports (continued)

K	
KRT	Key Risk Taker
L	
LAS	liquidity-adjusted stress
LCR	liquidity coverage ratio
LGD	loss given default
LIBOR	London Interbank Offered Rate
LLC	limited liability company
LoD	lines of defense
LRD	leverage ratio denominator
LTIP	Long-Term Incentive Plan
LTV	loan-to-value
M	
M&A	mergers and acquisitions
MRT	Material Risk Taker
N	
NII	net interest income
NSFR	net stable funding ratio
NYSE	New York Stock Exchange
O	
OCA	own credit adjustment
OCI	other comprehensive income
OECD	Organisation for Economic Co-operation and Development
OTC	over-the-counter
P	
PD	probability of default
PIT	point in time
P&L	profit or loss
POCI	purchased or originated credit-impaired
Q	
QCCP	Qualifying central counterparty
R	
RBC	risk-based capital
RbM	risk-based monitoring
REIT	real estate investment trust
RMBS	residential mortgage-backed securities
RniV	risks not in VaR
RoCET1	return on CET1 capital
RoU	right-of-use
rTSR	relative total shareholder return
RWA	risk-weighted assets
S	
SA	standardized approach or société anonyme
SA-CCR	standardized approach for counterparty credit risk
SAR	Special Administrative Region of the People's Republic of China
SDG	Sustainable Development Goal
SEC	US Securities and Exchange Commission
SFT	securities financing transaction
SI	sustainable investing or sustainable investment
SIBOR	Singapore Interbank Offered Rate
SICR	significant increase in credit risk

SIX	SIX Swiss Exchange
SME	small and medium-sized entities
SMF	Senior Management Function
SNB	Swiss National Bank
SOR	Singapore Swap Offer Rate
SPPI	solely payments of principal and interest
SRB	systemically relevant bank
SRM	specific risk measure
SVaR	stressed value-at-risk
T	
TBTF	too big to fail
TCFD	Task Force on Climate-related Financial Disclosures
TIBOR	Tokyo Interbank Offered Rate
TLAC	total loss-absorbing capacity
TTC	through the cycle
U	
USD	US dollar
V	
VaR	value-at-risk
VAT	value added tax

This is a general list of the abbreviations frequently used in our financial reporting. Not all of the listed abbreviations may appear in this particular report.

Information sources

Reporting publications

Annual publications

Annual Report: Published in English, this single-volume report provides descriptions of: our Group strategy and performance; the strategy and performance of the business divisions and Group Functions; risk, treasury and capital management; corporate governance, corporate responsibility and our compensation framework, including information about compensation for the Board of Directors and the Group Executive Board members; and financial information, including the financial statements.

“Auszug aus dem Geschäftsbericht”: This publication provides a German translation of selected sections of our Annual Report.

Compensation Report: This report discusses our compensation framework and provides information about compensation for the Board of Directors and the Group Executive Board members. It is available in English and German (*“Vergütungsbericht”*) and represents a component of the Annual Report.

Sustainability Report: Published in English, our Sustainability Report provides disclosures on environmental, social and governance topics related to UBS Group.

Diversity, Equity and Inclusion Report: This report details our DE&I priority areas of focus, our strategic goals and our approach to achieving them at UBS.

Quarterly publications

Quarterly financial report: This report provides an update on our performance and strategy (where applicable) for the respective quarter. It is available in English.

The annual and quarterly publications are available in .pdf and online formats at ubs.com/investors, under “Financial information.” Starting with our Annual Report 2022, we no longer provide printed copies, in any language, of the aforementioned annual publications.

Other information

Website

The “Investor Relations” website at ubs.com/investors provides the following information about UBS: results-related news releases; financial information, including results-related filings with the US Securities and Exchange Commission (the SEC); information for shareholders, including UBS share price charts, as well as data and dividend information, and for bondholders; our corporate calendar; and presentations by management for investors and financial analysts. Information is available online in English, with some information also available in German.

Results presentations

Our quarterly results presentations are webcast live. Recordings of most presentations can be downloaded from ubs.com/presentations.

Messaging service

Email alerts to news about UBS can be subscribed for under “UBS News Alert” at ubs.com/global/en/investor-relations/contact/investor-services.html. Messages are sent in English, German, French or Italian, with an option to select theme preferences for such alerts.

Form 20-F and other submissions to the US Securities and Exchange Commission

We file periodic reports and submit other information about UBS to the SEC. Principal among these filings is the annual report on Form 20-F, filed pursuant to the US Securities Exchange Act of 1934. The filing of Form 20-F is structured as a wraparound document. Most sections of the filing can be satisfied by referring to the combined UBS Group AG and UBS AG Annual Report. However, there is a small amount of additional information in Form 20-F that is not presented elsewhere and is particularly targeted at readers in the US. Readers are encouraged to refer to this additional disclosure. Any document that we file with the SEC is available on the SEC’s website: sec.gov. Refer to ubs.com/investors for more information.



Cautionary Statement Regarding Forward-Looking Statements | This report contains statements that constitute “forward-looking statements,” including but not limited to management’s outlook for UBS’s financial performance, statements relating to the anticipated effect of transactions and strategic initiatives on UBS’s business and future development and goals or intentions to achieve climate, sustainability and other social objectives. While these forward-looking statements represent UBS’s judgments, expectations and objectives concerning the matters described, a number of risks, uncertainties and other important factors could cause actual developments and results to differ materially from UBS’s expectations. The Russia–Ukraine war has led to heightened volatility across global markets, exacerbated global inflation, and slowed global growth. In addition, the war has caused significant population displacement, and if the conflict continues or escalates, the scale of disruption will increase and continue to cause shortages of vital commodities, including energy shortages and food insecurity, and may lead to recessions in OECD economies. The coordinated sanctions on Russia and Belarus, and Russian and Belarusian entities and nationals, and the uncertainty as to whether the war will widen and intensify, may have significant adverse effects on the market and macroeconomic conditions, including in ways that cannot be anticipated. This creates significantly greater uncertainty about forward-looking statements. In addition, turmoil in the banking industry has increased and, at the urging of Swiss authorities, UBS has announced historic plans to merge with another global systemically important bank in Switzerland. The transaction creates considerable integration risk. Other factors that may affect our performance and ability to achieve our plans, outlook and other objectives also include, but are not limited to: (i) the degree to which UBS is successful in the ongoing execution of its strategic plans, including its cost reduction and efficiency initiatives and its ability to manage its levels of risk-weighted assets (RWA) and leverage ratio denominator (LRD), liquidity coverage ratio and other financial resources, including changes in RWA assets and liabilities arising from higher market volatility; (ii) the degree to which UBS is successful in implementing changes to its businesses to meet changing market, regulatory and other conditions; (iii) increased inflation and interest rate volatility in major markets; (iv) developments in the macroeconomic climate and in the markets in which UBS operates or to which it is exposed, including movements in securities prices or liquidity, credit spreads, currency exchange rates, deterioration or slow recovery in residential and commercial real estate markets, the effects of economic conditions, including increasing inflationary pressures, market developments, increasing geopolitical tensions, and changes to national trade policies on the financial position or creditworthiness of UBS’s clients and counterparties, as well as on client sentiment and levels of activity, including the COVID-19 pandemic and the measures taken to manage it, which have had and may also continue to have a significant adverse effect on global and regional economic activity, including disruptions to global supply chains and labor market displacements; (v) changes in the availability of capital and funding, including any adverse changes in UBS’s credit spreads and credit ratings of UBS, Credit Suisse, sovereign issuers, structured credit products or credit-related exposures, as well as availability and cost of funding to meet requirements for debt eligible for total loss-absorbing capacity (TLAC); (vi) changes in central bank policies or the implementation of financial legislation and regulation in Switzerland, the US, the UK, the European Union and other financial centers that have imposed, or resulted in, or may do so in the future, more stringent or entity-specific capital, TLAC, leverage ratio, net stable funding ratio, liquidity and funding requirements, heightened operational resilience requirements, incremental tax requirements, additional levies, limitations on permitted activities, constraints on remuneration, constraints on transfers of capital and liquidity and sharing of operational costs across the Group or other measures, and the effect these will or would have on UBS’s business activities; (vii) UBS’s ability to successfully implement resolvability and related regulatory requirements and the potential need to make further changes to the legal structure or booking model of UBS in response to legal and regulatory requirements, or other developments; (viii) UBS’s ability to maintain and improve its systems and controls for complying with sanctions in a timely manner and for the detection and prevention of money laundering to meet evolving regulatory requirements and expectations, in particular in current geopolitical turmoil; (ix) the uncertainty arising from domestic stresses in certain major economies; (x) changes in UBS’s competitive position, including whether differences in regulatory capital and other requirements among the major financial centers adversely affect UBS’s ability to compete in certain lines of business; (xi) changes in the standards of conduct applicable to our businesses that may result from new regulations or new enforcement of existing standards, including measures to impose new and enhanced duties when interacting with customers and in the execution and handling of customer transactions; (xii) the liability to which UBS may be exposed, or possible constraints or sanctions that regulatory authorities might impose on UBS, due to litigation, contractual claims and regulatory investigations, including the potential for disqualification from certain businesses, potentially large fines or monetary penalties, or the loss of licenses or privileges as a result of regulatory or other governmental sanctions, as well as the effect that litigation, regulatory and similar matters have on the operational risk component of our RWA, as well as the amount of capital available for return to shareholders; (xiii) the effects on UBS’s business, in particular cross-border banking, of sanctions, tax or regulatory developments and of possible changes in UBS’s policies and practices; (xiv) UBS’s ability to retain and attract the employees necessary to generate revenues and to manage, support and control its businesses, which may be affected by competitive factors; (xv) changes in accounting or tax standards or policies, and determinations or interpretations affecting the recognition of gain or loss, the valuation of goodwill, the recognition of deferred tax assets and other matters; (xvi) UBS’s ability to implement new technologies and business methods, including digital services and technologies, and ability to successfully compete with both existing and new financial service providers, some of which may not be regulated to the same extent; (xvii) limitations on the effectiveness of UBS’s internal processes for risk management, risk control, measurement and modeling, and of financial models generally; (xviii) the occurrence of operational failures, such as fraud, misconduct, unauthorized trading, financial crime, cyberattacks, data leakage and systems failures, the risk of which is increased with cyberattack threats from nation states; (xix) restrictions on the ability of UBS Group AG to make payments or distributions, including due to restrictions on the ability of its subsidiaries to make loans or distributions, directly or indirectly, or, in the case of financial difficulties, due to the exercise by FINMA or the regulators of UBS’s operations in other countries of their broad statutory powers in relation to protective measures, restructuring and liquidation proceedings; (xx) the degree to which changes in regulation, capital or legal structure, financial results or other factors may affect UBS’s ability to maintain its stated capital return objective; (xxi) uncertainty over the scope of actions that may be required by UBS, governments and others for UBS to achieve goals relating to climate, environmental and social matters, as well as the evolving nature of underlying science and industry and the possibility of conflict between different governmental standards and regulatory regimes; (xxii) the ability of UBS to access capital markets; (xxiii) the ability of UBS to successfully recover from a disaster or other business continuity problem due to a hurricane, flood, earthquake, terrorist attack, war, conflict (e.g., the Russia–Ukraine war), pandemic, security breach, cyberattack, power loss, telecommunications failure or other natural or man-made event, including the ability to function remotely during long-term disruptions such as the COVID-19 (coronavirus) pandemic; (xxiv) the level of success in the absorption of Credit Suisse, in the integration of the two groups and their businesses, and in the execution of the planned strategy regarding cost reduction and divestment of any non-core assets, the existing assets and liabilities currently existing in the Credit Suisse group (which is expected to become part of UBS), the level of resulting impairments and write-downs, the effect of the consummation of the integration on the operational results, share price and credit rating of UBS – delays, difficulties, or failure in closing the transaction may cause market disruption and challenges for UBS to maintain business, contractual and operational relationships; and (xxv) the effect that these or other factors or unanticipated events, including media reports and speculations, may have on our reputation and the additional consequences that this may have on our business and performance. The sequence in which the factors above are presented is not indicative of their likelihood of occurrence or the potential magnitude of their consequences. Our business and financial performance could be affected by other factors identified in our past and future filings and reports, including those filed with the US Securities and Exchange Commission (the SEC). More detailed information about those factors is set forth in documents furnished by UBS and filings made by UBS with the SEC, including UBS’s Annual Report on Form 20-F for the year ended 31 December 2022. UBS is not under any obligation to (and expressly disclaims any obligation to) update or alter its forward-looking statements, whether as a result of new information, future events, or otherwise.

Rounding | Numbers presented throughout this report may not add up precisely to the totals provided in the tables and text. Percentages and percent changes disclosed in text and tables are calculated on the basis of unrounded figures. Absolute changes between reporting periods disclosed in the text, which can be derived from numbers presented in related tables, are calculated on a rounded basis.

Tables | Within tables, blank fields generally indicate non-applicability or that presentation of any content would not be meaningful, or that information is not available as of the relevant date or for the relevant period. Zero values generally indicate that the respective figure is zero on an actual or rounded basis. Values that are zero on a rounded basis can be either negative or positive on an actual basis.

UBS Group AG
P.O. Box
CH-8098 Zurich

ubs.com



This Form 6-K is hereby incorporated by reference into (1) each of the registration statements of UBS AG on Form F-3 (Registration Number 333-263376), and of UBS Group AG on Form S-8 (Registration Numbers 333-200634; 333-200635; 333-200641; 333-200665; 333-215254; 333-215255; 333-228653; 333-230312; and 333-249143), and into each prospectus outstanding under any of the foregoing registration statements, (2) any outstanding offering circular or similar document issued or authorized by UBS AG that incorporates by reference any Forms 6-K of UBS AG that are incorporated into its registration statements filed with the SEC, and (3) the base prospectus of Corporate Asset Backed Corporation (“CABCO”) dated June 23, 2004 (Registration Number 333-111572), the Form 8-K of CABCO filed and dated June 23, 2004 (SEC File Number 001-13444), and the Prospectus Supplements relating to the CABCO Series 2004-101 Trust dated May 10, 2004 and May 17, 2004 (Registration Number 033-91744 and 033-91744-05).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrants have duly caused this report to be signed on their behalf by the undersigned, thereunto duly authorized.

UBS Group AG

By: /s/ Sergio P. Ermotti
Name: Sergio P. Ermotti
Title: Group Chief Executive Officer

By: /s/ Sarah Youngwood
Name: Sarah Youngwood
Title: Group Chief Financial Officer

By: /s/ Christopher Castello
Name: Christopher Castello
Title: Group Controller and
Chief Accounting Officer

UBS AG

By: /s/ Sergio P. Ermotti
Name: Sergio P. Ermotti
Title: President of the Executive Board

By: /s/ Sarah Youngwood
Name: Sarah Youngwood
Title: Chief Financial Officer

By: /s/ Christopher Castello
Name: Christopher Castello
Title: Controller and Chief Accounting Officer

Date: April 25, 2023

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER

**PURSUANT TO RULE 13a-16 OR 15d-16 UNDER
THE SECURITIES EXCHANGE ACT OF 1934**

Date: May 9, 2023

UBS Group AG

Commission File Number: 1-36764

UBS AG

Commission File Number: 1-15060

(Registrants' Names)

Bahnhofstrasse 45, Zurich, Switzerland, and
Aeschenvorstadt 1, Basel, Switzerland
(Address of principal executive offices)

Indicate by check mark whether the registrants file or will file annual reports under cover of
Form 20-F or Form 40-F.

Form 20-F

Form 40-F

This Form 6-K consists of the consists of the news release which appear immediately following this page.



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9 May 2023

News Release

Ad hoc announcement pursuant to Article 53 of the SIX Exchange Regulation Listing Rules

UBS announces new operating model and leadership team

- **Credit Suisse AG to operate alongside UBS AG and its business divisions, functions and regions under UBS Group AG**
- **CS CEO Ulrich Körner to join UBS Group Executive Board at close**
- **Todd Tuckner to succeed Sarah Youngwood as Chief Financial Officer at close**
- **Beatriz Martin Jimenez named Head Non-Core and Legacy and President EMEA Region**
- **Michelle Beraux named Group Integration Officer**
- **Stefan Seiler named Group Head Human Resources and Corporate Services**
- **All five becoming members of the UBS Group Executive Board**

Zurich, 9 May 2023 – Following the recent announcement of the planned acquisition of Credit Suisse, UBS outlines its new operating model and leadership team, an important milestone in the combination of the two firms.

UBS anticipates that the legal close will take place in the next few weeks. At this time, Credit Suisse Group AG (CS) will be merged into UBS Group AG (UBS) and the combined entity will operate as a consolidated banking group. UBS AG and Credit Suisse AG will continue to operate independently for the foreseeable future and UBS will carry out the integration in a phased approach.

UBS Group CEO Sergio P. Ermotti comments: “This is a pivotal moment for UBS, Credit Suisse and the entire banking industry. Together we will solidify and represent the Swiss model for finance around the world, one that is capital-light, less reliant on taking risk and anchored by stability and high-touch service. This transaction will allow us to offer attractive returns to our shareholders and give us capacity to further invest and grow. With the new operating model and leadership team, UBS is well-equipped to build on its existing strength and the successes of the past decade. The integration of the businesses and legal entities will take time. But adding Credit Suisse to UBS’s highly capital-accretive business model, diversified revenue streams, disciplined risk management and balance sheet for all seasons will benefit our clients, employees, investors, the economies we serve and the wider financial system.”

At the time of legal close, the following governance will apply:

- UBS Group AG will initially manage the two separate parent companies – UBS AG and Credit Suisse AG. Each institution will continue to have its own subsidiaries and branches, serve its clients, and deal with counterparties.
- The UBS Group Board of Directors and the UBS Group Executive Board will hold overall responsibility for the consolidated group.
- Pending further integration, Credit Suisse AG will continue to rely on its established governance and risk control frameworks, though some new policies will be put in place to ensure that UBS Group has effective oversight.



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Operating model and Group Executive Board

The combined firm will operate with five business divisions, seven functions and four regions, and in addition Credit Suisse AG. Each will be represented by a Group Executive Board member, all of whom will report to Group CEO Sergio P. Ermotti.

Ulrich Körner, as Credit Suisse AG CEO, will become a member of the UBS Group Executive Board upon transaction close. With his knowledge of both organizations, he will be responsible for ensuring Credit Suisse's operational continuity and client focus, while supporting the integration process.

Divisions

- **Iqbal Khan** will remain President Global Wealth Management
- **Rob Karofsky** will remain President Investment Bank
- **Sabine Keller-Busse** will remain President Personal & Corporate Banking and President Switzerland
- **Suni Harford** will remain President Asset Management and Lead for Sustainability & Impact
- **Beatriz Martin Jimenez** will become Head Non-Core and Legacy and President EMEA. She will remain UBS Chief Executive for the UK and will continue in her role as Group Treasurer until a successor is named. With her background in our Investment Bank and as Group Treasurer, as well as her restructuring experience and knowledge of the UK market, she is ideally positioned to lead this work.

Functions

- **Todd Tuckner** is appointed Group Chief Financial Officer. He will become a member of the Group Executive Board with immediate effect and take on the role of CFO at close of the acquisition. Having joined UBS in 2004, Todd Tuckner is currently CFO and Head Business Performance and Risk Management for Global Wealth Management and has held various leadership roles across Finance in the US and Switzerland. He will succeed **Sarah Youngwood**, who has decided to leave the firm after the transaction closes. Since joining UBS in 2022, Sarah has helped put UBS in the financial position necessary to make this acquisition. We thank Sarah for her contribution and wish her well for the future.
- **Michelle Breaux** will be Group Integration Officer. She has spent nearly 23 years at UBS and has held various leadership roles across the firm. Michelle Breaux served as Chief Operating Officer and Head of Human Resources for the Investment Bank, led multiple firm-wide transformation projects and, most recently, was Chief Operating Officer and UK Country Head of UBS's Asset Management business.
- **Mike Dargan** will be Group Chief Operations and Technology Officer
- **Stefan Seiler** will be Group Head Human Resources and Corporate Services. In this role, he will bring Human Resources and Corporate Services closer to ensure an effective and efficient alignment of employees, real estate and vendor management strategies. Having joined UBS in 2011, Stefan Seiler became Group Head of Human Resources in 2018. Previously, he was Head of Human Resources for Region Switzerland and Group Functions, and Head Talent and Recruiting.
- **Christian Bluhm** will remain Group Chief Risk Officer
- **Barbara Levi** will remain Group General Counsel
- **Markus Ronner** will remain Group Chief Compliance and Governance Officer

Upon transaction close, all Credit Suisse Executive Board members and permanent guests who are also division and function heads will report to both their respective UBS Executive Board member and Ulrich Körner. This will ensure that Credit Suisse remains accountable for its day-to-day operations, while facilitating the integration of the respective areas into UBS over time. As previously announced, UBS will evaluate all options for Credit Suisse's Swiss business and will communicate further on this matter in the coming months.



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Regions

- **Naureen Hassan** will remain President Americas
- **Sabine Keller-Busse** will remain President Switzerland
- **Edmund Koh** will remain President Asia-Pacific
- **Beatriz Martin Jimenez** will become President EMEA

UBS is confident that it has the right operating model and leadership team for a successful integration. It is committed to providing regular updates on the integration process over time.

UBS Group AG

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Media Relations:

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UK: +44-207-567 47 14

Americas: +1-212-882 58 58

APAC: +852-297-1 82 00

www.ubs.com/media

Cautionary Statement Regarding Forward-Looking Statements

This media release contains statements that constitute “forward-looking statements,” including but not limited to management’s outlook for UBS’s financial performance, statements relating to the anticipated effect of transactions and strategic initiatives on UBS’s business and future development and goals or intentions to achieve climate, sustainability and other social objectives. While these forward-looking statements represent UBS’s judgments, expectations and objectives concerning the matters described, a number of risks, uncertainties and other important factors could cause actual developments and results to differ materially from UBS’s expectations. For a discussion of the risks and uncertainties that may affect UBS’s future results please refer to the "Risk Factors" and other sections of UBS’s most recent Annual Report on Form 20-F, quarterly reports and other information furnished to or filed with the US Securities and Exchange Commission on Form 6-K, and the cautionary statement on the last page of this presentation. UBS is not under any obligation to (and expressly disclaims any obligation to) update or alter its forward-looking statements, whether as a result of new information, future events, or otherwise.

This Form 6-K is hereby incorporated by reference into (1) each of the registration statements of UBS AG on Form F-3 (Registration Number 333-263376), and of UBS Group AG on Form S-8 (Registration Numbers 333-200634; 333-200635; 333-200641; 333-200665; 333-215254; 333-215255; 333-228653; 333-230312; and 333-249143), and into each prospectus outstanding under any of the foregoing registration statements, (2) any outstanding offering circular or similar document issued or authorized by UBS AG that incorporates by reference any Forms 6-K of UBS AG that are incorporated into its registration statements filed with the SEC, and (3) the base prospectus of Corporate Asset Backed Corporation (“CABCO”) dated June 23, 2004 (Registration Number 333-111572), the Form 8-K of CABCO filed and dated June 23, 2004 (SEC File Number 001-13444), and the Prospectus Supplements relating to the CABCO Series 2004-101 Trust dated May 10, 2004 and May 17, 2004 (Registration Number 033-91744 and 033-91744-05).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrants have duly caused this report to be signed on their behalf by the undersigned, thereunto duly authorized.

UBS Group AG

By: /s/ David Kelly

Name: David Kelly

Title: Managing Director

By: /s/ Ella Campi

Name: Ella Campi

Title: Executive Director

UBS AG

By: /s/ David Kelly

Name: David Kelly

Title: Managing Director

By: /s/ Ella Campi

Name: Ella Campi

Title: Executive Director

Date: May 9, 2023

**ANNEX C: CREDIT SUISSE'S ANNUAL REPORT ON FORM 20-F FOR THE FISCAL YEAR ENDED
DECEMBER 31, 2022 FILED WITH THE SEC ON MARCH 14, 2023**

C-1

As filed with the Securities and Exchange Commission on March 14, 2023

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

Form 20-F

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934
- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
- SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report _____

For the transition period from _____ to _____

Commission file number: 001-15244

Credit Suisse Group AG

(Exact name of Registrant as specified in its charter)

Canton of Zurich, Switzerland
(Jurisdiction of incorporation or organization)

Paradeplatz 8, 8001 Zurich, Switzerland
(Address of principal executive offices)

Dixit Joshi
Chief Financial Officer
Paradeplatz 8, 8001 Zurich, Switzerland
dixit.joshi@credit-suisse.com
Telephone: +41 44 333 1111

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Commission file number: 001-33434

Credit Suisse AG

(Exact name of Registrant as specified in its charter)

Canton of Zurich, Switzerland
(Jurisdiction of incorporation or organization)

Paradeplatz 8, 8001 Zurich, Switzerland
(Address of principal executive offices)

Dixit Joshi
Chief Financial Officer
Paradeplatz 8, 8001 Zurich, Switzerland
dixit.joshi@credit-suisse.com
Telephone: +41 44 333 1111

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

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Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class of securities	Trading Symbol(s)	Name of each exchange on which registered
Credit Suisse Group AG		
American Depositary Shares each representing one Share	CS	New York Stock Exchange
Shares par value CHF 0.04 *	CSGN*	New York Stock Exchange *
Credit Suisse AG		
Credit Suisse S&P MLP Index ETNs due December 4, 2034 Linked to the S&P MLP Index	MLPO	NYSE Arca
Credit Suisse X-Links® Gold Shares Covered Call ETNs due February 2, 2033	GLDI	The Nasdaq Stock Market
Credit Suisse X-Links® Silver Shares Covered Call ETNs due April 21, 2033	SLVO	The Nasdaq Stock Market
Credit Suisse X-Links® Crude Oil Shares Covered Call ETNs due April 24, 2037	USOI	The Nasdaq Stock Market

* Not for trading, but only in connection with the registration of the American Depositary Shares

Securities registered or to be registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of December 31, 2022: 3,941,250,081 shares of Credit Suisse Group AG

Indicate by check mark if the Registrants are well-known seasoned issuers, as defined in Rule 405 of the Securities Act. Yes No

If this report is an annual or transition report, indicate by check mark if the Registrants are not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Indicate by check mark whether the Registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrants were required to file such reports) and (2) have been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the Registrants have submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrants were required to submit such files). Yes No

Indicate by check mark whether the Registrants are large accelerated filers, accelerated filers, non-accelerated filers, or emerging growth companies. See definitions of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Emerging growth company	<input type="checkbox"/>

If emerging growth companies that prepare their financial statements in accordance with U.S. GAAP, indicate by check mark if the Registrants have elected not to use the extended transition period for complying with any new or revised financial accounting standards † provided pursuant to Section 13(a) of the Exchange Act.

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the Registrants have filed reports on and attestations to their management's assessment of the effectiveness of their internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the Registrants included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the Registrants' executive officers during the relevant recovery period pursuant to § 240.10D-1(b).

Indicate by check mark which basis of accounting the Registrants have used to prepare the financial statements included in this filing:

U.S. GAAP	<input checked="" type="checkbox"/>	International Financial Reporting Standards as issued by the International Accounting Standards Board	<input type="checkbox"/>	Other	<input type="checkbox"/>
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If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the Registrants have elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the Registrants are shell companies (as defined in Rule 12b-2 of the Exchange Act) Yes No

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Definitions

For the purposes of this Form 20-F and the attached Annual Report 2022, unless the context otherwise requires, the terms “Credit Suisse Group,” “Credit Suisse,” the “Group,” “we,” “us” and “our” mean Credit Suisse Group AG and its consolidated subsidiaries. The business of Credit Suisse AG, the direct bank subsidiary of the Group, is substantially similar to the Group, and we use these terms to refer to both when the subject is the same or substantially similar. We use the term the “Bank” when we are referring only to Credit Suisse AG and its consolidated subsidiaries.

Abbreviations and selected terms are explained in the List of abbreviations and the Glossary in the back of the Annual Report 2022.

Sources

Throughout this Form 20-F and the attached Annual Report 2022, we describe the position and ranking of our various businesses in certain industry and geographic markets. The sources for such descriptions come from a variety of conventional publications generally accepted as relevant business indicators by members of the financial services industry. These sources include: Standard & Poor’s, Dealogic, Institutional Investor, Lipper, Moody’s Investors Service and Fitch Ratings.

Cautionary statement regarding forward-looking information

For Credit Suisse and the Bank, please see the Cautionary statement regarding forward-looking information on the inside page of the back cover of the attached Annual Report 2022.

Explanatory note

For the avoidance of doubt, the information appearing on pages 2, 4 to 8, 220 to 222 and A-3 to A-11 are not included in Credit Suisse’s and the Bank’s Form 20-F for the fiscal year ended December 31, 2022.

Part I

Item 1. Identity of directors, senior management and advisers.

Not required because this Form 20-F is filed as an annual report.

Item 2. Offer statistics and expected timetable.

Not required because this Form 20-F is filed as an annual report.

Item 3. Key information.

A — [Reserved]

B — Capitalization and indebtedness.

Not required because this Form 20-F is filed as an annual report.

C — Reasons for the offer and use of proceeds.

Not required because this Form 20-F is filed as an annual report.

D — Risk factors.

For Credit Suisse and the Bank, please see I — Information on the company — Risk factors on pages 40 to 56 of the attached Annual Report 2022.

Item 4. Information on the company.

A — History and development of the company.

For Credit Suisse and the Bank, please see I — Information on the company — Strategy on pages 10 to 13 and IV — Corporate Governance — Overview — Corporate governance framework — Company details on page 174 of the attached Annual Report 2022. In addition, for Credit Suisse, please see Note 3 — Business developments, significant shareholders and subsequent events and Note 4 — Segment information in VI — Consolidated financial statements — Credit Suisse Group on pages 276 to 279 of the attached Annual Report 2022 and, for the Bank, please see Note 3 — Business developments, significant shareholders and subsequent events and Note 4 — Segment information in VIII — Consolidated financial statements — Credit Suisse (Bank) on page 441 of the attached Annual Report 2022. For additional information on Credit Suisse and the Bank, please see Item 10.H of this Form 20-F regarding documents on display.

B — Business overview.

For Credit Suisse and the Bank, please see I — Information on the company — Divisions on pages 14 to 20 of the attached Annual Report 2022, I — Information on the company — Regulation and supervision on pages 21 to 39 and the “Sources” section located inside this Form 20-F cover. In addition, for Credit Suisse, please see Note 4 — Segment information in VI — Consolidated financial statements — Credit Suisse Group on pages 278 to 279 of the attached Annual Report 2022 and, for the Bank, please see Note 4 — Segment information in VIII — Consolidated financial statements — Credit Suisse (Bank) on page 441 of the attached Annual Report 2022.

C — Organizational structure.

For Credit Suisse and the Bank, please see I — Information on the company — Strategy on pages 10 to 13 and II — Operating and financial review — Credit Suisse — Group and Bank differences on page 73 of the attached Annual Report 2022. For a list of Credit Suisse’s significant subsidiaries, please see Note 41 — Significant subsidiaries and equity method investments in VI — Consolidated financial statements — Credit Suisse Group on pages 400 to 402 of the attached Annual Report 2022 and, for a list of the Bank’s significant subsidiaries, please see Note 40 — Significant subsidiaries and equity method investments in VIII — Consolidated financial statements — Credit Suisse (Bank) on pages 503 to 504 of the attached Annual Report 2022.

D — Property, plant and equipment.

For Credit Suisse and the Bank, please see X — Additional information — Other information — Property and equipment on page 569 of the attached Annual Report 2022.

Information required by subpart 1400 of Regulation S-K

For Credit Suisse and the Bank, please see X — Additional information — Statistical information on pages 556 to 563 of the attached Annual Report 2022. In addition, for both Credit Suisse and the Bank, please see III — Treasury, Risk, Balance sheet and Off-balance sheet — Risk management — Risk portfolio analysis — Credit risk — Loans and irrevocable loan commitments on page 155 of the attached Annual Report 2022.

Disclosure pursuant to Section 13(r) of the Securities Exchange Act of 1934

During 2022, Credit Suisse AG processed a small number of de minimis payments related to the operation of Iranian diplomatic missions in Switzerland and related to fees for ministerial government functions such as issuing passports and visas. Processing these payments is permitted under Swiss law, and Credit Suisse AG intends to continue processing such payments. Revenues and profits from these activities are not calculated but would be negligible.

Item 4A. Unresolved staff comments.

None.

Item 5. Operating and financial review and prospects.**A — Operating results.**

For Credit Suisse and the Bank, please see II — Operating and financial review on pages 57 to 104 of the attached Annual Report 2022. In addition, for both Credit Suisse and the Bank, please see I — Information on the company — Regulation and supervision on pages 21 to 39 of the attached Annual Report 2022, III — Treasury, Risk, Balance sheet and Off-balance sheet — Liquidity and funding management — Funding management — Structural interest rate management on page 113 and — Capital management — Foreign exchange exposure on page 130 of the attached Annual Report 2022.

B — Liquidity and capital resources.

For Credit Suisse and the Bank, please see III — Treasury, Risk, Balance sheet and Off-balance sheet — Liquidity and funding management and — Capital management on pages 106 to 131 and III — Treasury, Risk, Balance sheet and Off-balance sheet — Balance sheet and off-balance sheet — Contractual obligations and other commercial commitments on page 168 of the attached Annual Report 2022. In addition, for Credit Suisse, please see Consolidated statements of cash flows in VI — Consolidated financial statements — Credit Suisse Group on pages 264 to 265, Note 26 — Long-term debt in VI — Consolidated financial statements — Credit Suisse Group on pages 309 to 310 and Note 38 — Capital adequacy in VI — Consolidated financial statements — Credit Suisse Group on pages 386 to 387 of the attached Annual Report 2022 and, for the Bank, please see Consolidated statements of cash flows in VIII — Consolidated financial statements — Credit Suisse (Bank) on pages 438 to 439, Note 25 — Long-term debt in VIII — Consolidated financial statements — Credit Suisse (Bank) on page 460 and Note 37 — Capital adequacy in VIII — Consolidated financial statements — Credit Suisse (Bank) on pages 501 to 502 of the attached Annual Report 2022.

C — Research and development, patents and licenses, etc.

Not applicable.

D — Trend information.

For Credit Suisse and the Bank, please see Item 5 .A of this Form 20-F. In addition, for Credit Suisse and the Bank, please see I — Information on the company — Divisions on pages 14 to 20 of the attached Annual Report 2022.

E — Critical accounting estimates.

For Credit Suisse and the Bank, please see II — Operating and financial review — Critical accounting estimates on pages 97 to 104 of the attached Annual Report 2022.

Item 6. Directors, senior management and employees.**A — Directors and senior management.**

For Credit Suisse and the Bank, please see IV — Corporate Governance — Board of Directors, — Board Committees, — Biographies of the Board, — Executive Board and — Biographies of the Executive Board members on pages 183 to 214 of the attached Annual Report 2022.

B — Compensation.

For Credit Suisse and the Bank, please see V — Compensation on pages 223 to 254 of the attached Annual Report 2022. In addition, for Credit Suisse, please see Note 10 — Compensation and benefits in VI — Consolidated financial statements — Credit Suisse Group on page 281, Note 30 — Employee deferred compensation in VI — Consolidated financial statements — Credit Suisse Group on pages 322 to 326, Note 32 — Pension and other post-retirement benefits in VI — Consolidated financial statements — Credit Suisse Group on pages 329 to 337, Note 7 — Personnel expenses in VII — Parent company financial statements — Credit Suisse Group on page 419 and Note 25 — Shareholdings in VII — Parent company financial statements — Credit Suisse Group on pages 426 to 427 of the attached Annual Report 2022. For the Bank, please see Note 10 — Compensation and benefits in VIII — Consolidated financial statements — Credit Suisse (Bank) on page 443, Note 29 — Employee deferred compensation in VIII — Consolidated financial statements — Credit Suisse (Bank) on pages 468 to 470, Note 31 — Pension and other post-retirement benefits in VIII — Consolidated financial statements — Credit Suisse (Bank) on pages 472 to 477, Note 6 — Personnel expenses in IX — Parent company financial statements — Credit Suisse (Bank) on page 529, Note 17 — Pension plans in IX — Parent company financial statements — Credit Suisse (Bank) on pages 537 to 538 and Note 24 — Shareholdings of the Board of Directors, Executive Board and employees and information on compensation plans in IX — Parent company financial statements — Credit Suisse (Bank) on pages 549 to 551 of the attached Annual Report 2022.

C — Board practices.

For Credit Suisse and the Bank, please see IV — Corporate Governance on pages 169 to 218 of the attached Annual Report 2022.

D — Employees.

For Credit Suisse and the Bank, please see IV — Corporate Governance — Overview — Corporate Governance framework — Employee relations on page 176 of the attached Annual Report 2022. In addition, for both Credit Suisse and the Bank, please see II — Operating and financial review — Credit Suisse — Employees on page 64 of the attached Annual Report 2022.

E — Share ownership.

For Credit Suisse and the Bank, please see V — Compensation on pages 223 to 254 of the attached Annual Report 2022. In addition, for Credit Suisse, please see Note 30 — Employee deferred compensation in VI — Consolidated financial statements — Credit Suisse Group on pages 322 to 326, and Note 25 — Shareholdings in VII — Parent company financial statements — Credit Suisse Group on pages 426 to 427 of the attached Annual Report 2022. For the Bank, please see Note 29 — Employee deferred compensation in VIII — Consolidated financial statements — Credit Suisse (Bank) on pages 468 to 470, and Note 24 — Shareholdings of the Board of Directors, Executive Board and employees and information on compensation plans in IX — Parent company financial statements — Credit Suisse (Bank) on pages 549 to 551 of the attached Annual Report 2022.

F — Disclosure of a registrant's action to recover erroneously awarded compensation.

Not applicable .

Item 7. Major shareholders and related party transactions.

A — Major shareholders.

For Credit Suisse, please see IV — Corporate Governance — Shareholders on pages 177 to 182 of the attached Annual Report 2022. In addition, for Credit Suisse, please see Note 3 — Business developments, significant shareholders and subsequent events in VI — Consolidated financial statements — Credit Suisse Group on pages 276 to 277, Note 18 — Credit Suisse Group shares held by subsidiaries in VII — Parent company financial statements — Credit Suisse Group on page 424, Note 19 — Purchases and sales of treasury shares in VII — Parent company financial statements — Credit Suisse Group on page 424 and Note 20 — Significant shareholders in VII — Parent company financial statements — Credit Suisse Group on page 424 of the attached Annual Report 2022. Credit Suisse's major shareholders do not have different voting rights. The Bank has 4,399,680,200 shares outstanding and is a wholly owned subsidiary of Credit Suisse. See Note 23 — Significant shareholders and groups of shareholders in IX — Parent company financial statements — Credit Suisse (Bank) on page 548 of the attached Annual Report 2022.

B — Related party transactions.

For Credit Suisse and the Bank, please see V — Compensation on pages 223 to 254 and IV — Corporate Governance — Additional information — Banking relationships with Board and Executive Board members and related party transactions on page 216 of the attached Annual Report 2022. In addition, for Credit Suisse, please see Note 31 — Related parties in VI — Consolidated financial statements — Credit Suisse Group on pages 327 to 328 and Note 23 — Assets and liabilities with related parties in VII — Parent company financial statements — Credit Suisse Group on page 425 of the attached Annual Report 2022. For the Bank, please see Note 30 — Related parties in VIII — Consolidated financial statements — Credit Suisse (Bank) on page 471 and Note 25 — Amounts receivable

from and amounts payable to related parties in IX — Parent company financial statements — Credit Suisse (Bank) on page 551 of the attached Annual Report 2022.

C — Interests of experts and counsel.

Not applicable because this Form 20-F is filed as an annual report.

Item 8. Financial information.

A — Consolidated statements and other financial information.

Please see Item 18 of this Form 20-F.

For a description of Credit Suisse's legal and arbitration proceedings, please see Note 40 — Litigation in VI — Consolidated financial statements — Credit Suisse Group on pages 389 to 400 of the attached Annual Report 2022. For a description of the Bank's legal and arbitration proceedings, please see Note 39 — Litigation in VIII — Consolidated financial statements — Credit Suisse (Bank) on page 502 of the attached Annual Report 2022.

For a description of Credit Suisse's policy on dividend distributions, please see III — Treasury, Risk, Balance sheet and Off-balance sheet — Capital management — Dividends and dividend policy on page 131 of the attached Annual Report 2022.

B — Significant changes.

None.

Item 9. The offer and listing.

A — Offer and listing details, C — Markets.

For information regarding the price history of Credit Suisse Group shares and the stock exchanges and other regulated markets on which they are listed or traded, please see X — Additional information — Other information — Listing details on page 569 of the attached Annual Report 2022. Shares of the Bank are not listed.

B — Plan of distribution, D — Selling shareholders, E — Dilution, F — Expenses of the issue.

Not required because this Form 20-F is filed as an annual report.

Item 10. Additional information.

A — Share capital.

Not required because this Form 20-F is filed as an annual report.

B — Memorandum and Articles of Association.

For Credit Suisse, please see IV — Corporate Governance — Overview — Corporate Governance framework, — Shareholders and — Board of Directors on pages 172 to 206 of the attached Annual Report 2022. In addition, for Credit Suisse, please see X — Additional information — Other information — Exchange controls and — American Depositary Shares on page 564 of the attached Annual Report 2022. Shares of the Bank are not listed.

C — Material contracts.

Neither Credit Suisse nor the Bank has any contract that would constitute a material contract for the two years immediately preceding the date of this Form 20-F.

D — Exchange controls.

For Credit Suisse and the Bank, please see X — Additional information — Other information — Exchange controls on page 564 of the attached Annual Report 2022.

E — Taxation.

For Credit Suisse, please see X — Additional information — Other information — Taxation on pages 564 to 568 of the attached Annual Report 2022. The Bank does not have any public shareholders.

F — Dividends and paying agents.

Not required because this Form 20-F is filed as an annual report.

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G — Statement by experts.

Not required because this Form 20-F is filed as an annual report.

H — Documents on display.

Credit Suisse and the Bank file annual reports on Form 20-F and furnish or file quarterly and other reports on Form 6-K and other information with the SEC pursuant to the requirements of the Securities Exchange Act of 1934, as amended. These materials are available to the public over the Internet at the SEC's website at www.sec.gov, which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. Further, our reports on Form 20-F, Form 6-K and certain other materials are available on the Credit Suisse website at www.credit-suisse.com. Information contained on our website and apps is not incorporated by reference into this Form 20-F. For the avoidance of doubt, even though there are references in this document to our Sustainability Report that is published on our website, our Sustainability Report does not form part of, and should not be considered incorporated by reference into, this 20-F.

In addition, Credit Suisse's parent company financial statements, together with the notes thereto, are set forth on pages 409 to 428 of the attached Annual Report 2022 and incorporated by reference herein. The Bank's parent company financial statements, together with the notes thereto, are set forth on pages 507 to 554 of the attached Annual Report 2022 and incorporated by reference herein.

I — Subsidiary information.

Not applicable.

J — Annual report to security holders.

Not applicable.

Item 11. Quantitative and qualitative disclosures about market risk.

For Credit Suisse and the Bank, please see I — Information on the company — Risk factors on pages 40 to 56 and III — Treasury, Risk, Balance sheet and Off-balance sheet — Risk management on pages 132 to 165 of the attached Annual Report 2022. In addition, for Credit Suisse, please see Note 33 — Derivatives and hedging activities in VI — Consolidated financial statements — Credit Suisse Group on pages 338 to 344 of the attached Annual Report 2022 and, for the Bank, please see Note 32 — Derivatives and hedging activities in VIII — Consolidated financial statements — Credit Suisse (Bank) on pages 478 to 481 of the attached Annual Report 2022.

Item 12. Description of securities other than equity securities.**A — Debt securities, B — Warrants and rights, C — Other securities.**

Not applicable.

D — American Depositary Shares.

For Credit Suisse, please see IV — Corporate Governance — Additional information — Other information — Fees and charges for holders of ADS on page 218 of the attached Annual Report 2022. Shares of the Bank are not listed.

Part II

Item 13. Defaults, dividend arrearages and delinquencies.

None.

Item 14. Material modifications to the rights of security holders and use of proceeds.

None.

Item 15. Controls and procedures.

For Credit Suisse's management report, please see Controls and procedures in VI – Consolidated financial statements – Credit Suisse Group on page 257 and for the related report of the Group's independent auditors, please see Report of the Independent Registered Public Accounting Firm on pages 258 to 258-III of the attached Annual Report 2022. For the Bank's management report please see Controls and procedures in VIII – Consolidated financial statements – Credit Suisse (Bank) on page 431 and for the related report of the Group's independent auditors, please see Report of the Independent Registered Public Accounting Firm on pages 432 to 432-III of the attached Annual Report 2022.

Item 16. [Reserved]

Item 16A. Audit committee financial expert.

For Credit Suisse and the Bank, please see IV – Corporate Governance – Board of Directors – Board committees – Audit Committee on page 194 of the attached Annual Report 2022.

Item 16B. Code of ethics.

For Credit Suisse and the Bank, please see IV – Corporate Governance – Overview – Corporate governance framework on pages 172 to 176 of the attached Annual Report 2022.

Item 16C. Principal accountant fees and services.

For Credit Suisse and the Bank, please see IV – Corporate Governance – Audit – External audit on page 215 of the attached Annual Report 2022.

Item 16D. Exemptions from the listing standards for audit committee.

None.

Item 16E. Purchases of equity securities by the issuer and affiliated purchasers.

For Credit Suisse, please see III – Treasury, Risk, Balance sheet and Off-balance sheet – Capital management – Share purchases on page 130 of the attached Annual Report 2022 . The Bank does not have any class of equity securities registered pursuant to Section 12 of the Exchange Act.

Item 16F. Change in registrants' certifying accountant.

None.

Item 16G. Corporate governance.

For Credit Suisse, please see IV – Corporate Governance – Additional Information – Other information – Complying with rules and regulations on pages 216 to 217 of the attached Annual Report 2022 . Shares of the Bank are not listed.

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Item 16H. Mine safety disclosure.

None.

Item 16I. Disclosure regarding foreign jurisdictions that prevent inspections.

Not applicable.

Part III

Item 17. Financial statements.

Not applicable.

Item 18. Financial statements.

Credit Suisse's consolidated financial statements, together with the notes thereto and the Report of the Independent Registered Public Accounting Firm thereon, are set forth on pages 255 to 408 of the attached Annual Report 2022 and incorporated by reference herein. The Bank's consolidated financial statements, together with the notes thereto (and any notes or portions thereof in the consolidated financial statements of Credit Suisse Group referred to therein) and the Report of the Independent Registered Public Accounting Firm thereon, are set forth on pages 429 to 506 of the attached Annual Report 2022 and incorporated by reference herein.

Item 19. Exhibits.

- 1.1 Articles of association (Statuten) of Credit Suisse Group AG as of December 7, 2022.
- 1.2 Articles of association (Statuten) of Credit Suisse AG as of September 4, 2014 (incorporated by reference to Exhibit 1.2 of Credit Suisse Group AG's and Credit Suisse AG's annual report on Form 20-F for the year ended December 31, 2014 filed on March 20, 2015).
https://www.sec.gov/Archives/edgar/data/1053092/000137036815000028/a140320ar-ex1_2.htm
- 1.3 Organizational Guidelines and Regulations of Credit Suisse Group AG and Credit Suisse AG as of January 31, 2023.
- 2.1 Pursuant to the requirement of this item, we agree to furnish to the SEC upon request a copy of any instrument defining the rights of holders of long-term debt of us or of our subsidiaries for which consolidated or unconsolidated financial statements are required to be filed.
- 2.2 Description of securities registered pursuant to section 12 of the Securities Exchange Act of 1934.
- 8.1 Significant subsidiaries of Credit Suisse are set forth in Note 41 – Significant subsidiaries and equity method investments in VI – Consolidated financial statements – Credit Suisse Group on pages 400 to 402, and significant subsidiaries of the Bank are set forth in Note 40 – Significant subsidiaries and equity method investments in VIII – Consolidated financial statements – Credit Suisse (Bank) on pages 503 to 504 of the attached Annual Report 2022 and incorporated by reference herein.
- 12.1 Rule 13a-14(a) certification of the Chief Executive Officer of Credit Suisse Group AG and Credit Suisse AG, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 12.2 Rule 13a-14(a) certification of the Chief Financial Officer of Credit Suisse Group AG and Credit Suisse AG, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 13.1 Certifications pursuant to 18 U.S.C. Section 1350, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 for Credit Suisse Group AG and Credit Suisse AG.
- 15.1 Consent of PricewaterhouseCoopers AG, Zurich with respect to Credit Suisse Group AG consolidated financial statements.
- 15.2 Consent of PricewaterhouseCoopers AG, Zurich with respect to Credit Suisse AG consolidated financial statements.
- 101 Interactive Data Files (XBRL-Related Documents).
- 104 Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

SIGNATURES

Each of the registrants hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf .

CREDIT SUISSE GROUP AG

(Registrant)

Date: March 14, 2023

/s/ Ulrich Körner

Name: Ulrich Körner

Title: Chief Executive Officer

/s/ Dixit Joshi

Name: Dixit Joshi

Title: Chief Financial Officer

CREDIT SUISSE AG

(Registrant)

Date: March 14, 2023

/s/ Ulrich Körner

Name: Ulrich Körner

Title: Chief Executive Officer

/s/ Dixit Joshi

Name: Dixit Joshi

Title: Chief Financial Officer

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CREDIT SUISSE 

Annual Report 2022

Credit Suisse Group AG
Credit Suisse AG

Key metrics

	in / end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Credit Suisse (CHF million)					
Net revenues	14,921	22,696	22,389	(34)	1
Provision for credit losses	16	4,205	1,096	(100)	284
Total operating expenses	18,163	19,091	17,826	(5)	7
Income/(loss) before taxes	(3,258)	(600)	3,467	443	—
Net income/(loss) attributable to shareholders	(7,293)	(1,650)	2,669	342	—
Cost/income ratio (%)	121.7	84.1	79.6	—	—
Effective tax rate (%)	(124.2)	(171.0)	23.1	—	—
Basic earnings/(loss) per share (CHF)	(2.55)	(0.63)	1.02	305	—
Diluted earnings/(loss) per share (CHF)	(2.55)	(0.63)	0.99	305	—
Return on equity (%)	(16.1)	(3.8)	5.9	—	—
Return on tangible equity (%)	(17.4)	(4.2)	6.6	—	—
Assets under management and net new assets (CHF billion)					
Assets under management	1,293.6	1,614.0	1,511.9	(19.9)	6.8
Net new assets/(net asset outflows)	(123.2)	30.9	42.0	—	(26.4)
Balance sheet statistics (CHF million)					
Total assets	531,358	755,833	818,965	(30)	(8)
Net loans	264,165	291,686	291,908	(9)	0
Total shareholders' equity	45,129	43,954	42,677	3	3
Tangible shareholders' equity	41,768	40,761	38,014	2	7
Basel III regulatory capital and leverage statistics (%)					
CET1 ratio	14.1	14.4	12.9	—	—
CET1 leverage ratio	5.4	4.3	4.3	—	—
Tier 1 leverage ratio	7.7	6.1	6.3	—	—
Share information					
Shares outstanding (million)	3,941.3	2,569.7	2,406.1	53	7
of which common shares issued	4,002.2	2,650.7	2,447.7	51	8
of which treasury shares	(60.9)	(81.0)	(41.6)	(25)	95
Book value per share (CHF)	11.45	17.10	17.74	(33)	(4)
Tangible book value per share (CHF)	10.60	15.86	15.80	(33)	0
Market capitalization (CHF million)	11,062	23,295	27,904	(53)	(17)
Dividend per share (CHF)	0.05	0.10	0.10	(50)	0
Number of employees (full-time equivalents)					
Number of employees	50,480	50,390	49,190	0	2

See relevant tables and related narratives for additional information on these metrics.

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Credit Suisse Group AG
Credit Suisse AG

Credit Suisse Apps – Available in the App Store and Google Play Store



Credit Suisse Direct

With the Credit Suisse Direct app for smartphones and tablets you have all the advantages of mobile banking at your fingertips – anytime, anywhere. Whether you want to pay bills, transfer account, trade securities, check your credit card details or follow your safe-keeping account in real time or catch up on financial information.



Investor Relations

allows investors, analysts, media and other interested parties to remain up to date with relevant online and offline financial information on Credit Suisse.

For the purposes of this report, unless the context otherwise requires, the terms “Credit Suisse Group”, “Credit Suisse”, the “Group”, “we”, “us” and “our” mean Credit Suisse Group AG and its consolidated subsidiaries. The business of Credit Suisse AG, the direct bank subsidiary of the Group, is substantially similar to the Group, and we use these terms to refer to both when the subject is the same or substantially similar. We use the term the “Bank” when we are referring only to Credit Suisse AG and its consolidated subsidiaries. We use the term the “Bank parent company” when we are referring only to the standalone parent entity Credit Suisse AG. Abbreviations and selected terms are explained in the List of abbreviations and the Glossary in the back of this report. Publications referenced in this report, whether via website links or otherwise, are not incorporated into this report. The English language version of this report is the controlling version. In various tables, use of “–” indicates not meaningful or not applicable.

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Message from the Chairman and the Chief Executive Officer

For Credit Suisse, 2022 was an important year that marked a decisive break from the past and the beginning of our journey to become a simpler, more focused bank built around the needs of our clients. In October, we announced a clear strategy that builds on our core strengths and addresses current challenges, and we have since been executing it at pace. Our strategic, cultural and operational transformation aims to re-establish Credit Suisse as a solid, reliable and trusted partner with a strong value proposition for all our stakeholders.

Dear shareholders, clients and colleagues

We would like to begin by expressing our sincere gratitude to you for the continued loyalty and trust that you have shown Credit Suisse through what was undoubtedly one of the most challenging years in the recent history of our bank.

The need for renewal is clear. In October 2022, we announced a strategic plan to create a new Credit Suisse, centered on our core strengths – our leading Wealth Management and Swiss Bank franchises, with strong capabilities in Asset Management and Markets – and returning to our heritage and cultural values. While our strategic priorities focus on the restructuring of our Investment Bank, the strengthening and reallocation of our capital and the accelerated cost transformation, we are also fundamentally reshaping the bank at a cultural and an operational level.

As we build the new Credit Suisse, we must strike a careful balance between renewal and continuity. While we intend to address the issues we face transparently and expeditiously, we are committed to staying true to the essence of Credit Suisse that has made us a preferred partner to our clients for decades. Credit Suisse's purpose is unchanged and will be rejuvenated: To build lasting value by serving our clients with care and entrepreneurial spirit.

By 2025, we want Credit Suisse to have resilient franchises that are positioned for sustainable and profitable growth, supported by our strong capital position and balance sheet and a right-sized cost base. To achieve these ambitions, we have announced bold and decisive actions that go beyond previous realignments.

Bold and decisive actions

In terms of our strategic transformation, we are radically restructuring the Investment Bank to focus on our strengths and capabilities where we already have a competitive advantage, while exiting or scaling back non-core activities. As such, we plan to focus on those parts of our Markets business going forward with strong connectivity to Wealth Management and our Swiss clients, to offer cross-asset investment products, market access and financing solutions. In addition, we are reviving the CS First Boston brand by creating a leading capital markets and advisory business. This business is expected to have a reduced risk profile, while building on a partnership model to tap the right talent and attract external capital.

Culturally, we want to build on our core values of entrepreneurship, inclusion, meritocracy, partnership, accountability, client focus and trust – values that have shaped the bank since 1856 when it was founded by entrepreneur Alfred Escher. As part of our cultural transformation, we want to ensure that our people act as prudent and professional risk managers at all times, are part of a diverse and inclusive environment and always feel confident to speak up. As one of the milestones in this respect, all our people, including ourselves, completed a dedicated risk culture training during 2022.

At the operational level, we are focusing on right-sizing our cost base through a comprehensive transformation program that goes further and deeper than ever before. We aim to reduce the Group's cost base to approximately CHF 14.5 billion by 2025, to substantially improve long-term efficiency and boost Credit Suisse's overall resilience. Actions already initiated in the fourth quarter of 2022 are expected to represent approximately 80% of the 2023 cost base reduction target of approximately CHF 1.2 billion, with further initiatives underway. While cost reductions are a focal point, growth investments should be protected, and we intend to continue to develop our business to meet the evolving needs of our clients in a rapidly changing world. Ultimately, we want to transform the way we run our bank to ensure we can sustainably build our business at lower costs in the future.

Regarding legacy issues, we have also taken decisive action, as demonstrated by the settlements we have reached relating to our residential mortgage-backed securities, foreign exchange and French legacy cases. Our regulatory remediation program is advancing, and we have rolled out a comprehensive plan to strengthen and improve risk management across the Group, including putting additional measures and safeguards in place.

4 Message from the Chairman and the Chief Executive Officer



Axel Lehmann, Chairman of the Board of Directors (left) and Ulrich Körner, Chief Executive Officer.

Building and maintaining a strong capital base is another key element of our strategic plan. We have already announced a number of measures to provide us with sufficient capital to deliver on our objectives. In November 2022, we announced that we had entered into definitive transaction agreements in relation to the sale of a significant part of our Securitized Product Group (SPG) to Apollo Global Management¹ (Apollo). This transaction involves phased closings with the first and second closing of the transaction with Apollo completed on February 7, 2023 and February 23, 2023, respectively. The reduction in the asset equivalent exposures of SPG and related financing businesses from these first and second closings, together with recently completed sales of other portfolio assets to Apollo and other third parties and certain business reductions, has already achieved approximately 70% of its targeted asset reduction since the third quarter of 2022. We expect the full transaction to be completed in the first half of 2023. In December, we successfully completed capital raises with gross proceeds of CHF 4 billion, enabling us to drive our transformation from a position of capital strength.

2022 financial results and outlook

Our financial results for 2022 were significantly affected by the challenging macro and geopolitical environment with market uncertainty and client risk aversion, significant deposit and net asset outflows in the fourth quarter as well as the strategic actions we are taking to build the new Credit Suisse. Net revenues for 2022 decreased by 34% year on year, driven by declines across all of our divisions. Net revenues of CHF 14.9 billion included real estate gains of CHF 368 million and a valuation loss of CHF 586 million related to our equity investment in Allfunds Group.

Operating expenses of CHF 18.2 billion were down 5% year on year and included major litigation provisions of CHF 1.3 billion and restructuring expenses of CHF 533 million. For the full year 2022, Credit Suisse reported a pre-tax loss of CHF 3.3 billion, compared to a pre-tax loss of CHF 600 million for 2021. The adjusted* pre-tax loss for 2022 was CHF 1.3 billion, compared to an exceptionally strong adjusted* pre-tax income of CHF 6.6 billion for 2021. The net loss attributable to shareholders for 2022 was CHF 7.3 billion, compared to a net loss attributable to shareholders of CHF 1.7 billion in 2021. The net loss attributable to shareholders for 2022 included an impairment of deferred tax assets related to our comprehensive strategic review of CHF 3.7 billion taken in the third quarter of the year.

In view of our financial results in 2022, the Board of Directors proposes a cash distribution of CHF 0.05 per share for the 2022 financial year to shareholders at the Annual General Meeting on April 4, 2023. This is in line with the nominal dividend approach for 2022-2024 that we announced on October 27, 2022. As we complete our transformation program, we plan meaningful distributions from 2025 onwards.

6 Message from the Chairman and the Chief Executive Officer

The transformation we announced and started in 2022 is fully underway. Both in 2023 and 2024, we will be absolutely focused on the execution of our strategic plans, transforming into the new Credit Suisse with its leading franchises in Switzerland and in Wealth Management, strong capabilities in Asset Management and Markets and the carveout of CS First Boston as a leading capital markets and advisory business. We will work diligently to improve our cost efficiency in a sustainable manner, while investing in our core businesses and further improving our risk management overall.

Steering a course for success with a new and highly experienced leadership team

The Board of Directors and the Executive Board are convinced that our new strategy and implementation plans are a blueprint for future success. With a new and highly experienced leadership team, which has a proven track record in the delivery of restructurings and executing to plan, we believe we have the right team in place to achieve the strategic, cultural and operational transformation of our bank. Since October 2022, this team has been executing our strategy towards the new Credit Suisse at pace and with full dedication and commitment. Together, we will work hard to restore trust and pride in Credit Suisse, to create value for our clients and to deliver strong returns for our shareholders.

We want to take this opportunity to thank all our employees around the world for their great professionalism and dedication in 2022. They stayed close to our clients, delivering first-class service and advice, while demonstrating a high level of commitment to Credit Suisse. We would also like to thank our clients and shareholders for their support as we work tirelessly to create the new Credit Suisse and position the bank for sustainable future success.

Best regards



Axel P. Lehmann
Chairman of the
Board of Directors



Ulrich Körner
Chief Executive Officer

March 2023

Important Information

* Refers to results excluding certain items included in our reported results, which are non-GAAP financial measures. For a reconciliation to the most directly comparable US GAAP measures and other information, see “Reconciliation of adjustment items” in section II – Operating and financial review – Credit Suisse.

¹ Refers to entities and funds managed by affiliates of Apollo Global Management.

For further details on capital-related information, see “Regulatory framework” in III – Treasury, Risk, Balance sheet and Off-balance sheet – Capital Management.

This document contains forward-looking statements that involve inherent risks and uncertainties, and we might not be able to achieve the predictions, forecasts, projections and other outcomes we describe or imply in forward-looking statements. A number of important factors could cause results to differ materially from the plans, targets, goals, expectations, estimates and intentions we express in these forward-looking statements, including those we identify in “Risk factors” and in the “Cautionary statement regarding forward-looking information” in our Annual Report on Form 20-F for the fiscal year ended December 31, 2022, published on March 14, 2023 and filed with the US Securities and Exchange Commission, and in other public filings and press releases. We do not intend to update these forward-looking statements.

We may not achieve all of the expected benefits of our strategic initiatives, such as in relation to our intended reshaping of the bank, cost reductions and strengthening and reallocating capital. Factors beyond our control, including but not limited to the market and economic conditions (including macroeconomic and other challenges and uncertainties, for example, resulting from Russia’s invasion of Ukraine), customer reaction to our proposed initiatives, enhanced risks to our businesses during the contemplated transitions, changes in laws, rules or regulations and other challenges discussed in our public filings, could limit our ability to achieve some or all of the expected benefits of these initiatives. Our ability to implement our strategy objectives could also be impacted by timing risks, obtaining all required approvals and other factors.

In particular, the terms “Estimate”, “Illustrative”, “Ambition”, “Objective”, “Outlook”, “Guidance”, “Goal”, “Commitment” and “Aspiration” are not intended to be viewed as targets or projections, nor are they considered to be Key Performance Indicators. All such estimates, illustrations, ambitions, objectives, outlooks, guidance, goals, commitments and aspirations are

subject to a large number of inherent risks, assumptions and uncertainties, many of which are completely outside of our control. These risks, assumptions and uncertainties include, but are not limited to, general market conditions, market volatility, increased inflation, interest rate volatility and levels, global and regional economic conditions, challenges and uncertainties resulting from Russia’s invasion of Ukraine, political uncertainty, geopolitical and diplomatic tensions, instabilities and conflicts, changes in tax policies, scientific or technological developments, evolving sustainability strategies, changes in the nature or scope of our operations, including as a result of our recently announced strategy initiatives, changes in carbon markets, regulatory changes, changes in levels of client activity as a result of any of the foregoing and other factors. Accordingly, these statements, which speak only as of the date made, are not guarantees of future performance and should not be relied on for any purpose. We do not intend to update these estimates, illustrations, ambitions, objectives, outlooks, guidance, goals, commitments, aspirations or any other forward-looking statements. For these reasons, we caution you not to place undue reliance upon any forward-looking statements.

In preparing this document, management has made estimates and assumptions that affect the numbers presented. Actual results may differ. Annualized numbers do not take into account variations in operating results, seasonality and other factors and may not be indicative of actual, full-year results. Figures throughout this document may also be subject to rounding adjustments. All opinions and views constitute good faith judgments as of the date of writing without regard to the date on which the reader may receive or access the information. This information is subject to change at any time without notice and we do not intend to update this information.

Our estimates, ambitions, objectives, aspirations and targets often include metrics that are non-GAAP financial measures and are unaudited. A reconciliation of the estimates, ambitions, objectives, aspirations and targets to the nearest GAAP measures is unavailable without unreasonable efforts. Results excluding certain items included in our reported results do not include items such as goodwill impairment, major litigation provisions, real estate gains, impacts from foreign exchange and other revenue and expense items included in our reported results, all of which are unavailable on a prospective basis. Our cost base target is measured using adjusted operating expenses at constant 2022 foreign exchange rates and on a constant perimeter, before taking into account the SPG transaction and other divestments, all of which is unavailable on a prospective basis. Such estimates, ambitions, objectives, aspirations and targets are calculated in a manner that is consistent with the accounting policies applied by us in preparing our financial statements.

The English language version of this document is the controlling version.

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Strategy

Credit Suisse Strategy

On October 27, 2022, Credit Suisse announced a series of decisive actions intended to create a simpler, more focused bank built around client needs. The announcement follows a strategic review conducted by the Board of Directors and Executive Board, resulting in a radical restructuring of the Investment Bank, an accelerated cost transformation, and strengthened and reallocated capital.

We are taking extensive measures to deliver a new, more integrated business model, with the goal of creating value for shareholders. We will build on our leading Wealth Management and Swiss Bank franchises, with strong capabilities in Asset Management and Markets.

Over the next three years, we will focus on the following strategic priorities:

- **Restructuring the Investment Bank** to significantly reduce the risk profile and improve returns with (i) a highly connected Markets business and industry-leading investor products franchise; (ii) CS First Boston as a leading capital markets and advisory business; and (iii) a significant exposure reduction from the contemplated sale of the majority of our Securitized Products Group (SPG)'s assets and from the wind-down of other businesses moved to the Non-Core Unit (NCU).
- **Strengthening and reallocating capital** with a focus on (i) improving the CET1 ratio through, among other things, the SPG transaction and other divestments, as well as the capital raises completed in the fourth quarter of 2022; (ii) utilizing the NCU to accelerate the wind-down of non-strategic, low-return businesses and markets to release capital; and (iii) allocating almost 80% (excluding Corporate Center) of capital to Wealth Management, Swiss Bank, Asset Management and Markets by 2025.
- **Accelerating cost transformation** by significantly reducing the Group's cost base.

Strategic priorities for transforming Credit Suisse

Restructuring the Investment Bank

We are taking decisive steps to restructure the Investment Bank and focus on areas more closely connected to our core businesses where we have a competitive advantage. This will involve transforming the risk profile of the Investment Bank and targeting a reduction in each of risk-weighted assets (RWA) and leverage exposure of approximately 40% (compared to the end of the third quarter of 2022, excluding Basel III reforms) by 2025 through strategic actions across four areas:

Markets business

The Markets business includes the strongest and most relevant aspects of our trading capabilities. While remaining fully committed to serving institutional clients, our leading capabilities in cross-asset investor products as well as equities, foreign exchange and rates access is closely aligned with the Wealth

Management and Swiss Bank franchises. This allows us to provide tailored solutions to clients and differentiate ourselves from other pure-play wealth managers. These changes enable Markets to reinforce its position as a solutions provider to third-party wealth managers. Markets will also support CS First Boston.

Securitized Products Group

On November 15, 2022, Credit Suisse announced that it had entered into definitive transaction agreements to sell a significant part of its Securitized Products Group (SPG) (Apollo transaction) to entities and funds managed by affiliates of Apollo Global Management (collectively, Apollo). This transaction involves phased closings through the first half of 2023 and represents an important step towards a managed exit from the SPG business and to de-risk the bank. On February 7, 2023, the parties completed the first closing of such transaction and the majority of the assets and professionals associated with the transaction are now part of or managed by ATLAS SP Partners, a new standalone credit firm focused on asset-backed financing and capital markets solutions. On February 23, 2023, the parties completed the second closing of such transaction, with further assets transferred.

Although the closings of the Apollo transaction are phased, Credit Suisse is now, after the first closing, expecting to recognize the full pre-tax gain on the sale to Apollo of approximately USD 0.8 billion, representing a CET1 ratio benefit of approximately 30 basis points to be booked in the first quarter of 2023. Furthermore, these first and second closings, together with recently completed sales of other portfolio assets to Apollo and other third parties and certain business reductions, resulted in a reduction of the asset equivalent exposures of SPG and related financing businesses from USD 74 billion as of September 30, 2022 to approximately USD 35 billion as of February 23, 2023. As previously announced, upon completion of the Apollo transaction and the expected sale of related assets and businesses and other planned deleveraging, SPG assets are expected to be reduced to approximately USD 20 billion and up to a total of approximately USD 10 billion in RWA is currently expected to be released further benefiting the CET1 ratio. Other than the recognition of the pre-tax gain, the above outcomes are subject to regulatory approvals.

In connection with the initial closing of this transaction, Credit Suisse and Apollo entered into various ancillary agreements related to the Apollo transaction, including an investment management agreement, certain financing arrangements and a transition services agreement. Under the investment management agreement, an affiliate of ATLAS SP Partners will provide services to Credit Suisse for an initial term of five years with respect to the management of Credit Suisse's retained portfolio of SPG assets and related financing businesses intended to cover approximately USD 20 billion of assets. Credit Suisse and Apollo also entered into financing arrangements, including to finance a significant portion of the aggregate amount of assets purchased in the transaction, secured by underlying collateral. Credit Suisse expects to syndicate the majority of these financings. Furthermore, under the transitional services agreement, in order to maintain a

seamless experience for clients, Credit Suisse will provide certain transitional services to Apollo for the transferred SPG business and related financing businesses. The transfer of the remainder of the assets under the Apollo transaction remains subject to receipt of customer consents.

As we reduce residential mortgage-backed securities (RMBS) exposures and activity as part of our announced strategy towards a managed exit from the SPG business and to de-risk the bank we anticipate based on ongoing regulatory discussions that operational risk RWA associated with historical RMBS activity will decrease.

CS First Boston

On February 9, 2023, the Group announced that it had taken further important steps to progress the carve-out of CS First Boston as a leading capital markets and advisory business through the acquisition of The Klein Group LLC, the investment banking business as well as the registered broker-dealer of M. Klein & Company LLC (the seller). The Group also announced the appointment of former Board of Directors member Michael Klein as Chief Executive Officer (CEO) of Banking and regional CEO of Americas, as well as designated CEO of CS First Boston and a member of the Executive Board. Both Michael Klein's appointment to the Executive Board and the acquisition of The Klein Group LLC are subject to regulatory approval. The purchase price is USD 175 million. To align interests with the Group, the seller will receive a convertible note and a warrant. The note will provide annual payments and convert into, and the warrant entitles the seller to subscribe to, CS First Boston shares at a qualified initial public offering or other liquidity event, at the then-valuation of CS First Boston, less a customary discount. The principal amount of the convertible note is expected to be USD 100 million, with the balance being paid in cash dependent on the amount of taxes to be paid by the seller at closing. The net present value of the transaction to the Group is expected to be approximately USD 210 million, which also includes interest cost, annual payments on the note and other payments that may in the future become payable in respect of this transaction. Deutsche Bank AG has provided a fairness opinion to the Board of Directors in connection with the acquisition. The transaction is expected to close in the first half of 2023. Following the acquisition's closing, The Klein Group LLC is expected to be fully integrated into CS First Boston. The Group will retain control over the ultimate scope and structure of CS First Boston, including options to attract third-party capital in the future, as announced at the strategy update on October 27, 2022.

Capital Release Unit

Effective January 1, 2023, the Capital Release Unit (CRU) was established as a separate division to accelerate the reduction of assets, release capital, reduce risk and manage the residual of the SPG business. In advance of its formal establishment, pro-active deleveraging and de-risking measures were implemented over the fourth quarter of 2022. The CRU is working to accelerate the wind-down of these assets to release capital and liquidity while targeting cost reductions.

Strengthening and reallocating capital

In the fourth quarter of 2022, we raised capital with gross proceeds of CHF 4.0 billion through the issuance of new shares to qualified investors and through a rights offering for existing shareholders. These capital raises improved our capital base, and we ended the year 2022 with a CET1 ratio of 14.1% and a CET1 leverage ratio of 5.4%. In addition, the successful execution of the SPG transaction and other planned divestments as well as RWA and leverage reductions from the new CRU are expected to release further amounts of capital to support the execution of the strategic transformation. Accordingly, the Group expects to maintain a pre-Basel III reform CET1 ratio of at least 13.0% throughout 2023-2025, with an expected 2025 pre-Basel III reform CET1 ratio in excess of 13.5%.

The CRU comprises the NCU and the residual of the SPG business. The NCU's purpose is to release capital through the wind-down of non-strategic, low return and higher-risk businesses. The NCU includes the global prime services business, select European lending and capital markets activities, non-Wealth Management-related lending in emerging markets, our global trust business, select trading assets from our Markets business and residual assets transferred from the Asset Resolution Unit. The NCU is expected to release approximately 60% of RWA (excluding operational risk RWA) and approximately 55% of leverage exposure by the end of 2025 compared to the end of the third quarter of 2022, allowing the bank to allocate more capital to higher-return businesses where it has clear competitive advantages.

We further intend to reallocate capital to our core, higher-return businesses. The share of RWA in Wealth Management, the Swiss Bank and Asset Management, together with Markets, is estimated to increase to almost 80% (excluding the Corporate Center) by 2025, with the intention of growing the revenue share of these businesses to over 85% (excluding the Corporate Center) by 2025. CS First Boston is estimated to account for a further 9% (excluding the Corporate Center) of RWA and approximately 14% (excluding the Corporate Center and CRU) of the revenue share by 2025. As we reduce residential mortgage-backed securities (RMBS) exposures and activity as part of our announced strategy towards a managed exit from the SPG business and to de-risk the bank, we anticipate based on ongoing regulatory discussions that operational risk RWA associated with historical RMBS activity will decrease.

Accelerating cost transformation

We have started to take significant measures aiming to reduce the Group's cost base by 15%, or approximately CHF 2.5 billion, to a cost base of approximately CHF 14.5 billion in 2025. Of this, a reduction of approximately CHF 1.2 billion relative to 2022 guidance at the second quarter of 2022 is targeted for 2023. A comprehensive cost transformation program has been initiated and we plan to go deeper and further than the bank has previously indicated to substantially improve long-term efficiency while retaining a focus on strengthening risk management and investing in our core businesses. Key cost transformation initiatives include

non-core unit run down and business descopeing, organizational simplification, workforce management and third-party cost management. Our cost base target is measured using adjusted operating expenses at constant 2022 foreign exchange rates and on a constant perimeter, before taking into account the SPG transaction and other divestments.

The cost actions already initiated as of December 2022 are expected to represent around 80% of the 2023 cost base reduction target of approximately CHF 1.2 billion, with further initiatives in progress. We already reduced contractor headcount by approximately 30% and consultant headcount by approximately 20% in the fourth quarter of 2022, as we progress towards a targeted 50% reduction in consultancy spend and a 30% reduction in contractor spend in 2023. The number of employees was reduced by approximately 4% in the fourth quarter of 2022, including notified reductions in workforce. Credit Suisse expects to run the bank with approximately 43,000 employees (based on full-time equivalents) by the end of 2025 compared to approximately 52,000 at the end of the third quarter of 2022, reflecting natural attrition and targeted headcount reductions.

Credit Suisse reporting structure

Effective January 1, 2023, Credit Suisse includes the results of our five reporting segments, including the Capital Release Unit, and the Corporate Center. Core does not include the Capital Release Unit.



Corporate functions

Our operating businesses are supported by focused corporate functions at the Group Executive Board level, consisting of: Chief Financial Officer, Chief Technology & Operations Officer, Chief Risk Officer, Chief Compliance Officer, General Counsel and Global Head of People. The bank's corporate functions partner with the divisions and regions as part of our effort to provide effective collaboration, management and control oversight.

The bank estimates restructuring charges, software and real estate impairments in connection with the transformation of approximately CHF 2.9 billion over a period from the fourth quarter of 2022 to 2024. The transformation is intended to be funded through divestments, exits, the completed capital actions and existing resources.

Organizational structure

Division

Effective January 1, 2023, the Group is organized into five divisions – Wealth Management, Swiss Bank, Asset Management, the Investment Bank and a new Capital Release Unit. Beginning in the first quarter of 2023, our financial reporting will be presented accordingly.

Financial objectives and certain management actions

Strategic review

We expect to follow a clear execution roadmap and:

- Radically restructure the Investment Bank to significantly reduce risk-weighted assets, targeting a reduction in RWA of approximately 40% (as of the end of the third quarter of 2022, excluding Basel III reforms) by 2025.
- Execute the transfer of a significant part of SPG portfolio assets to Apollo.
- Accelerate cost reductions, reducing the Group's cost base by 15%, or approximately CHF 2.5 billion, to approximately CHF 14.5 billion in 2025, with an interim target of CHF 15.8 billion in 2023.
- Strengthen and reallocate capital. The Group is targeting a pre-Basel III reform CET1 ratio of at least 13% throughout the transformation from 2023 through 2025, and a pre-Basel III reform CET1 ratio of more than 13.5% by the end of 2025. In addition, we intend to allocate almost 80% of capital to Wealth Management, Swiss Bank, Asset Management and the Markets business by 2025, excluding the Corporate Center.
- Utilize the NCU to accelerate the wind-down of non-strategic, low-return businesses and markets and to release capital, targeting a reduction of approximately 60% of RWA (excluding operational risk RWA) and approximately 55% of leverage exposure by the end of 2025.

- Target a Group return on tangible equity (RoTE) of approximately 6% by 2025 and a Core RoTE of more than 8% by 2025.
- Advance a capital distribution policy with a nominal dividend over 2022-2024 and meaningful distributions from 2025 onward.

Our estimates, ambitions, objectives, aspirations and targets often include metrics that are non-GAAP financial measures and are unaudited. A reconciliation of these estimates, ambitions, objectives, aspirations and targets to the nearest generally accepted accounting principles (GAAP) measures is unavailable without unreasonable efforts. Results excluding certain items included in our reported results do not include items such as goodwill impairment, major litigation provisions, real estate gains, impacts from foreign exchange and other revenue and expense items included in our reported results, all of which are unavailable on a prospective basis. Return on Tangible Equity is based on tangible shareholders' equity, a non-GAAP financial measure also known as tangible book value, which is calculated by deducting goodwill and other intangible assets from total shareholders' equity as presented in our balance sheet, both of which are unavailable on a prospective basis. Our cost base target is measured using adjusted operating expenses at constant 2022 foreign exchange rates and on a constant perimeter, before taking into account the SPG transaction and other divestments, all of which is unavailable on a prospective basis. Such estimates, ambitions, objectives, aspirations and targets are calculated in a manner that is consistent with the accounting policies applied by us in preparing our financial statements.

Divisions

Wealth Management

Business profile

The **Wealth Management** division offers comprehensive wealth management and investment solutions and tailored financing and advisory services to ultra-high-net-worth (UHNW) and high-net-worth (HNW) individuals and external asset managers. Our wealth management business is among the industry's leaders in our target markets. We serve our clients along a client-centric and needs-based delivery model, utilizing the broad spectrum of Credit Suisse's global capabilities, including those offered by the Investment Bank and Asset Management.

We serve our clients through geographic coverage business areas Asia Pacific, Europe, Middle East & Türkiye, and Latin America, and client segment-specific coverage business areas for Premium Clients Switzerland, Private Banking International, and External Asset Managers. We continue to exit certain non-core markets, while expanding our market leading UHNW and HNW franchises in priority markets.

Organizational change

Effective January 1, 2023, both the Global Trading Solutions (GTS) and the Asia Pacific Financing Group (APFG) joint-ventures between Wealth Management and the Investment Bank were dissolved. Certain financing activities were transferred to Wealth Management. The Markets business within the Investment Bank continues to provide cross-asset investor products for Wealth Management clients, while APFG has moved to Wealth Management, with selective transactions moving to the Non-Core Unit.

- Refer to "Organizational structure" in Strategy for further information.

In October 2022, we announced the successful completion of the offering of our entire shareholding in Allfunds Group plc (Allfunds Group), which represented approximately 8.6% of the share capital of Allfunds Group, through an accelerated bookbuild offering to institutional investors. Following the completion of this transaction, we no longer hold any shares in Allfunds Group.

In September 2022, we signed separate agreements with The Bank of N.T. Butterfield & Son Limited (Butterfield) and Gasser Partner Trust reg. (Gasser Partner) for the sale of our global trust business (Credit Suisse Trust, CST). CST entities continue to operate with a limited number of clients. Under separate agreements, Butterfield acquired CST's businesses based in Guernsey, Singapore and The Bahamas, while Gasser Partner acquired CST's Liechtenstein business. The transaction with Butterfield is expected to close in 2023 and is subject to customary conditions.

Business strategy

Wealth Management significantly contributes to Credit Suisse's strategic and financial ambitions and our business is among the industry's leaders in our target markets. We redefined our business strategy in 2022 to reinvigorate long-term sustainable growth and capitalize on the attractive growth opportunities in our industry. The following six strategic priorities guide our decisions:

Integrate our Wealth Management division and simplify organization

In 2022, we took extensive integration and simplification steps to create a unified Wealth Management division. This included streamlining the number of client coverage business areas, creating a single, global external asset manager coverage unit, simplifying investment and lending solutions delivery and unifying and centralizing technology platform accountability and strategy. We believe these critical steps lay the foundations for sustainable growth of Wealth Management and will drive further synergies over time.

Grow systematically UHNW and accelerate HNW client segments

In the UHNW client segment, we continue to strengthen the focus on, and level of service provided to, UHNW clients. To this end, we made strategic hires in certain priority markets and implemented a new global coverage model and value proposition for the top-end of the segment, our Strategic Clients. Our integrated, one-stop-shop value proposition across our clients' lifecycle needs continues to be a key driver of success and differentiator for our UHNW and Entrepreneurial clients.

We evolved the HNW coverage model, through our successful Private Banking International coverage and delivery model, to include Swiss-based HNW focused relationship managers. We believe that for clients with less complex needs, a hybrid-model of engagement built around wealth planning and House View-led advisory services with a personalized and timely offering will continue to support our ambition to achieve superior client experience.

Optimize footprint with a focus on priority markets

We have a deep and long-standing history across our coverage areas and the regions served, where we are geared toward higher growth markets. As part of executing our strategic plan, we intend to focus on the clear opportunities and optimize our footprint. We have identified those priority markets that have attractive characteristics over the long-term and where we want to grow. We aim to achieve this through investing in certain initiatives to scale up and build out our presence and capabilities.

We are also in the process of reducing activities with unattractive risk and return profiles and exiting certain sub-scale markets, taking a disciplined approach to better allocate resources and sharpen focus on those priority markets.

Leverage our centralized lending and investment platforms

We focus on systematically offering solutions and products that are tailored to our clients' needs, holistically advising them on their assets and liabilities. We believe that broadened collaboration and partnership across our firm provides the basis for creating a differentiated and needs-based value proposition and for gaining a larger share of our clients' business. We are leveraging our investment strategy and research capabilities, including the Credit Suisse House View, as part of our approach to further optimize the risk/return profiles of our clients' investment portfolios, also through the Markets business in the Investment Bank, Asset Management and sustainability-related solutions. It remains our priority to grow discretionary and advisory mandates, embed sustainability considerations into our thematic investment solutions and advisory process and continue to grow our private markets and alternatives offering.

Additionally, financing solutions for our clients are an integral part of our holistic approach to wealth management. To meet their needs, we leverage our centralized capabilities and deploy a consistent product offering across regions, while maintaining a focus on managing credit portfolio and operational risk. We also plan to grow our advisory solutions in collaboration with the Investment Bank.

Enhance client and relationship manager experience through technology and automation

We continue to invest in infrastructure and drive the digital transformation with the aim of further improving the technology-enabled service experience for our clients and our relationship managers. In particular, we are focused on how we are deploying our technologies, prioritizing the development of our advanced data analytics and digital advisory strategy and our omni-channel service model.

Furthermore, we continue to take steps to prioritize and direct investment into the simplification and automation of our operating model and front-to-back processes as we consolidate and leverage our technology capabilities across geographies, enhance risk management and control processes and streamline the client onboarding process. All these measures are targeted at a better client experience, higher front-office productivity and a cost efficient and scalable global technology platform, while systematically embedding risk management and compliance into our processes.

Consistent risk management, enabling sustainable growth

We have taken steps to strengthen our approach to risk management, with a particular focus placed on client risk and compliance. Further, a more focused operating model is being implemented with a more harmonized approach to the first line of defense and our chief operating office & business risk management setup. This seeks to realign accountability and resources, reduce fragmentation and consolidate expertise.

We realigned our risk appetite and reduced the risk exposure of the credit portfolio following the execution of certain de-risking measures. As capital deployment into our division increases, we expect to grow our diversified lending portfolio in a sustainable way over time.

Products and services

We offer a wide range of wealth management solutions tailored to the specific needs of our clients, working in close collaboration with our investment banking and asset management businesses.

Structured advisory process

We apply a structured and technology-enabled approach in our advisory process based on a thorough understanding of our clients' needs, personal circumstances, product knowledge, investment objectives and a comprehensive analysis of their financial situation to define individual client risk profiles. On this basis, we define an individual investment and financing strategy in collaboration with our clients. This strategy is implemented to help ensure adherence to portfolio quality standards and compliance with suitability and appropriateness standards for all investment and financing instruments. Our relationship managers, working together with our investment consultants and, where required, with other solution-specific experts, are responsible for the implementation and ensuring our ability to provide comprehensive advice to our clients.

Comprehensive investment services

We offer a comprehensive range of investment advice and discretionary asset management services based on the outcome of our structured advisory process and the global House View of our Credit Suisse Investment Committee. We base our advice and services on the analysis and recommendations of our research and investment strategy teams, which provide a wide range of investment expertise, including macroeconomic, equity, bond, commodity and foreign-exchange analysis, as well as research on the economy. Our investment advice covers a range of services, from portfolio consulting to advising on individual investments. We offer our clients portfolio and risk management solutions, including managed investment products. These are products actively managed and structured by our specialists or third parties. We apply environmental, social and governance (ESG) criteria at various points in the investment process with an active sustainability offering, which invests in line with the Credit Suisse Sustainable Investment Framework, and passive ESG index and exchange traded funds (ETF). The Markets business within the Investment Bank continues to provide cross-asset investor products for Wealth Management clients, while our Asset Management division provides a broad range of thematic or specific investment solutions for our clients. For clients with more complex requirements, we offer investment portfolio structuring and the implementation of individual strategies, including a wide range of structured, alternative and private market investments. Discretionary asset management services are available to clients who wish to delegate the responsibility for investment decisions to Credit Suisse. In addition, our clients benefit from our comprehensive expertise and services in wealth and succession planning.

Financing and lending

We offer a broad range of financing and lending solutions across all of our private client segments, including consumer credit and real estate mortgage lending, real asset lending relating to ship and aviation financing for UHNW individuals, standard and structured hedging and lombard lending solutions as well as collateral trading services.

Swiss Bank

Business profile

The **Swiss Bank** division offers comprehensive advice and a wide range of financial solutions to private, corporate and institutional clients primarily domiciled in our home market of Switzerland. Our private clients business has a leading franchise in Switzerland, including HNW, affluent, retail and small business clients. In addition, we provide consumer finance services through our subsidiary BANK-now and the leading credit card brands through our investment in Swisscard AECS GmbH. Our corporate and institutional clients business serves large corporate clients, small and medium-sized enterprises (SMEs), institutional clients, financial institutions and commodity traders.

Organizational change

Effective January 1, 2023, the Swiss investment banking business moved from the Investment Bank division into the Swiss Bank division. Investment banking Switzerland serves corporate clients and financial institutions in connection with financing transactions in debt and equity capital markets and advises on mergers and acquisitions (M&A) transactions.

- Refer to “Organizational structure” in Strategy for further information.

Business strategy

The Swiss Bank operates in an attractive market with a resilient economy, leading multinationals and SMEs, and large institutional clients. The Swiss Bank has leading positions in each business segment: HNW, affluent, retail, consumer finance, credit cards, corporate banking, institutional banking, M&A advisory, equity capital markets and debt capital markets.

In close collaboration with the other divisions, we aim to further build on our positioning as:

- Bank for Switzerland with global expertise, committed to our Swiss home market and to all our clients in Switzerland
- Bank for Entrepreneurs, leveraging Credit Suisse experience in supporting entrepreneurs across its divisions
- Bank for bespoke solutions, working as partners, understanding clients’ complex needs and finding compelling solutions that solve problems holistically, giving clients practical experiences, services and products
- Bank for the digital generation, further leveraging digitalization, automation and data management to serve and advise our clients in an increasingly digital society and economy

The Swiss Bank operates a “high-touch/high-tech” business model, providing tailor-made solutions for HNW, affluent and corporate and institutional clients with sophisticated needs (“high-touch”), and an increasingly digitally led hybrid service model for retail and corporate clients with less complex needs and a preference for digital channels (“high-tech”). Across all businesses we seek to put a strong focus on disciplined risk management.

For “high-touch”, our aspiration is to gain market share by building on our strong positions with our clients and providing the full range of our offering. Our key initiatives to achieve this goal are:

- Strengthen global connectivity with Wealth Management, the Investment Bank and Asset Management;
- Invest in products: sustainability, lending, financial planning and further develop data analytics; and
- Drive capital velocity by redirecting capital and creating fund-based offerings.

For “high-tech”, our aspiration is to innovate with a tech-centric approach to win new clients and improve profitability. Our key initiatives to achieve this goal are:

- Simplify and digitalize front-to-back operating model;
- Further expand our CSX platform: grow private clients, enhance offering, target smaller SME clients; and
- Further invest in digital client engagement and marketing.

Products and services

For our Swiss retail and small business clients, we provide core banking solutions, such as payments, accounts, debit and credit cards, product bundles, as well as investment solutions and lending offerings such as mortgages, consumer loans and lombard loans. In 2021, we further strengthened our CSX digital brand, targeting younger and digitally savvy clients, and surpassed 300,000 clients by the end of 2022.

For our Swiss HNW and affluent clients, we provide products for day-to-day banking needs and a wide range of tailored solutions for more sophisticated client needs. These include discretionary and advisory investment mandates, a variety of lending solutions, wealth planning services as well as a dedicated offering for entrepreneurs. Apart from the aforementioned digital enhancements, we continued to invest in our advisory process in 2022. This allows us to offer our clients integrated financial planning services and more personalized offerings, which is intended to significantly enhance the client experience along their individual lifecycle.

We further built the strategic partnership with MoneyPark AG and PriceHubble AG to provide a fully integrated digital real estate offering to our clients, such as, for example an overview of the client’s property, including its valuation and further information about its surroundings integrated into our digital banking products and services.

In accordance with our ambition to position ourselves as the “Bank for Entrepreneurs”, we provide corporate and institutional clients with a holistic range of banking solutions. Our value proposition in the Swiss market allows us to assist our clients at virtually every stage of their business life cycle.

For our corporate clients, we provide a comprehensive set of banking solutions such as payment services, foreign exchange, traditional and structured lending, corporate leasing, employee share ownership services (ESOS) and escrow services. For large

Swiss corporations, multinational groups and commodity traders with specific needs for global finance and transaction banking, we leverage Credit Suisse's global investment banking expertise and provide tailored services, including large-scale financing and capital market transactions.

For our institutional clients, we have a dedicated coverage model and offer a broad range of products and services. For pension funds and corporate investors, we provide the full suite of Credit Suisse solutions:

- Institutional mandates and fund solutions from Asset Management
- Trading solutions from the Investment Bank
- Asset servicing solutions including global custody, investment reporting and private labeled funds
- Cash products and payment processing
- Investment strategy advisory including asset-liability management

For financial institutions, we deliver the following core products and services:

- Swiss franc and multicurrency payments
- Continuous linked settlement
- Swiss and international custody
- Trade finance
- Private label funds

Additionally, we provide the following investment banking products and services to our private, corporate and institutional clients:

- Advisory on both the buy- and sell-side during mergers, acquisition and divestiture transactions
- Origination and execution of capital raises through equity and equity-linked instruments, secondary placements and equity derivative transactions
- Origination and execution of bond offerings for Swiss issuers in all currencies and for international issuers in Swiss francs

Asset Management

Business profile

The Asset Management division offers investment solutions and services globally to a broad range of clients, including pension funds, governments, foundations and endowments, corporations and individuals, with a strong presence in our Swiss home market. Backed by the Group's global presence, Asset Management offers active and passive solutions in traditional investments as well as alternative investments. We apply ESG criteria at various points in the investment process with an active sustainability offering, which invests in

line with the Credit Suisse Sustainable Investment Framework, and passive ESG index and ETF.

Business strategy

Asset Management's vision is to be a multi-specialist asset manager of choice in both public and private markets and across institutional and wealth management clients, as well as third-party wholesale distributors. To deliver on this vision, we plan to simplify, strengthen and invest in our asset management business.

Simplification is a key element in the years to come as we plan to undergo a fundamental transformation of our business. This involves, among other things, (i) further reducing our non-core investment and partnership portfolio; and (ii) building one global operating platform for our core franchise, characterized by globally standardized, streamlined and automated processes with a view towards delivering scale and efficiency gains while simultaneously reducing operational risk.

While simplifying the business, we also envisage strengthening the existing franchise across key dimensions of our five defined strategic pillars: distribution, products and capabilities, operational model and technology, risk and controls, and governance and legal entity set-up. Strategic actions include the introduction of a holistic and globally aligned coverage model for our target client segments, a strengthened sales management team and the build-out of existing and new core investment capabilities.

We also plan to invest with the primary focus on shifting our business into higher margin segments of the market by (i) building out our third-party wholesale business and expanding our in-house Wealth Management connectivity; (ii) building a meaningful presence in attractive markets across Europe and the Asia Pacific region; and (iii) expanding our high alpha investment capabilities and developing our private markets offering.

Products and services

Our traditional investment products provide strategies and comprehensive management across equities, fixed income and multi-asset products in both fund formation and customized solutions. Stressing investment principles, such as risk management and asset allocation, we take an active and disciplined approach to investing. Alongside our actively managed offerings, we have a suite of passively managed solutions, which provide clients access to a wide variety of investment options for different asset classes in a cost-effective manner.

We also offer institutional and individual clients a range of alternative investment products, including credit investments, hedge fund strategies, real estate and commodities.

Investment Bank

Business profile

The **Investment Bank** offers a broad range of financial products and services focused on client-driven businesses and also supports Credit Suisse's Wealth Management division and its clients. Our suite of products and services includes global securities sales, trading and execution, capital raising and advisory services. Our clients include financial institutions, corporations, governments, sovereigns, UHNW and institutional investors, such as pension funds and hedge funds, financial sponsors and private individuals around the world. We deliver our investment banking capabilities globally through regional and local teams based in both major developed and selected emerging market centers. Our business model enables us to deliver high value, customized solutions that leverage the expertise offered across Credit Suisse and that help our clients unlock capital and value in order to achieve their strategic goals.

Organizational change

The Investment Bank in its current state continues to operate and is managed as one division. Effective January 1, 2023, the division is reorganized into Markets and Banking, with the latter to be carved out later as CS First Boston. Markets includes cross-asset investor products, equities, foreign exchange and rates trading and securities research. Banking includes capital markets, advisory and global credit products.

- Refer to "Organizational structure" in Strategy for further information.

Business strategy

On October 27, 2022, we announced our strategy to restructure the Investment Bank to significantly reduce the risk profile and improve returns. Our Investment Bank strategy is to be a leading provider of cross-asset investor products, equities, foreign exchange and rates access for Credit Suisse clients, as well as to carve out our capital markets and advisory business. In addition, we expect to reduce our risk and capital usage, targeting a reduction in each of RWA and leverage exposure from the end of the third quarter of 2022 levels of approximately 40% (pre-Basel III reforms) by 2025 through strategic actions across four areas: align and streamline our Markets business, carve out CS First Boston, complete our SPG transaction and utilize the CRU to release capital.

Our streamlined **Markets business** includes the strongest and most relevant aspects of our trading capabilities, which are aligned with Credit Suisse's strategic objectives, combined with differentiated securities research. While remaining fully committed to serving institutional clients, our leading capabilities in cross-asset investor products as well as equities, foreign exchange and rates access are closely aligned with the Wealth Management and Swiss Bank franchises and are intended to support CS First Boston once it is created. In addition, to reduce risk and capital

usage we exited and reduced certain activities across the following businesses: Prime services, emerging markets financing, fund financing and foreign exchange high-touch international institutional.

On November 15, 2022, Credit Suisse announced that it had entered into definitive transaction agreements for the Apollo transaction, which involves phased closings through the first half of 2023 and represents an important step towards a managed exit from the SPG business and to de-risk the bank. On February 7, 2023, the parties completed the first closing of such transaction and the majority of the assets and professionals associated with the transaction are now part of or managed by ATLAS SP Partners, a new standalone credit firm focused on asset-backed financing and capital markets solutions. On February 23, 2023, the parties completed the second closing of such transaction, with further assets transferred.

- Refer to "Securitized Products Group" in Strategy — Credit Suisse Strategy for further information.

The Investment Bank's **capital markets and advisory activities combined with global credit products** are expected to be integrated into CS First Boston, which after a transition period is intended to become a leading capital markets and advisory business. The core product offerings of CS First Boston will include M&A, as well as capital raising solutions across equity capital markets, debt capital markets, leveraged finance, and equity and debt derivatives, the latter two in cooperation with Markets. In addition, our credit sales & trading franchise offers clients a range of financing options, including but not limited to, collateralized loan obligation formation and repurchase agreements, providing integrated core market access and distribution capabilities. The future CS First Boston plans to attract third-party capital, as well as a preferred long-term partnership with other Credit Suisse businesses.

- Refer to "CS First Boston" in Strategy — Credit Suisse Strategy for further information.

Products and services

Capital markets and advisory

Equity capital markets originates, syndicates and underwrites equity in initial public offerings (IPOs), common and convertible stock issues, acquisition financing and other equity issues. **Debt capital markets** originates, syndicates and underwrites corporate and sovereign debt, including investment grade and leveraged loans, investment grade and high yield bonds and unit transactions. We are also a leading provider of committed acquisition financing, including leveraged loan, bridge finance and mezzanine finance. **Advisory services** advises clients on all aspects of M&A, corporate sales, restructurings, divestitures, spin-offs and takeover defense strategies. **Private Fund Group** (PFG) is a fully integrated global placement agent and advisory group with a dedicated capital solutions team providing customized liquidity solutions and direct placement capabilities to clients.

Equities

Cash equities provides clients access to primary and secondary equity markets globally. The business is a market maker on numerous exchanges, trading in traditional single stock and equity-related securities, including American depositary receipts (ADRs). Cash equities operates five primary trading desks. Advanced Execution Services (AES) is a platform operated by us to facilitate global equity trading. By employing algorithms to execute client orders and limit volatility, AES helps institutions and hedge funds reduce market impact. AES execution services are offered directly to clients and also to internal trading desks. Program trading provides execution of baskets, rather than single stock names. The desk engages in program facilitation trading, particularly around global index rebalancing and other major index events. It incorporates agency, facilitation, guaranteed VWAP (volume weighted average price), blind bids and risk trading. High-touch trading offers an interactive experience to clients, providing a higher level of client communication with sales traders on market color and trends. High-touch trading may be more relevant when clients are interested in trading less liquid products or contemplate more complex trades. ETF market making (Americas-only) provides liquidity to clients of the bank looking to transact in ETFs. Position traders stand ready to bid for or offer ETF or Index-based equities and may hold inventory for this purpose. Trades may be executed on an agency, principal (facilitation), or riskless principal basis. Systematic strategies (US-only) is a largely electronic business operating a range of process-driven liquidity providing strategies focusing on highly liquid cash equity, foreign exchange and listed derivatives through diversification and continuous risk recycling with a systematic approach to the development, implementation and risk management of electronic strategies. In addition, we also provide specific research and analytics and other content-driven products and services (such as HOLT). **Equity derivatives** provides a full range of equity-related and cross-asset products globally, including flow and structured products, systematic strategies and strategic equity solutions, as well as sophisticated hedging and risk management expertise and comprehensive execution capabilities to private banking clients, financial institutions, hedge funds, asset managers and corporations. **Convertibles** provides secondary trading and market making of convertible bonds as well as pricing and distribution of Credit Suisse-originated convertible issuances. Our equities offering also includes **HOLT**, a differentiated and proprietary framework for objectively assessing the performance of over 20,000 companies worldwide with interactive tools and consulting services that clients integrated into their investment process to make better decisions.

Fixed income

Global credit products is a client-focused credit franchise that provides expert coverage in credit trading, sales and financing. We offer market-making capabilities in private and public debt across the credit spectrum, including leveraged loans, high yield and investment grade corporate bonds, and credit derivatives. We offer clients a range of financing options for credit products including, but not limited to, repurchase agreements and collateralized loan obligation formation. **Macro products** includes

our global foreign exchange and rates businesses and structured macro solutions. Our rates business offers market-making capabilities in US cash and derivatives, European cleared swaps and select bilateral and structured solutions. Our investor products business manufactures rates, foreign exchange and commodity-based structured products for institutional and private banking clients. **Emerging markets and structured credit** include a range of structured credit products including secured financing transactions and credit investor products as well as onshore-trading in a range of local markets including Brazil, China and India.

Other

Other products and activities include lending and certain real estate investments. Corporate lending includes senior bank debt in the form of syndicated loans and commitments to extend credit to investment grade and non-investment grade borrowers.

Research

Our equity and fixed income businesses are enhanced by the securities research function. Securities research offers differentiated content with and around our leading single stock research (about 2,800 companies under coverage) leveraging proprietary insights through our industry immersion strategy, thematic research across public and private markets, insights through alternative data & analytics, and thought leadership in ESG across all our products.

Capital Release Unit

Business profile

The **Capital Release Unit** (CRU) was established to accelerate the reduction of assets, release capital, reduce risk and manage the residual of the SPG business. The Non-Core Unit (NCU) is focused on accelerating the wind-down of assets that are not aligned to the bank's strategic priorities and eliminate operating expenses and funding costs associated with these businesses.

Composition

The CRU comprises the NCU and the residual of the SPG business. The NCU includes assets, operating expenses and funding costs associated with the following businesses and activities: the remaining global prime services business, select European lending and capital markets activities, non-Wealth Management-related lending in emerging markets, our global trust business, select trading assets from our Markets business and residual assets transferred from the Asset Resolution Unit. Transfers from the Investment Bank division include corporate bank and emerging markets loans, equity swaps, fixed income trading, rates and foreign exchange, legacy life finance business and minority interest investments. The NCU is expected to release approximately 60% of RWA (excluding operational risk RWA and the impact from methodology updates) and approximately 55% of leverage exposure by the end of 2025 compared to the end of the third quarter of 2022, allowing the bank to allocate more capital to higher-return businesses where it has clear competitive advantages.

Reporting structure in 2022

Until December 31, 2022, we served our clients through four divisions – Wealth Management, Investment Bank, Swiss Bank and Asset Management. Our business divisions cooperated closely to provide holistic financial solutions, including innovative products and specially tailored advice. Our financial reporting for 2022 was presented as four reporting segments and the Corporate Center.

- Refer to the respective divisional reporting in II — Operating and financial review for further information.

The **Wealth Management** division offered comprehensive wealth management and investment solutions and tailored financing and advisory services to UHNW and HNW individuals and external asset managers. We served our clients along a client-centric and needs-based delivery model, utilizing the broad spectrum of Credit Suisse's global capabilities, including those offered by the Investment Bank and Asset Management. We served our clients through coverage areas addressing the geographies of Switzerland, EMEA, Asia Pacific and Latin America.

The **Swiss Bank** division offered comprehensive advice and a wide range of financial solutions to private, corporate and institutional clients primarily domiciled in our home market of Switzerland. Our private clients business has a leading franchise in Switzerland, including HNW, affluent, retail and small business clients. In addition, we provided consumer finance services through our

subsidiary BANK-now and the leading credit card brands through our investment in Swisscard AECS GmbH. Our corporate and institutional clients business served large corporate clients, small and medium-sized enterprises (SMEs), institutional clients, financial institutions and commodity traders.

The **Asset Management** division offered investment solutions and services globally to a broad range of clients, including pension funds, governments, foundations and endowments, corporations and individuals, with a strong presence in our Swiss home market. Backed by the Group's global presence, Asset Management offered active and passive solutions in traditional investments as well as alternative investments. We applied ESG criteria at various points in the investment process with an active sustainability offering, which invested in line with the Credit Suisse Sustainable Investment Framework, and passive ESG index and ETF.

The **Investment Bank** division offered a broad range of financial products and services focused on client-driven businesses and also supported our Wealth Management division and its clients. Our suite of products and services included global securities sales, trading and execution, capital raising and advisory services. Our clients included financial institutions, corporations, governments, sovereigns, UHNW and institutional investors, such as pension funds and hedge funds, financial sponsors and private individuals around the world. We delivered our investment banking capabilities globally through regional and local teams based in both major developed and emerging market centers.

20 Divisions

Regulation and supervision

Overview

Our operations are regulated by authorities in each of the jurisdictions in which we have offices, branches and subsidiaries.

Central banks and other bank regulators, financial services agencies, securities agencies and exchanges and self-regulatory organizations are among the regulatory authorities that oversee our businesses. There is coordination among many of our regulators, in particular among our primary regulators in Switzerland, the US, the EU and the UK as well as in the Asia Pacific region.

The supervisory and regulatory regimes of the countries in which we operate determine to some degree our ability to expand into new markets, the services and products that we are able to offer in those markets and how we structure specific operations.

Governments and regulatory authorities around the world have responded to challenging market conditions by proposing and enacting numerous reforms of the regulatory framework for financial services firms such as the Group. In particular, a number of reforms have been proposed and enacted by regulators, including our primary regulators, which could potentially have a material effect on our business. These regulatory developments could result in additional costs or limit or restrict the way we conduct our business. Although we expect regulatory-related costs and capital requirements for all major financial services firms (including the Group) to continue to be high, we cannot predict the likely impact of proposed regulations on our businesses or results. We believe, however, that overall we are well positioned for regulatory reform.

- Refer to “Risk factors” for further information on risks that may arise relating to regulation.

Recent regulatory developments and proposals

Some of the most significant regulations proposed or enacted during 2022 and early 2023 are discussed below.

Global initiatives

Certain regulatory developments and standards are being coordinated on a global basis and implemented under local law, such as those discussed below.

Interbank offered rate transition

Credit Suisse has identified a significant number of its liabilities and assets linked to interbank offered rate (IBOR) indices across businesses that require transition to alternative reference rates (ARRs) and is participating in national working groups and industry forums that are working to address this transition.

Consistent with prior announcements by the Financial Conduct Authority (FCA) and ICE Benchmark Administration Limited (IBA) on March 5, 2021, the London Interbank Offered Rate (LIBOR) administrator’s representative settings for all CHF, EUR, GBP and

JPY LIBORs and for the one-week and two-month USD LIBORs are no longer available. Representative settings for the remaining USD LIBORs will permanently cease immediately after June 30, 2023. The FCA has proposed to continue requiring the publication of synthetic USD LIBOR until September 30, 2024.

On March 15, 2022, the United States enacted the Adjustable Interest Rate (LIBOR) Act of 2021 (LIBOR Act). The federal LIBOR Act preempts similar state legislation (including that enacted in New York) and provides one national approach for replacing USD LIBOR as a reference interest rate in certain contracts, including those with no fallback provisions or with fallback provisions that identify neither a specific replacement rate nor a “determining person” as defined in the legislation, once USD LIBOR is no longer published or is no longer representative. The Board of Governors of the Federal Reserve System (Fed) has adopted the final rule that implements the LIBOR Act, which establishes benchmark replacements for contracts governed by US law that reference overnight and one-, three-, six- and 12-month tenors of USD LIBOR that do not have suitable fallback provisions after June 30, 2023. Under this final rule, the benchmark replacement will be (i) for derivative contracts and Federal Home Loan Bank advances, the “Fallback Rate (SOFR)” (as defined in the ISDA 2020 IBOR Fallbacks Protocol), or (ii) for other contracts, the applicable Secured Overnight Financing Rate (SOFR)-based benchmark rates selected by the Fed plus the relevant tenor spread adjustments. The Commodity Futures Trading Commission (CFTC) has also issued a final rule modifying the swap clearing requirement to support the transition from LIBOR and certain other interbank offered rates to alternative reference rates, including SOFR.

- Refer to “Replacement of interbank offered rates” in II — Operating and financial review — Credit Suisse — Other information for further information pertaining to IBOR transition.

Sanctions developments

As a result of Russia’s invasion of Ukraine, as well as allegations concerning Russian acts related to Syria, cybersecurity, electoral interference and other matters, the US Department of Treasury’s (US Treasury) Office of Foreign Assets Control (OFAC) has imposed sanctions against a number of parties, sectors and activities relating to Russia, including the designation of Russian government officials, financial institutions, business people and certain related companies and close associates as specially designated nationals (SDNs). Such designation blocks their assets and prohibits dealings within US jurisdiction involving the designated SDNs, entities owned 50% or more by one or more SDNs, or the property of such parties. OFAC has also imposed targeted sanctions restrictions relating to new investments in Russia, providing certain professional services to Russia, certain debt and equity activities, limitations on USD payments, Russian sovereign debt and transactions with the Russian sovereign. US law also authorizes the imposition of other restrictions against non-US entities that, among other activities, operate in the Russian financial sector or engage in significant transactions with or provide material support to blocked persons or to Russia’s military and defense industrial base. The US has also imposed certain import bans and has significantly expanded export controls against Russia.

In addition, the EU, UK, Switzerland and other governments have imposed or announced similar sanctions and trade controls against a number of parties, sectors and activities relating to Russia, including asset-freeze sanctions targeting Russian individuals and entities (including financial institutions), restrictions on deposits exceeding certain values from Russian nationals or residents, restrictions on transactions with the Russian sovereign, restrictions on providing certain professional services to Russia and capital markets-related restrictions. In addition, the EU required the disconnection of certain Russian banks from the Society for Worldwide Interbank Financial Telecommunication (SWIFT) network and the UK has prohibited new investments in Russia. A coalition of countries including the G7 countries, the EU and Australia, has implemented a prohibition on certain financial and professional services relating to the maritime transport of Russian-origin crude and petroleum products that do not conform with the coalition's price cap policy.

The Russian government has also enacted certain countermeasures, which include restrictions relating to foreign currency accounts and security transactions. In light of the continuing conflict in Ukraine, additional US, EU, UK and Swiss sanctions related to Russia or additional Russian persons or entities are possible, and the potential effects of related disruptions (including potential Russian countermeasures) may include an adverse impact on our businesses and the businesses of our customers.

In addition, political and trade tensions between the US and China led to a series of sanctions and countermeasures beginning in 2020, as previously disclosed. These include US sanctions prohibiting US persons from transacting in certain publicly traded securities linked to designated Chinese companies and foreign investment and export control developments from both China and the US. The EU has also issued sanctions against China relating to human rights, and China has issued counter-sanctions against the EU in response. Further sanctions and other restrictive measures arising from tensions between China and the US and other countries are possible, and could give rise to conflicts of law, compliance risks and market disruptions that may have an adverse impact on our businesses and the business of our customers.

Minimum tax

In October 2021, the Organization for Economic Co-operation and Development (OECD) published key parameters and rules on a minimum tax rate of 15% (Pillar Two) for multinational companies with revenue of more than EUR 750 million, such as Credit Suisse. The introduction of the minimum tax system may subject Credit Suisse to additional compliance and reporting obligations as well as increased operational costs. The impact on Credit Suisse's tax rate remains uncertain.

On June 22, 2022, in order to implement the OECD/G20 project of a minimum tax, the Swiss Federal Council adopted the dispatch on the federal resolution for the introduction of a supplementary tax on large multinational companies. In view of the time pressure, the Swiss Federal Council has decided to proceed in stages. On December 16, 2022, the Swiss Federal Parliament resolved the Swiss Federal Resolution on a Special Taxation of Large

Corporate Groups (Implementation of the OECD/G20 Project on the Taxation of Large Corporate Groups). The resolution provides for an amendment of the Swiss Federal Constitution by a new Article 129a to create the basis for the implementing legislation and for the submission of the resolution to the vote of the people and cantons. The public vote will take place on June 18, 2023. If it is adopted by the people and the cantons, the constitutional amendment will enter into force on January 1, 2024, and a temporary ordinance to regulate minimum taxation will enter into force on a date to be determined by the Swiss Federal Council, which, depending on the implementation of the minimum tax by other countries, may be as early as January 1, 2024. The temporary ordinance is to be replaced by a federal law passed by the Swiss Federal Parliament as soon as there is sufficient clarity on the application of the international minimum taxation rules.

During 2023, other jurisdictions where Credit Suisse operates are intending to enact rules to introduce the minimum tax system, expected to be effective from 2024.

Switzerland

Credit Suisse is subject to the Basel III framework, as implemented in Switzerland, as well as Swiss legislation and regulations for systemically important banks, which include capital, liquidity, leverage and large exposure requirements and rules for emergency plans designed to maintain systemically important functions in the event of impending insolvency.

- Refer to "Liquidity and funding management" and "Capital management" in III — Treasury, Risk, Balance sheet and Off-balance sheet for information regarding our current regulatory framework and expected changes to this framework affecting capital and liquidity standards.

Revision of CIS — Introduction of L-QIF

On December 17, 2021, the Swiss Parliament approved the revised Federal Act on Collective Investment Schemes (CIS), which, following an optional referendum period that ended on April 7, 2022, without a referendum being called, will enter into force and introduce the Limited Qualified Investor Fund (L-QIF) into Swiss law. The L-QIF is a new fund category which is not subject to supervisory licensing or approval requirements by Swiss Financial Market Supervisory Authority FINMA (FINMA) at the level of the fund. However, the L-QIF is only open to qualified investors and must be managed by an institution licensed and supervised by FINMA. The revised CIS is expected to enter into force in the second quarter of 2023.

FINMA enforcement action

In June 2021, FINMA opened enforcement proceedings relating to the delayed implementation of a comprehensive overview of client relationships, which is one of the measures that FINMA ordered in September 2018 in connection with the conclusion of two enforcement procedures against Credit Suisse AG. FINMA appointed a monitor to oversee the implementation and confirm effectiveness. In April 2022, FINMA issued an enforcement decision generally accepting Credit Suisse's submissions concerning the scope of the project and the related implementation and development work. FINMA found no breach of Swiss supervisory law nor imposed any reprimand and set a final deadline until the end of 2024 to finalize the implementation.

Revision of the Swiss Anti-Money Laundering Act

On August 31, 2022, the Swiss Federal Council enacted the revised Anti-Money Laundering Act (AMLA) and Anti-Money Laundering Ordinance (AMLO) with effect from January 1, 2023. The revisions provide for enhanced measures for financial intermediaries in the areas of beneficial ownership, updating of client data and suspicious activity reports concerning money laundering. In this context, on November 2, 2022, FINMA announced that it had made the necessary amendments to the implementing FINMA ordinance, which sets out the additional implementing provisions. The revised Anti-Money Laundering Ordinance-FINMA also entered into force on January 1, 2023.

In addition to the amendments to the AMLA and AMLO, the Swiss Federal Council is implementing provisions in various Swiss federal ordinances, including on reporting and on the new mandate of the Central Office for Precious Metals Control as a money laundering oversight authority. Furthermore, the duties in the event of suspicion of money laundering will no longer be set out in ordinances from the supervisory authorities, and instead will be regulated by the Swiss Federal Council.

Revision of the Swiss Bank Law and Banking Ordinance

On November 23, 2022, the Swiss Federal Council enacted the revised Federal Act on Banks and Savings Institutions (Bank Law) and the revised Federal Ordinance on Banks and Savings Institutions (Banking Ordinance), as well as certain other revised ordinances, effective as of January 1, 2023. Among other things, these amendments relate to the resolvability and resolution provisions for banks and aim to strengthen the Swiss deposit insurance program. The revisions include certain amendments to the Banking Ordinance and the Capital Adequacy Ordinance which replace the current rebate system on certain capital requirements with an incentive system.

- Refer to “Liquidity and funding management” and “Capital management” in III — Treasury, Risk, Balance sheet and Off-balance sheet for information regarding our current regulatory framework and expected changes to this framework affecting capital and liquidity standards.

Climate-related disclosures

On November 23, 2022, the Swiss Federal Council adopted the implementing ordinance on climate disclosures for large Swiss companies (Disclosure Ordinance) and enacted the Disclosure Ordinance effective as of January 1, 2024. Under the Disclosure Ordinance, public companies, banks and insurance companies with 500 or more employees and at least CHF 20 million in total assets or more than CHF 40 million in revenues are obliged to publicly report on climate-related issues. The required public reporting includes disclosures on the financial risk that a company incurs as a result of climate-related activities and the general impact of the company’s business activities on the climate.

Under the FINMA Circular 2016/1 “Disclosure — banks”, category 1 banks, such as Credit Suisse, had already included disclosures on climate-related financial risks in the annual reporting for the financial year 2021. On November 29, 2022, FINMA published the FINMA Guidance 03/2022 “implementation of climate-related risk disclosures by category 1-2 institutions” under which FINMA has further defined the applicable disclosure obligations.

On January 24, 2023, FINMA published the FINMA Guidance 01/2023 “developments in the management of climate risks,” under which FINMA reiterates its expectation that supervised institutions establish an appropriate climate risk management framework based on recognized practices.

Supervision

On December 13, 2022, FINMA published the fully revised Circular “Operational risks and resilience — banks,” in which FINMA addresses current technological developments and clarifies its supervisory practice with regard to the management of operational risks, in particular, in connection with information and communication technology, handling of critical data and cyber risks. The circular also adopts the revised principles for managing operational risks and the new principles on operational resilience published by the Basel Committee on Banking Supervision (BCBS) in March 2021. The circular will enter into force on January 1, 2024, with gradual transitional provisions for ensuring operational resilience applying over two years.

On December 14, 2022, FINMA published the partially revised Financial Market Infrastructure Ordinance-FINMA (FMIO-FINMA), which entered into force on February 1, 2023. Under the revised FMIO-FINMA, FINMA specifies the information to be reported for derivative transactions subject to a reporting obligation. Transactions involving derivatives with underlying securities that are admitted to trading on a trading venue must be reported and included in trading surveillance, and the trading venues must create the technical infrastructure to guarantee that all derivative reports can be submitted correctly and completely. In response to the benchmark reform (replacement of reference rates such as LIBOR), FINMA also updated the catalog of interest-rate derivatives that must be cleared through a central counterparty.

Tax

Rejection of withholding tax reform

As previously disclosed, in April 2021, following a consultation procedure in 2020, the Swiss Federal Council submitted to the Swiss Parliament a proposal for the amendment of the Federal Withholding Tax Act. In December 2021, the Swiss Parliament approved several amendments which would largely abolish withholding tax on interest and remove the turnover tax on domestic bonds. However, a referendum was subsequently called and on September 25, 2022, the amendments were rejected in the national vote. The reform will therefore not enter into force.

Suspension of transmission of tax-related information to Russia

On September 16, 2022, the Swiss Federal Council decided, based on the public policy provision of the Convention on Mutual Administrative Assistance in Tax Matters, to stop transmitting tax-related information to the Russian Federation for the time being. The temporary suspension affects all forms of tax-related information exchange with the Russian Federation, including the automatic exchange of information on financial accounts and country-by-country reports, the exchange of information on request and the spontaneous exchange of information.

US

Banking regulation and supervision

On June 23, 2022, the Fed announced the results of its annual supervisory stress tests, as implemented pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd Frank Act). Our US intermediate holding company (IHC) remained above its risk-based minimum capital requirements. On August 4, 2022, the Fed announced the individual capital requirements for large banks. Our US IHC's stress capital buffer increased from 6.9% to 9% based on the 2022 stress tests. This revised stress capital buffer went into effect on October 1, 2022. If our US IHC does not maintain its stress capital buffer above minimum risk-based capital requirements, it will be limited in its ability to make distributions and discretionary bonus payments.

On December 16, 2022, the Fed and the Federal Deposit Insurance Corporation (FDIC) announced that they had identified two deficiencies in our 2021 targeted plan submission. We are required to submit a revised resolution plan for our US operations by May 31, 2023 demonstrating that the identified governance weaknesses have been addressed. We are also required to submit a revised resolution plan by July 1, 2024, demonstrating that the identified cash flow forecasting weaknesses have been remediated. If these plans do not adequately remedy the applicable deficiencies, the Fed and the FDIC may jointly determine that Credit Suisse or any of its subsidiaries shall be subject to more stringent capital, leverage or liquidity requirements, or restrictions on their growth, activities, or operations.

Broker-dealer regulation and supervision

On September 16, 2020, the US Securities and Exchange Commission (SEC) adopted amendments to SEC Rule 15c2-11, which sets out a broker-dealer's information review obligations concerning the issuer of an over-the-counter security prior to publication or submission of a quotation in that security. The original compliance date for the amendments was September 28, 2021; however, the SEC staff has issued no-action letters phasing in the compliance date for quotations published by broker-dealers for certain fixed income securities. Most recently, on November 30, 2022, the SEC staff extended the phase-in period of the Rule 15c2-11 amendments to certain fixed income securities through January 4, 2025.

On December 14, 2022, the SEC proposed a new Regulation Best Execution, modeled after the Financial Industry Regulatory Authority (FINRA)'s best execution rule, which would require broker-dealers to use reasonable diligence to provide the best price to customers under current market conditions and impose certain additional policy and procedure obligations on broker-dealers. The SEC also proposed a package of reforms to the equity market structure rules that, if adopted as proposed, would make significant changes to the way equity orders are handled and executed. The proposals include a new requirement for certain retail equity orders to be exposed to a qualified auction before being executed internally, an adjustment to the tick sizes at which certain equity stocks can be quoted and extension of the tick size requirements to executions, and an expansion of the information that is reported under Regulation NMS Rule 605.

On February 15, 2023, the SEC published a final rule to shorten standard settlement cycles for certain broker-dealer transactions from two business days after the trade (T+2) to one business day after the trade (T+1). The final rule is set to take effect on May 28, 2024.

Data protection and cybersecurity

On March 9, 2022, the SEC proposed rule amendments to enhance and standardize disclosure requirements related to cybersecurity incident reporting and cybersecurity risk management, strategy and governance. The proposal was open for public comment through November 1, 2022.

On March 15, 2022, the Cyber Incident Reporting for Critical Infrastructure Act of 2022 was signed into law, imposing federal reporting requirements for cyber incidents and ransomware attack payments. The legislation will require covered entities, which will be defined in rulemaking and identified from within the 16 currently designated critical infrastructure sectors as defined in the Presidential Policy Directive 21, such as financial services, to report to the Department of Homeland Security's Cybersecurity and Infrastructure Security Agency (CISA) within 72 hours of forming a reasonable belief that a substantial cyber incident has occurred and within 24 hours of making a ransom payment following a ransomware attack. The reporting requirements will not take effect until CISA enacts implementing regulations, including clear descriptions of covered entities and "substantial cyber incident". CISA is required to publish a notice of proposed rulemaking within 24 months of the statute's enactment and a final rule within 18 months of issuing the proposed rule.

Tax

On August 16, 2022, major US tax reform legislation known as the Inflation Reduction Act (IRA) of 2022 was enacted. The IRA makes significant changes to US tax law, including the introduction of a corporate alternative minimum tax of 15% of the "adjusted financial statement income" of certain domestic corporations (effective in taxable years beginning after December 31, 2022) and a 1% excise tax on stock repurchases by certain domestic corporations (effective on repurchases made after December 31, 2022). The IRA may affect the taxation of our subsidiaries in the future and thus could affect our valuation.

Anti-money laundering regulation and supervision

On September 29, 2022, the US Treasury's Financial Crimes Enforcement Network (FinCEN) published a final rule implementing the beneficial ownership reporting requirements of the Corporate Transparency Act of 2020. Under the final rule, beginning January 1, 2024, US legal entities and foreign legal entities registered to do business in the United States will be required to report beneficial ownership information to FinCEN, unless they are eligible for an exemption from reporting.

Climate-related regulation and supervision

On March 21, 2022, the SEC issued for public comment proposed rule changes that would require registrants to include certain climate-related disclosures in their registration statements

and periodic reports, including information about climate-related governance, risk, business impacts, targets and goals and other related disclosures, as well as a note to registrants' audited financial statements providing certain climate-related metrics and impacts on a line-item basis. The proposal was open for public comment through November 1, 2022.

Clawback rule

On October 26, 2022, the SEC adopted rules requiring stock exchanges, such as the New York Stock Exchange (NYSE) on which our American Depositary Shares are listed and the Nasdaq Stock Market (Nasdaq) on which Credit Suisse AG has other securities listed, to establish new listing rules that set minimum standards for clawback policies to recover incentive-based compensation erroneously paid to current and former executive officers due to accounting restatements that must be implemented by their listed companies.

EU

Banking and securities regulation and supervision

The EU has also proposed and enacted a wide range of prudential, securities and governance regulations to address systemic risk and to further regulate financial institutions, products and markets. These proposals are at various stages of the EU pre-legislative, legislative rule-making and implementation processes, and their final form and cumulative impact remain uncertain.

The EU legislators and supervisory authorities are working towards the integration of ESG risks across the three pillars of the EU banking prudential framework. Concerning Pillar I minimum mandatory capital requirements, the proposed amendment of the Capital Requirements Regulation (CRR) through an amending Regulation (CRR III) would advance the deadline from 2025 to 2023 for the European Banking Authority (EBA) to deliver its report on a possible dedicated prudential treatment for exposures subject to environmental and social risk.

Concerning Pillar II supervisory review, in 2022 the European Central Bank (ECB) conducted climate stress tests among significant credit institutions and published its findings in July 2022. In 2022, the ECB also launched a thematic review of credit institutions' climate-related and environmental risk strategies, as well as their governance and risk management framework, and in November 2022, it published a report on the good practices it identified for climate-related and environmental risk management and set deadlines for individual significant banks to achieve full alignment with ECB expectations relating to such risks. Certain national authorities in several EU member states have taken similar initiatives with respect to less significant banks that are directly supervised by them. Concerning Pillar III disclosure requirements, new rules apply for the disclosure of ESG risks by large listed institutions as of December 31, 2022. CRR III proposes to extend these disclosure obligations in the future to all EU banks.

In 2020, the European Commission presented a "Communication on a Digital Finance Strategy for the EU" and several legislative proposals that form part of the so-called Digital Finance

Package: a "Regulation on Markets in Crypto-Assets" (MiCA), a "Digital Operational Resilience Act" (DORA), and a "Regulation on a pilot regime for market infrastructures based on distributed ledger technology" (DLT Pilot Regulation). On June 30, 2022, the Council of the EU and the European Parliament reached a provisional agreement on MiCA, which is a proposed regulation aimed at creating an EU harmonized regulatory framework for the issuance, offering to the public and trading of crypto-assets and stablecoins in the EU. The final vote by the European Parliament is currently scheduled for April 2023. On November 28, 2022, the Council of the EU adopted DORA, which is a package composed of a regulation and a directive aimed at harmonizing and strengthening the IT security requirements of European financial entities such as banks, insurance companies and investment firms. Its purpose is to make sure that the financial sector in Europe is able to maintain resilient operations in case of severe operational disruption. DORA will become applicable on January 17, 2025. On May 30, 2022, the DLT Pilot Regulation was adopted and will be effective on March 23, 2023. It aims to provide European DLT-based trading and securities settlement systems with harmonized licensing and conduct of business rules suited to DLT-based crypto-assets that qualify as financial instruments under the revised Markets in Financial Instruments Directive.

On November 28, 2022, the Council of the EU approved the Corporate Sustainability Reporting Directive (CSRD), which entered into force on January 5, 2023. The new rules will need to be implemented by member states within 18 months. The CSRD will require companies to publish detailed information on how their business model affects their sustainability and on how external sustainability factors (such as climate change or human rights issues) influence their activities. The CSRD strengthens the existing rules on non-financial reporting introduced in the Accounting Directive by the 2014 Non-financial Reporting Directive. The application of the CSRD will take place in four stages.

UK

Banking regulation and supervision

On July 27, 2022, the FCA published its final rules and guidance for a new duty of care owed by UK financial services firms, including UK authorized firms of the Group, to retail customers (Consumer Duty). The new rules introduce the overarching principle that firms must "act to deliver good outcomes for retail customers"; the principle is supported by four specific outcomes relating to products and services, price and value, consumer understanding and customer support. The rules and guidance also introduce requirements for firms to monitor, and for their management to confirm at least once annually, compliance with the Consumer Duty. The effective date will be July 31, 2023 in respect of new and existing products or services that are open to sale or renewal, and July 31, 2024 for "closed" products or services.

On November 30, 2022, the Prudential Regulation Authority (PRA) published Consultation Paper CP16/22 on the Implementation of the Basel III standards that remain to be implemented in the UK.

The proposals in the consultation paper include, among other things, changes to the rules on credit risk, operational risk and credit valuation adjustment, and the implementation of the output floor. The PRA proposes that the new rules apply from January 1, 2025, subject to certain transitional provisions. On the same day, His Majesty's Treasury (HM Treasury) launched a related consultation on the technical and legislative changes necessary to facilitate the PRA's implementation of the remaining Basel III standards. In addition, HM Treasury's consultation seeks views on improving aspects of the prudential framework, including changes in relation to equivalence, resolution and overseas exchanges.

Data protection regulations

On March 21, 2022, two new agreements governing international data transfers out of the UK came into force: the International Data Transfer Agreement (IDTA) and the Data Transfer Addendum (Addendum). The IDTA is a stand-alone agreement, whereas the Addendum supplements the European Commission Standard Contractual Clauses (SCCs) for transferring personal data from the EEA to third countries pursuant to the General Data Protection Regulation (GDPR) approved by the European Commission on June 4, 2021. The old SCCs are still considered to provide adequate safeguards until March 21, 2024 for contracts entered into before September 22, 2022. All new contracts entered into after September 22, 2022 must be safeguarded by either the IDTA or the Addendum.

Regulatory framework

The principal regulatory structures that apply to our operations are discussed below.

Global initiatives

Total Loss-Absorbing Capacity

On January 1, 2019, the final Financial Stability Board's (FSB) total loss-absorbing capacity (TLAC) standard for global systemically important banks (G-SIBs) became effective, subject to a phase-in until January 1, 2022. The purpose of the standard is to enhance the ability of regulators to recapitalize a G-SIB at the point of non-viability in a manner that minimizes systemic disruption, preserves critical functions and limits the exposure of public sector funds. TLAC-eligible instruments include instruments that count towards satisfying minimum regulatory capital requirements, as well as long-term unsecured debt instruments that have remaining maturities of no less than one year, are subordinated by statute, corporate structure or contract to certain excluded liabilities, including deposits, are held by unaffiliated third parties and meet certain other requirements. Excluding any applicable regulatory capital buffers that are otherwise required, as of January 1, 2022, the minimum TLAC requirement is at least 18% of a G-SIB's risk-weighted assets. In addition, as of January 1, 2022, the minimum TLAC requirement is at least 6.75% of the Basel III leverage ratio denominator. National regulators may implement or interpret the requirements more strictly within their own jurisdictions.

In Switzerland, the FSB's TLAC standard was implemented on July 1, 2016 under the Capital Adequacy Ordinance.

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In the US, the Fed has adopted a final rule that implements the FSB's TLAC standard. The final rule requires, among other things, the US IHCs of non-US G-SIBs, such as Credit Suisse's US IHC, to maintain minimum amounts of "internal" TLAC, a TLAC buffer and long-term debt satisfying certain eligibility criteria, commencing January 1, 2019. The entity designated as Credit Suisse's US IHC is required to issue all TLAC debt instruments to a foreign parent entity (a non-US entity that controls the IHC) or another foreign affiliate that is wholly owned by its foreign parent. The final rules also impose limitations on the types of financial transactions in which the entity designated as Credit Suisse's US IHC can engage.

In the UK, the Bank of England published its statement of policy on its approach to establishing the requirement under the EU Bank Recovery and Resolution Directive (BRRD) for certain UK entities, including Credit Suisse International (CSI) and Credit Suisse Securities (Europe) Limited (CSSEL), to maintain MREL as well as its approach on setting internal MREL. Similar to the FSB's TLAC standard, the MREL requirement obliges firms within the scope of the BRRD to maintain a minimum level of own funds and liabilities that can be bailed in. The statement of policy provides that internal MREL requirements for UK material subsidiaries of non-UK G-SIBs, such as Credit Suisse would be scaled between 75% and 90% of external MREL based on factors including the resolution strategy of the group and the home country's approach to internal TLAC calibration. Interim internal MREL requirements came into effect beginning January 1, 2019, and their full implementation became effective January 1, 2022. In addition, the amendments to the CRR made by amending Regulation (CRR II) introduced a requirement, as of June 27, 2019, for material subsidiaries of non-EU G-SIBs, which are not resolution entities, to maintain internal MREL scaled at 90% of the external MREL requirement that would apply if the material subsidiary were a resolution entity. The UK Government intends to legislate to remove this requirement and only subject banks to the Bank of England's MREL policy. The Bank of England has stated that its statement of policy should be read in compliance with the CRR II requirements.

ISDA Resolution Stay Protocols

Credit Suisse voluntarily adhered to the ISDA 2015 Universal Resolution Stay Protocol (ISDA 2015 Universal Protocol) at the time of its launch in November 2015. By adhering to the ISDA 2015 Universal Protocol, parties agree to be bound by certain existing and forthcoming special resolution regimes to ensure that cross-border derivatives and securities financing transactions are subject to statutory stays on direct and affiliate-linked default rights in the event a bank counterparty enters into resolution, regardless of its governing law. These stays are intended to facilitate an orderly resolution of a troubled bank. The ISDA 2015 Universal Protocol also introduces similar stays and overrides

on affiliate-linked default rights in the event that an affiliate of an adhering party becomes subject to proceedings under the US Bankruptcy Code, under which no such stays or overrides currently exist.

In order to expand the scope of parties and transactions covered by the ISDA 2015 Universal Protocol or similar contractual arrangements, the G20 committed to introducing regulations requiring large banking groups to include ISDA 2015 Universal Protocol-like provisions in certain financial contracts when facing counterparties under foreign laws.

In Switzerland, the Banking Ordinance and the Federal Ordinance of FINMA on the Insolvency of Banks and Securities Dealers (FINMA Banking Insolvency Ordinance) require Swiss banks, including Credit Suisse, to include a clause under which the counterparty recognizes FINMA's stay powers under the Federal Act on Banks and Savings Banks of November 8, 1934, as amended, in certain of their contracts and in certain contracts entered into by their subsidiaries or affiliates. The requirement to include such a clause applies to the financial contracts exhaustively listed under the FINMA Banking Insolvency Ordinance and that are not governed by Swiss law or that provide for jurisdiction outside of Switzerland.

In the UK, the PRA published final rules requiring UK entities to ensure that their counterparties under a broad range of financial arrangements are subject to the stays on early termination rights under the UK Banking Act that would be applicable upon their resolution.

ISDA has developed another protocol, the ISDA Resolution Stay Jurisdictional Modular Protocol, which is intended to be a mechanism to facilitate market-wide compliance with these requirements by both dealers, such as Credit Suisse, and their counterparties.

In the EU, amendments to BRRD (through amending Directive BRRD II) (BRRD II) introduced harmonized requirements for relevant EU entities to include a contractual term within certain financial contracts governed by the laws of a non-EU jurisdiction, recognizing that the contract may be subject to the exercise of resolution powers by the resolution authority to suspend the entity's payment or delivery obligations, or to suspend a counter-party's termination or security enforcement rights.

In the US, the Fed, the FDIC and the Office of the Comptroller of the Currency (OCC) each issued final rules designed to improve the resolvability of US-headquartered G-SIBs and the US operations of non-US G-SIBs, such as our US operations. These final rules require covered entities to modify certain qualified financial contracts to obtain the agreement of counterparties that (1) their qualified financial contracts are subject to the stays on default rights under the Dodd-Frank Act's Orderly Liquidation Authority and the Federal Deposit Insurance Act, which is similar to requirements introduced in other jurisdictions to which we are already subject, and (2) certain affiliate-linked default rights would be limited or overridden if an affiliate of the G-SIB entered proceedings under the US Bankruptcy Code or other insolvency or resolution

regimes. ISDA has developed the ISDA 2018 US Resolution Stay Protocol (ISDA US Protocol) to facilitate compliance with the final rules. All the relevant Credit Suisse's entities have adhered to the ISDA US Protocol to amend their qualified financial contracts with adhering counterparties to comply with the final rules.

Data protection regulation

The GDPR applies to the processing of personal data in the context of our EU establishments as well as on an extraterritorial basis. The GDPR also forms the basis of our Global Data Protection standard ensuring that policies and processes of the highest standard apply to all Credit Suisse entities globally, subject to local laws and regulations. The GDPR requires us to take various measures to ensure compliance with the regulation, including processing personal data in accordance with the data protection principles, maintaining records of data processing, ensuring adequate security for personal data, complying with data breach notification requirements, and giving effect to data subjects' rights. Furthermore, in accordance with the GDPR, we have appointed a Data Protection Officer who is responsible for monitoring our compliance with and providing advice in connection with global data protection laws and regulations. The GDPR grants broad enforcement powers to data protection authorities, including the potential to levy significant administrative fines for non-compliance.

In addition to the GDPR, other jurisdictions in which we operate have adopted or are proposing data privacy standards, for example the Federal Act on Data Protection in Switzerland, applicable US data privacy laws including the GLBA, CCPA and CPRA (each as defined herein), the Thailand Personal Data Protection Act and the Data Protection Law DIFC No. 5 2020 in Dubai, some of which are similar to the GDPR or contain their own requirements more robust than the GDPR. Following the UK's withdrawal from the EU, the UK also adopted into its national legislation the UK version of the GDPR, which largely mirrors the GDPR as in force in the EU; however, there is currently uncertainty as to whether the UK government intends to significantly overhaul the data protection regime in the UK. In 2021, China passed the Data Security Law and the Personal Information Protection Law, which enacts strict requirements around the areas of information security, personal data processing, data localization and cross-border data transfers, and under which the Chinese government can request data for national security or criminal investigations and must give its approval prior to the transfer of data to a judicial or enforcement agency outside of China. As additional data privacy laws come into effect in the coming years, we continue to monitor changes and ensure compliance with our data privacy obligations.

Foreign Exchange

In 2017, public and private sector representatives from the foreign exchange (FX) committees of 16 international foreign exchange trading centers agreed to form a Global Foreign Exchange Committee (GFXC) and publish the FX Global Code, which sets out global principles of good practice, including ethics, governance, execution, information sharing, risk management and compliance,

and confirmation and settlement processes. Credit Suisse signed the FX Global Code's Statement of Commitment on a global basis on May 21, 2018 and supports the adoption of the FX Global Code by FX market participants. The GFXC published an updated version of the FX Global Code on July 15, 2021.

Switzerland

Banking regulation and supervision

Although Credit Suisse Group is not a bank according to the Bank Law and the Banking Ordinance, the Group is required, pursuant to the provisions on consolidated supervision of financial groups and conglomerates of the Bank Law, to comply with certain requirements for banks. Such requirements include capital adequacy, loss-absorbing capacity, solvency and risk concentration on a consolidated basis, and certain reporting obligations. Our banks in Switzerland are regulated and supervised by FINMA on a legal entity basis and, if applicable, on a consolidated basis.

Our banks in Switzerland operate under banking licenses granted by FINMA pursuant to the Bank Law and the Banking Ordinance. In addition, certain of these banks hold securities firm licenses granted by FINMA pursuant to the Swiss Federal Act on Stock Exchanges and Securities Trading, which was in effect at the time the license was granted. As of January 1, 2020, the applicable ongoing licensing requirements for securities firms are set out under the Financial Institutions Act (FinIA) and the Financial Institutions Ordinance (FinIO).

FINMA is the sole bank supervisory authority in Switzerland and is independent, including from the Swiss National Bank (SNB). Under the Bank Law, FINMA is responsible for the supervision of the Swiss banking system. The SNB is responsible for implementing the government's monetary policy relating to banks and securities firms and for ensuring the stability of the financial system. Under the "Too Big to Fail" legislation, the SNB is also responsible for determining which banks in Switzerland are systemically important banks and which functions are systemically relevant in Switzerland. The SNB has identified the Group on a consolidated basis as a systemically important bank for the purposes of Swiss law.

Our banks in Switzerland are subject to close and continuous prudential supervision and direct audits by FINMA. Under the Bank Law, our banks are subject to inspection and supervision by an independent regulatory auditing firm recognized by FINMA, which is appointed by the bank's board of directors and required to assess whether the bank is in compliance with Swiss laws and regulations, including the Bank Law, the Banking Ordinance and the relevant FINMA regulations.

Credit Suisse is subject to the Basel III framework, as implemented in Switzerland, as well as Swiss legislation and regulations for systemically important banks, which include capital, liquidity, leverage and large exposure requirements, and rules for emergency plans designed to maintain systemically relevant functions in the event of impending insolvency.

Our regulatory capital is calculated on the basis of accounting principles generally accepted in the US, with certain adjustments required by, or agreed with, FINMA.

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Under Swiss banking law, banks and securities firms are required to manage risk concentration within specific limits. Aggregated credit exposure to any single counterparty or a group of related counterparties must bear an adequate relationship to the bank's adjusted eligible capital (for systemically important banks like us, to their core Tier 1 capital) taking into account counterparty risks and risk mitigation instruments.

The Financial Services Act (FinSA) and FinIA as well as the implementing ordinances, the Financial Services Ordinance (FinSO) and the FinIO, provide for a comprehensive regime, governing the provision of financial services in Switzerland, including to Swiss clients from abroad on a cross-border basis, as well as the offering of financial instruments, and the admission to trading of financial instruments in Switzerland. Further, FinSA sets out a prospectus regime for the offering of securities in Switzerland. FINMA granted both BX Swiss AG and the SIX Exchange Regulation AG a license as reviewing bodies for prospectuses. The reviewing bodies are regulated under the FinSA and are tasked with reviewing and approving the prospectuses published in connection with a public offer of securities or the admission of securities to trading on a trading venue in Switzerland. Subject to certain exemptions, the publication of approved prospectuses is mandatory for issuers of securities, provided a public offer or admission to trading is intended in Switzerland. FinSA also sets out duties for Swiss financial service providers or foreign financial service providers providing financial services to clients in Switzerland, including on a mere cross-border basis. FinIA and FinIO govern the licensing requirements and provide for a differentiated supervisory regime for securities firms, asset managers, trustees, managers of collective assets, fund management companies and investment firms.

Under the Bank Law and FinIA, Swiss banks and securities firms are obligated to keep confidential the existence and all aspects of their relationships with customers. These customer confidentiality laws do not, however, provide protection with respect to criminal offenses such as insider trading, money laundering, terrorist financing activities, tax fraud or evasion or prevent the disclosure of information to courts and administrative authorities.

Swiss rules and regulations to combat money laundering and terrorist financing are comprehensive and require banks and other financial intermediaries to thoroughly verify and document customer identity before commencing business. In addition, these rules and regulations, aimed at preventing money laundering, include obligations to maintain appropriate policies for dealings with politically exposed persons and procedures and controls to detect money laundering and terrorist financing activities, including reporting suspicious activities to authorities.

In addition, the Swiss Criminal Code provides for stringent anti-corruption and anti-bribery laws prohibiting illegitimate bribery payments (and the receipt thereof) to Swiss and foreign public officials as well as persons in the private sector.

Compensation design and its implementation and disclosure have been required to comply with standards promulgated by FINMA under its Circular on Remuneration Schemes and the Swiss Code of Obligations, as updated from time to time.

Securities firm and asset management regulation and supervision

Our securities firm activities in Switzerland are conducted primarily through the Bank, under the supervision of FINMA, and are subject to regulation under FinIA and FinIO, which regulate all aspects of the securities firm business in Switzerland, including regulatory capital, risk concentration, sales and trading practices, record-keeping requirements and procedures and periodic reporting procedures.

Our asset management activities in Switzerland, which include the establishment and administration of mutual funds registered for public distribution, are conducted under the supervision of FINMA and are governed by FinIA, FinSA and the Federal Act on Collective Investment Schemes.

Resolution regime

Following the financial crisis of 2007/2008, the Swiss legislator promulgated special rules for the stabilization and restructuring of systemically important financial institutions. Among other aspects, these rules require plans for recovery and resolution. Each systemically important bank is required to submit a recovery plan to FINMA once a year, in which it sets out how it would stabilize itself in a crisis without government intervention, also taking the requirements of foreign regulators into account; this plan requires FINMA's approval. In addition, each Swiss systemically important bank must submit an emergency plan, in which it details how it would ensure uninterrupted continuity of its systemically important functions in Switzerland, particularly access to deposits and payments, in a crisis; FINMA must review this plan and evaluate whether it is ready to be implemented if necessary. Credit Suisse was required to submit an effective Swiss emergency plan to FINMA for review by the end of 2019, and on February 25, 2020, FINMA published a report noting that it regarded the Swiss emergency plan submitted by Credit Suisse as effective. A third element is the resolution plan, which FINMA produces for systemically important banks, indicating how the entire global group would be recapitalized, restructured and/or liquidated in a crisis; FINMA assesses the resolvability of an institution on the basis of whether the preparations are sufficient to successfully implement the plan if necessary. On March 24, 2022, FINMA published a report providing a detailed assessment of the recovery and resolution plans of the systemically important Swiss institutions. FINMA approved the recovery plans of all five systemically important Swiss banks. FINMA continued to regard the Swiss emergency plan submitted by Credit Suisse as effective. With respect to the global resolvability, FINMA concluded that Credit Suisse has already taken important preparatory steps and has made further progress in 2021.

The Bank Law governs resolution (i.e., restructuring or liquidation) proceedings applicable to Swiss banks and securities firms, such as Credit Suisse AG and Credit Suisse (Schweiz) AG, and Swiss-domiciled parent companies of financial groups, such as Credit Suisse Group AG, and certain other unregulated Swiss-domiciled companies belonging to financial groups. Additional implementing provisions are set out under the FINMA Banking Insolvency Ordinance. Instead of prescribing a particular resolution concept, the Bank Law and the FINMA Banking Insolvency Ordinance provide FINMA with a significant amount of authority and discretion in the case of resolution, as well as various restructuring tools from which FINMA may choose.

FINMA may open resolution proceedings if there is an impending insolvency because there is justified concern that the relevant Swiss bank (or Swiss-domiciled parent companies of financial groups and certain other unregulated Swiss-domiciled companies belonging to financial groups) is over-indebted, has serious liquidity problems or no longer fulfills capital adequacy requirements. Resolution proceedings may only take the form of restructuring (rather than liquidation) proceedings if (i) the recovery of, or the continued provision of individual banking services by, the relevant bank appears likely and (ii) the creditors of the relevant bank are likely not worse off in restructuring proceedings than in liquidation proceedings. All realizable assets in the relevant entity's possession will be subject to such proceedings, regardless of where they are located.

If FINMA were to open restructuring proceedings with respect to Credit Suisse AG, Credit Suisse (Schweiz) AG or Credit Suisse Group AG, it would have discretion to take decisive actions, including (i) transferring the assets of the banks or Credit Suisse Group AG, as applicable, or a portion thereof, together with its debt and other liabilities, or a portion thereof, and contracts, to another entity, (ii) staying (for a maximum of two working days) the termination of, and the exercise of rights to terminate netting rights, rights to enforce or dispose of certain types of collateral or rights to transfer claims, liabilities or certain collateral, under contracts to which the banks or Credit Suisse Group AG, as applicable, is a party, (iii) converting the debt of the banks or Credit Suisse Group AG, as applicable, into equity (debt-to-equity swap), and/or (iv) partially or fully writing off the obligations of the banks or Credit Suisse Group AG, as applicable (haircut).

Prior to any debt-to equity swap or haircut, outstanding equity capital and debt instruments issued by Credit Suisse AG, Credit Suisse (Schweiz) AG or Credit Suisse Group AG that are part of its regulatory capital (including outstanding high trigger capital instruments and low trigger capital instruments) must be converted or written off (as applicable) and cancelled. Any debt-to-equity swap (but not any haircut) would have to follow the hierarchy of claims to the extent such debt is not excluded from such conversion by the Bank Law. Contingent liabilities of Credit Suisse AG, Credit Suisse (Schweiz) AG or Credit Suisse Group AG such as guarantees could also be subjected to a debt-to-equity swap or a haircut, to the extent amounts are due and payable thereunder at any time during restructuring proceedings.

For systemically important institutions, such as Credit Suisse AG, Credit Suisse (Schweiz) AG and Credit Suisse Group AG, creditors have no right to reject the restructuring plan approved by FINMA.

Supervision

The Federal Act on Financial Market Infrastructure and Market Conduct in Securities and Derivatives Trading (FMIA) governs the organization and operation of financial market infrastructures and the conduct of financial market participants in securities and derivatives trading. FMIA, along with the Financial Market Infrastructure Ordinance (FMIO) came into effect on January 1, 2016, subject to certain transitional periods. Under the FMIA, FINMA was designated to determine the timing of the introduction of a clearing obligation and to specify the categories of derivatives covered. Accordingly, on September 1, 2018, the revised Ordinance of the Swiss Financial Market Supervisory Authority on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading entered into force, introducing a mandatory clearing obligation for standardized interest-rate and credit derivatives traded over-the-counter (OTC) and making effective, as of such date, the deadlines for the first clearing obligations laid down in the FMIO.

Tax

Automatic exchange of information and administrative assistance in tax matters

In Switzerland, the Multilateral Convention on Mutual Administrative Assistance in Tax Matters (MAC) and the Multilateral Competent Authority Agreement (MCAA), together with the Federal Act on the International Automatic Exchange of Information in Tax Matters and its implementing ordinance, form the legal basis for the automatic exchange of information. Based on the MCAA, the multilateral agreement with the EU on the international automatic exchange of information in tax matters and a number of bilateral automatic exchange of information (AEI) agreements, most of them based on the MCAA, Switzerland collects and exchanges information with more than 100 jurisdictions in respect of financial assets held in, and income derived thereon and credited to, accounts or deposits maintained in Switzerland.

Further to the MAC, Switzerland is required to spontaneously exchange certain information on advanced tax rulings in accordance with the OECD and G20 project to combat base erosion and profit shifting. Additionally in 2009, Switzerland adopted the OECD standard on administrative assistance in tax matters in accordance with Art. 26 of the OECD Model Agreement which has subsequently been included in 81 Double Tax Agreements, 80 of which are in force and applicable. The 2009 protocol (Protocol, ratified in 2019) amending the tax treaty regarding income tax between Switzerland and the US, a mechanism for the exchange of information upon request in tax matters between Switzerland and the US is now in place. This mechanism allows the US to make group requests under the US Foreign Account Tax Compliance Act (FATCA) concerning non-consenting US accounts and non-consenting non-participating foreign financial institutions. The Protocol further erases the distinction between tax evasion and tax fraud in

the context of administrative assistance to permit any exchanges of information as may be relevant to the administration or enforcement of the domestic laws concerning taxes.

Finally, in accordance with the MCAA on the Exchange of Country-by-Country Reports as well as the implementing Swiss federal legislation, multinational groups of companies in Switzerland have to prepare country-by-country reports since the 2018 tax year with the exchange of the reports by Switzerland having started in 2020.

Tax exemptions on TLAC and similar instruments

Based on the revised Withholding Tax Act, which entered into force on January 1, 2022, the exemption from withholding tax of interest paid on contingent convertible bonds and write-down bonds of banks or group companies of finance groups which were approved by FINMA and issued between January 1, 2013 and December 31, 2021, has been extended to issuances between January 1, 2013 and December 31, 2026. It also exempts interest paid on TLAC instruments approved by FINMA for purposes of meeting regulatory requirements which have been or will be issued between January 1, 2017 and December 31, 2026, or have been issued prior to January 1, 2017 where the foreign issuer thereof has been or will be substituted for a Swiss issuer between January 1, 2017 and December 31, 2026.

Furthermore, since 2017, equity securities in banks or group companies of a financial group issued in connection with the conversion of TLAC instruments into equity are exempt from the 1% issuance stamp tax, in addition to the exemption since 2012 for equity securities in banks issued from conversion capital.

Participation exemption for “Too Big to Fail” instruments

Current legislation requires systemically important banks to issue contingent convertible bonds, write-off bonds and bail-in bonds (“Too Big to Fail” instruments) through their top holding company, which may then on-lend the funds to direct or indirect subsidiaries. Based on the revised Withholding Tax Act, as amended by the Federal Act on Calculation of the Participation Deduction for “Too Big to Fail” instruments, which became effective as of January 1, 2019, top holding companies (Konzernobergesellschaften) of systemically important banks are permitted to carve out interest expenses on these “Too Big to Fail” instruments for purposes of calculating their tax-exempt net participation income. To level the effect of the carve-out, the respective assets and liabilities positions are also eliminated in the calculation. This allows for a calculation of the participation exemption with a complete carve-out of “Too Big to Fail” instruments to the extent the proceeds thereof are downstreamed.

50:50 distribution rule

Based on the Withholding Tax Act and federal and cantonal income tax acts, as amended by the Federal Act on Tax Reform and Alters- und Hinterlassenenversicherung (AHV) Financing, which became effective as of January 1, 2020, companies listed on a Swiss stock exchange that are paying a dividend out of legal capital contribution reserves are required to simultaneously pay a dividend out of taxable reserves of at least the same amount.

Also, under these new rules, when a company listed on a Swiss stock exchange repurchases shares to cancel them, the company must charge at least fifty percent of the liquidation amount to capital contribution reserves, the liquidation amount being the amount equal to the repurchase price less the nominal amount. Prior to the new law, these companies were not limited in using the one or other type of reserves.

The Swiss Federal Tax Authority's and Swiss courts' practice on withholding tax refunds

The Swiss Federal Tax Authority (FTA) and the Swiss courts continue to apply a strict beneficial ownership test for the application of any double taxation agreement-based refund or Swiss domestic law-based refund of Swiss withholding tax on dividend payments and interest payments on equity instruments or bond instruments, respectively, of issuers domiciled in Switzerland. The focus is on the beneficial ownership of the securities and/or the dividends or interest at the time of payment, which is assessed from a factual and economic point of view, without regard to the parties' intentions or motivation. At the request of the FTA, the party requesting a refund must prove beneficial ownership in the form of detailed documentation. In the context of derivative transactions, it has become increasingly more difficult to obtain a refund of Swiss withholding tax as in many cases the FTA will not consider the recipient of a payment subject to withholding tax as the beneficial owner of such payment if the market risk from the securities paying the taxable amount is fully or almost fully hedged by the derivative transaction. However, the Swiss Supreme Court has also held that this strict application of the beneficial ownership test, as well as the proof requirements, do not mean that a financial institution involved in a derivative transaction is not entitled to a refund; if beneficial ownership can be established, a refund will be granted.

Cybersecurity

FINMA continues to view cyber risks as one of the most significant operational risks for financial institutions, and has increasingly focused its supervisory practice on such risks. Supervised institutions such as Credit Suisse are, therefore, required to adequately address the relevant cyber risks under their operational risk management. These risks are also monitored directly by FINMA, for example through ongoing supervision and focused on-site audits, and monitored by audit firms as part of the regulatory audit process. Further, under the FINMA Guidance 05/2020 — Duty to report cyber attacks pursuant to Article 29 paragraph 2 FINMASA, FINMA has outlined the regulatory duties in case of cyber attacks directed against Swiss supervised financial institutions. Thereunder, supervised entities must notify FINMA within 24 hours of cyber attacks that could potentially lead to a malfunction or failure of its critical functions. Depending on the severity of the cyber attack, additional disclosure and reporting obligations may apply.

Environmental, social and human rights — due diligence, disclosure obligations and prevention of greenwashing

The Swiss regulatory framework sets out a number of due diligence and disclosure requirements relating to environmental,

social and human rights related matters. Under the Ordinance on Due Diligence and Transparency Requirements regarding Metals and Mineral from Conflict Areas and Child Labor (Due Diligence and Transparency Ordinance), companies of public interest (i.e., listed companies, banks, insurance companies and other supervised companies in the financial sector) must report annually on certain non-financial matters and must provide information on the impact the company's activity has on environmental (including CO2 targets), social, employee, human rights and anti-corruption matters. In addition, under the FINMA Circular 2016/01 "Disclosure — Banks" (Circular), large banks, such as Credit Suisse, are required to describe the major climate-related financial risks and their impact on the business strategy, business model and financial planning. Finally, under the FINMA Guidance 05/2021 on preventing and combating greenwashing, FINMA has communicated which measures FINMA expects regulated financial institutions to take in order to prevent greenwashing of financial products.

US

Banking regulation and supervision

Our US banking operations are subject to extensive federal and state regulation and supervision in the US. Our direct US offices are composed of our New York Branch and representative offices in California. Each of these offices is licensed with, and subject to examination and regulation by, the state banking authority in the state in which it is located.

Our New York Branch is licensed by the New York Superintendent of Financial Services (Superintendent), examined by the Department of Financial Services (DFS), and subject to laws and regulations applicable to a foreign bank operating a New York branch. Under the New York Banking Law, our New York Branch must maintain eligible assets with banks in the state of New York. The amount of eligible assets required, which is expressed as a percentage of third-party liabilities, could increase if our New York Branch is no longer designated as well rated by the Superintendent.

The New York Banking Law authorizes the Superintendent to seize our New York Branch and all of Credit Suisse AG's business and property in New York State (which includes property of our New York Branch, wherever it may be located, and all of Credit Suisse AG's property situated in New York State) under circumstances generally including violations of law, unsafe or unsound practices or insolvency. In liquidating or dealing with our New York Branch's business after taking possession, the Superintendent would only accept for payment the claims of depositors and other creditors (unaffiliated with us) that arose out of transactions with our New York Branch. After the claims of those creditors were paid out of the business and property of the Bank in New York, the Superintendent would turn over the remaining assets, if any, to us or our liquidator or receiver.

Under New York banking law and US federal banking laws, our New York Branch is generally subject to single borrower lending limits expressed as a percentage of the worldwide capital of the

Bank. Under the Dodd-Frank Act, lending limits take into account credit exposure arising from derivative transactions, securities borrowing and lending transactions and repurchase and reverse repurchase agreements with counterparties.

Our US operations are also subject to reporting and examination requirements under US federal banking laws. Our US non-banking operations are subject to examination by the Fed in its capacity as our US umbrella supervisor. The New York Branch is also subject to examination by the Fed and is subject to federal banking law requirements and limitations on the acceptance and maintenance of deposits. The New York Branch is not a member of, and its deposits are not insured by, the FDIC, and it does not engage in retail deposit taking.

US federal banking laws provide that a state-licensed branch (such as the New York Branch) or agency of a foreign bank may not, as a general matter, engage as principal in any type of activity that is not permissible for a federally licensed branch or agency of a foreign bank unless the Fed has determined that such activity is consistent with sound banking practice. In addition, regulations which the Fed may adopt (including at the recommendation of the Financial Stability Oversight Council (FSOC)) could affect the nature of the activities which the Bank (including the New York Branch) may conduct, and may impose restrictions and limitations on the conduct of such activities.

The Fed may terminate the activities of a US branch or agency of a foreign bank if it finds that the foreign bank: (i) is not subject to comprehensive supervision in its home country; (ii) has violated the law or engaged in an unsafe or unsound banking practice in the US; or (iii) for a foreign bank that presents a risk to the stability of the US financial system, the home country of the foreign bank has not adopted, or made demonstrable progress toward adopting, an appropriate system of financial regulation to mitigate such risk.

Credit Suisse Group and the Bank became financial holding companies for purposes of US federal banking law in 2000 and, as a result, may engage in a broad range of non-banking activities in the US, including insurance, securities, private equity and other financial activities, in each case subject to regulatory requirements and limitations. Credit Suisse Group is still required to obtain the prior approval of the Fed (and potentially other US banking regulators) before acquiring, directly or indirectly, the ownership or control of more than 5% of any class of voting shares of (or otherwise controlling) any US bank, bank holding company or many other US depository institutions and their holding companies, and as a result of the Dodd-Frank Act, before making certain acquisitions involving large non-bank companies. The New York Branch is also restricted from engaging in certain tying arrangements involving products and services, and in certain transactions with certain of its affiliates. If Credit Suisse Group or the Bank ceases to be well-capitalized or well-managed under applicable Fed rules, or otherwise fails to meet any of the requirements for financial holding company status, it may be required to discontinue certain financial activities or terminate its New York Branch. Credit Suisse Group's ability to undertake

acquisitions permitted for financial holding companies could also be adversely affected.

Credit Suisse is also subject to the so-called "Volcker Rule," which limits the ability of banking entities to sponsor or invest in certain private equity or hedge funds, broadly defined, and to engage in certain types of proprietary trading for their own account. These restrictions are subject to certain exclusions and exemptions, including with respect to underwriting, market-making, risk-mitigating hedging and certain asset and fund management activities, and with respect to certain transactions and investments occurring solely outside of the US. The Volcker Rule requires banking entities to establish an extensive array of compliance policies, procedures and quantitative metrics reporting designed to ensure and monitor compliance with restrictions under the Volcker Rule. It also requires an annual attestation either by the Chief Executive Officer of the top-tier foreign banking organization or the senior management officer in the US as to the implementation of a compliance program reasonably designed to achieve compliance with the Volcker Rule. Credit Suisse has implemented a Volcker Rule compliance program reasonably designed to satisfy the requirements of the Volcker Rule. The Volcker Rule's implementing regulations are highly complex and may be subject to further rulemaking and regulatory interpretation and guidance.

Fed regulations implementing the Dodd-Frank Act required Credit Suisse to create a single US IHC to hold all of its US subsidiaries with limited exceptions. The IHC requirement does not apply to the New York Branch. Credit Suisse's US IHC is subject to US risk-based capital and leverage requirements that are largely consistent with the Basel III framework published by the BCBS, though they diverge in several important respects due to the requirements of the Dodd-Frank Act, and is subject to capital planning and capital stress testing requirements under the Dodd-Frank Act.

Credit Suisse's US IHC is also subject to additional requirements under the Fed's TLAC framework for IHCs, described above. In addition, both Credit Suisse's US IHC itself and the combined US operations of Credit Suisse (including Credit Suisse's US IHC and the New York Branch) are subject to other prudential requirements, including with respect to liquidity risk management, liquidity stress testing and separate liquidity buffers for each of Credit Suisse's US IHC and the New York Branch. Our US IHC is also subject to the Fed's applicable rules on liquidity coverage ratio (LCR), single counterparty credit limits (SCCL) and, effective as of July 1, 2021, the Net Stable Funding Ratio (NSFR). The SCCL limits our aggregate net credit exposures to any single unaffiliated counterparty based on Tier 1 capital. Our combined US operations (including our US IHC and New York Branch) have certified of substituted compliance with comparable home country rules, but our US IHC is ineligible for the substituted compliance regime and remains subject to a separate SCCL requirement. Under proposals that remain under consideration, the combined US operations of Credit Suisse may become subject to an early remediation regime which could be triggered by risk-based capital,

leverage, stress tests, liquidity, risk management and market indicators.

- Refer to “Liquidity and funding management” in III — Treasury, Risk, Balance sheet and Off-balance sheet for further information on Basel III LCR and NSFR.

A major focus of US policy and regulation relating to financial institutions has been to combat money laundering and terrorist financing and to enforce compliance with US economic sanctions. These laws and regulations impose obligations to maintain appropriate policies, procedures and controls to detect and report money laundering and terrorist financing, verify the identity of customers and beneficial owners as part of a customer due diligence program and comply with economic sanctions. Any failure to maintain and implement adequate programs to combat money laundering and terrorist financing, and any conduct targeted by or in violation of such economic sanctions, laws and regulations, could have serious legal and reputational consequences. Conflicts of law, including those arising from blocking regulations targeting US sanctions, may also raise serious legal risks. We take our obligations to prevent money laundering and terrorist financing in the US and globally and to comply with US economic sanctions very seriously, while appropriately respecting and protecting the confidentiality of clients. We therefore maintain policies, procedures and training intended to ensure compliance with the applicable US anti-money laundering, counter terrorist financing and sanctions laws and regulations. We are also subject to both the anti-bribery and accounting provisions of the US Foreign Corrupt Practices Act. The anti-bribery provisions prohibit the bribery of non-US government officials. The accounting provisions require us to keep accurate books and records and to maintain a system of internal accounting controls.

Broker-dealer and asset management regulation and supervision

Our US broker-dealers are subject to extensive regulation by US regulatory authorities. The SEC is the federal agency primarily responsible for the regulation of broker-dealers, investment advisers and investment companies. In addition, the US Treasury has the authority to promulgate rules relating to US Treasury and government agency securities, the Municipal Securities Rulemaking Board (MSRB) has the authority to promulgate rules relating to municipal securities, and the MSRB also promulgates regulations applicable to certain securities credit transactions. In addition, broker-dealers are subject to regulation by securities industry self-regulatory organizations, including FINRA, and by state securities authorities.

Our US broker-dealers are registered with the SEC and our primary US broker-dealer is registered in all 50 states, the District of Columbia, Puerto Rico and the US Virgin Islands. Our US registered entities are subject to extensive regulatory requirements that apply to all aspects of their business activity, including, where applicable: capital requirements; the use and safekeeping of customer funds and securities; the suitability of customer investments and best interest obligations for certain retail customers;

record-keeping and reporting requirements; employee-related matters; limitations on extensions of credit in securities transactions; prevention and detection of money laundering and terrorist financing; procedures relating to research analyst independence; procedures for the clearance and settlement of trades; and communications with the public.

Our US broker-dealers are also subject to the SEC’s net capital rule, which requires broker-dealers to maintain a specified level of minimum net capital in relatively liquid form. Compliance with the net capital rule could limit operations that require intensive use of capital, such as underwriting and trading activities and the financing of customer account balances and also could restrict our ability to withdraw capital from our broker-dealers. Most of our US broker-dealers are also subject to additional net capital requirements of FINRA and, in some cases, other self-regulatory organizations.

Our securities and asset management businesses include legal entities registered and regulated as a broker-dealer and investment adviser by the SEC. The SEC-registered mutual funds that we advise are subject to the Investment Company Act of 1940. For pension fund customers, we are subject to the Employee Retirement Income Security Act of 1974 and similar state statutes.

The Dodd-Frank Act also requires broader regulation of hedge funds and private equity funds, as well as credit rating agencies.

Derivative regulation and supervision

The CFTC is the federal agency primarily responsible for the regulation of futures commission merchants, commodity pool operators, commodity trading advisors and introducing brokers, among other regulatory categories. With the effectiveness of the Dodd-Frank Act, CFTC oversight was expanded to include persons engaging in a relevant activity with respect to swaps, and registration categories were added for swap dealers and major swap participants. For derivatives activities, these CFTC registrants are subject to industry self-regulatory organizations, such as the National Futures Association (NFA), which has been designated by the CFTC as a registered futures association.

CSI is registered with the CFTC as a swap dealer as a result of its applicable swap activities and is therefore subject to requirements relating to reporting, record-keeping, swap confirmation, swap portfolio reconciliation and compression, mandatory clearing, mandatory on-facility trading, swap trading relationship documentation, external business conduct, risk management, chief compliance officer duties and reports and internal controls. However, where permitted by comparability determinations by the CFTC or in reliance on no-action letters issued by the CFTC, non-US swap dealers, including CSI, can comply with certain requirements through substituted compliance with EU regulations. The CFTC has also granted no-action letters that have applied since the UK’s withdrawal from the EU, which permit CSI to satisfy such requirements by complying with relevant UK regulations.

As a registered swap dealer that is a foreign bank, CSI is subject to the margin rules for uncleared swaps and security-based swaps of the Fed, and CSI likewise is only subject to these rules in connection with its uncleared swaps and security-based swaps with US persons, non-US persons guaranteed by US persons, and certain non-US swap dealer subsidiaries of US persons. The Fed's margin rules have followed a phased implementation schedule. Since March 1, 2017, CSI has been required to comply with variation margin requirements with covered entities under these rules, requiring the exchange of daily mark-to-market margin with all such covered entities. Initial margin requirements began phasing in annually for different counterparties from September 1, 2016, with the final phase of counterparties with material swap exposure subject to initial margin as of September 1, 2022. The broad expansion of initial margin requirements on September 1, 2022 affected a large number of counterparties and required significant outreach and new documentation with existing clients, and will continue to impact similarly situated new clients going forward.

CSI, which is a UK bank provisionally registered with the CFTC as a swap dealer, is now subject to CFTC financial reporting requirements. The CFTC has issued a time-limited no-action letter for swap dealers subject to capital requirements of the OCC, the Board of Governors of the Fed, the FDIC, the Farm Credit Administration or the Federal Housing Finance Agency, which provides that the CFTC's Market Participants Division will not recommend an enforcement action to the CFTC if such swap dealers fail to comply with certain CFTC financial reporting requirements. Although CSI would be able to avail itself of such no-action relief, due to CSI's dual registration with the SEC as a security-based swap dealer, the conditions imposed by the SEC UK substituted compliance order discussed below effectively supersede such no-action relief. Thus, CSI must bear increased cost to comply with the SEC's requirements given that they diverge from CSI's UK financial reporting obligations (for example by requiring it to report certain different financial information).

One of our US broker-dealers, Credit Suisse Securities (USA) LLC, is also registered as a futures commission merchant and subject to the capital, segregation and other requirements of the CFTC and the NFA.

Our asset management businesses include legal entities registered and regulated as commodity pool operators and commodity trading advisors by the CFTC and the NFA and therefore are subject to disclosure, recordkeeping, reporting and other requirements of the CFTC and the NFA.

The Dodd-Frank Act mandates that the CFTC establish, and the CFTC has established, aggregate position limits for certain physical commodity futures contracts and economically equivalent swaps. Position limits on future contracts adopted by the CFTC in 2020 are in effect as of January 1, 2022, and position limits on swaps and related new hedging restrictions adopted by the CFTC are in effect as of January 1, 2023. Overall, the position limit rules may restrict the ability of our asset management businesses

to trade in physical commodity derivatives covered by position limits, restrict the ability of our market-making businesses to provide liquidity in these derivatives to certain types of clients, and generally increase the compliance costs and burdens of our businesses that transact in physical commodity derivatives.

The SEC has finalized rules implementing most of the key derivatives provisions of the Dodd-Frank Act, including security-based swap dealer registration, capital, margin, segregation, internal and external business conduct, recordkeeping and financial reporting, risk mitigation techniques, and transaction reporting rules. Unlike the CFTC, the SEC has not yet finalized rules relating to mandatory clearing or mandatory on-facility trading. Each of CSI and Credit Suisse AG have registered with the SEC as a security-based swap dealer effective November 1, 2021 and are thus subject to the requirements under the SEC rules. While the SEC's rules have largely paralleled many of the CFTC's rules, significant differences between the final CFTC and SEC rules could materially increase the compliance costs associated with, and hinder the efficiency of, our equity and credit derivatives businesses with US persons. For example, significant differences between the cross-border application of SEC and CFTC rules could have such effects. In particular, SEC rules applying public transaction reporting and external business conduct requirements to security-based swaps between non-US persons that are arranged, negotiated or executed by US personnel (ANE transactions) could discourage non-US counterparties from entering into such transactions, especially given the limited extent to which the SEC permits substituted compliance with relevant non-US requirements. While the SEC has issued time-limited relief from its reporting requirements which will last until the earlier of November 8, 2025 or 12 months after the SEC provides notice that its no-action position will expire, the portion of the relief related to assignment of reporting duties does not extend to certain ANE transactions. The SEC has issued final orders for substituted compliance for non-US, SEC-registered security-based swap dealers that are subject to certain UK and Swiss regulations, respectively, which would allow such security-based swap dealers to comply with certain requirements under the SEC rules via compliance with corresponding requirements of the UK and Switzerland, respectively. CSI and Credit Suisse AG avail themselves of such substituted compliance in respect of certain SEC rules, which reduces the extent of their burden of having to reconcile compliance with conflicting SEC and UK or Swiss requirements. However, both orders include extensive conditions and limitations, especially in relation to such matters as counterparty protection and financial reporting requirements, which limit the extent to which CSI and Credit Suisse AG avail themselves of substituted compliance and subject CSI and Credit Suisse AG to additional costs and burdens due to a need to still comply with various SEC rules and conditions.

FATCA

Pursuant to an agreement with the US Internal Revenue Service (IRS) entered into in compliance with FATCA, Credit Suisse is required to identify and provide the IRS with information on accounts held by US persons and certain US-owned foreign

entities, as well as to withhold tax on payments made to foreign financial institutions that are not in compliance with FATCA and account holders who fail to provide sufficient information to classify an account as a US or non-US account. Switzerland and the US have entered into a “Model 2” intergovernmental agreement to implement FATCA, which requires Credit Suisse to disclose account details directly to the US tax authority with the consent of the US clients concerned. Where US clients do not provide Credit Suisse consent to disclose to the IRS, the US authorities must make a group request for this data through normal administrative assistance channels. Group requests are effective for information applying to cases dating from June 30, 2014.

Resolution regime

The Dodd-Frank Act also established an “Orderly Liquidation Authority,” a regime for the orderly liquidation of systemically significant non-bank financial companies, which could potentially apply to certain of our US entities. The Secretary of the US Treasury may under certain circumstances appoint the FDIC as receiver for a failing financial company in order to prevent risks to US financial stability. The FDIC would then have the authority to charter a “bridge” company to which it can transfer assets and liabilities of the financial company, including swaps and other qualified financial contracts, in order to preserve the continuity of critical functions of the financial company. The FDIC has indicated that it prefers a single-point-of-entry strategy, although it retains the ability to resolve individual financial companies. In July 2020, the FDIC and SEC finalized rules that would clarify the application of the Securities Investor Protection Act (SIPA) in a receivership for a systemically significant broker-dealer under the Dodd-Frank Act’s Orderly Liquidation Authority, which could potentially apply to our US broker-dealer. The rules clarify how relevant provisions of SIPA would be incorporated into a proceeding under the Orderly Liquidation Authority, that the Securities Investor Protection Corporation would be appointed as trustee for the broker-dealer, the claims process and the FDIC’s powers as receiver with respect to the transfer of assets of the broker-dealer.

As referred to above, the Dodd-Frank Act and implementing regulations require bank holding companies and companies treated as bank holding companies with total consolidated assets above specified thresholds to submit periodically to the Fed and the FDIC resolution plans describing the strategy for rapid and orderly resolution under the US Bankruptcy Code or other applicable insolvency regimes, though such plans may not rely on the Orderly Liquidation Authority. Our combined US operations are required to file a resolution plan every three years, alternating between a full resolution plan and a less extensive targeted resolution plan containing certain core elements, responses to any targeted information request, and certain changes from the previous full plan. We filed a targeted plan on December 17, 2021. However, as described above among our recent regulatory developments and proposals, the Fed and FDIC announced that they identified two deficiencies in our 2021 targeted plan submission, for which we are required to submit a revised resolution plan. The deadline for our next full plan is July 1, 2024.

Data protection and cybersecurity

In the United States, we are subject to the federal Gramm-Leach-Bliley Act (GLBA) and the DFS Cybersecurity Regulation (discussed below), and some of our operations may be subject to other consumer protection or privacy laws related to the collection, processing and disclosure of consumer personal information, including the California Consumer Privacy Act of 2018 (CCPA) as amended by the California Privacy Rights Act (CPRA). The GLBA, which is enforced by numerous administrative agencies such as the SEC, requires covered financial institutions to explain their information collection and sharing practices to their customers, provide opt-out mechanisms to prevent the disclosure of customer nonpublic personal information to certain nonaffiliated third parties, and safeguard nonpublic personal information by establishing appropriate standards to ensure the security and confidentiality of customer records and protect against anticipated threats or hazards and the unauthorized access to or use of such information. Similarly, the CPRA, which became effective on January 1, 2023 and amends the CCPA with additional data privacy compliance requirements, requires a covered business to provide disclosures to California consumers about such business’ data collection, use and sharing practices and gives California residents expanded rights with respect to the processing of their personal information and sensitive personal information.

Additionally, federal and state regulators, including the DFS, Fed, FINRA and the SEC, continue to increase focus on cybersecurity risks and responses for regulated entities. For example, the DFS continues to update and enforce its Cybersecurity Regulation, which applies to any licensed person, including DFS-licensed branches of non-US banks, and requires each covered entity to assess its specific risk profile periodically and design a program that addresses such risks in a robust fashion. Furthermore, each covered entity must monitor its systems and networks and notify the superintendent of the DFS within 72 hours after it is determined that a material cybersecurity event has occurred. The Fed has also adopted a notification rule effective May 2022 that requires certain banking organizations (including the US operations of non-US banks) to notify the Fed within 36 hours of a determination that a significant computer-security incident has occurred. Similarly, FINRA has identified cybersecurity as a significant risk and will assess firms’ programs to mitigate those risks. In addition, the SEC has issued expanded interpretative guidance that highlights requirements under US federal consumer protection and securities laws that public operating companies must pay particular attention to with respect to cybersecurity risks and incidents.

EU

Financial services regulation and supervision

Our EU banks, investment firms and fund managers are subject to extensive regulation by EU and national regulatory authorities, whose requirements are increasingly imposed under EU directives and regulations aimed at increasing integration and harmonization in the European market for financial services. While regulations

have immediate and direct effect in EU member states, directives must be implemented through national legislation. As a result, the terms of implementation of directives are not always consistent from country to country. In response to the financial crisis and in order to strengthen European supervisory arrangements, the EU established the European Systemic Risk Board, which has macro-prudential oversight of the financial system. The EU has also established three supervisory authorities responsible for promoting greater harmonization and consistent application of EU legislation by national regulators: the EBA, the European Securities and Markets Authority and the European Insurance and Occupational Pensions Authority.

The Basel III capital framework is implemented in the EU by the amendments to the Capital Requirements Directive (CRD) (through the amending directive CRD V) and the CRR II (jointly known as the CRD V package). The CRD V amendments include a new requirement, applicable from December 30, 2023, for non-EU banking groups with two or more institutions and at least EUR 40 billion of assets in the EU to establish an EU intermediate financial holding company that would be subject to consolidated prudential supervision in the EU. In October 2021, the European Commission published legislative proposals for the amendment of the CRR, including through CRR III, and for the amendment of the CRD through an amending Directive (CRD VI). CRR III contains, among other things, proposed reforms to the CRR regarding international prudential standards based on the Basel III framework, including provisions relating to credit risk, credit valuation adjustment risk, operational risk, market risk and the output floor, which were due to be implemented by January 1, 2023 (according to the timeline set by the Basel Committee), but under the proposals would apply from January 1, 2025. The CRD VI proposal includes, among other things, measures relating to supervisory powers, sanctions, and ESG risks and new measures regarding the provision of banking services into the EU by third-country undertakings. The Council of the EU and the European Parliament are currently negotiating to reach a final agreed text.

The revised Markets in Financial Instruments Directive (MiFID II) and the Markets in Financial Instruments Regulation (MiFIR) have introduced enhanced organizational and business conduct standards that apply to investment firms, including a number of Credit Suisse EU entities advising clients within the European Economic Area. In February 2021, the EU enacted a series of “quick-fix” amendments to MiFID II, as a response to the COVID-19 pandemic, relating to product governance, payment for research, client information requirements, energy derivatives markets and best execution requirements. Furthermore, in November 2021, the European Commission adopted two legislative proposals for a new regulation and a new directive amending MiFID II and MiFIR as part of its 2020 Capital Markets Union Action Plan. This legislative package would establish a new process for selecting consolidated tape providers for the EU market; moreover, the proposals would, among other things, make changes to the transparency regimes, update the share and derivative trading obligations and introduce restrictions on payments for order flow.

The Benchmarks Regulation (BMR) introduces new rules aimed at ensuring greater accuracy and integrity of benchmarks in financial instruments. The BMR sets out various requirements which govern the activities of benchmark administrators and submitters. Certain requirements have applied to Credit Suisse in its capacity as a contributor to several critical benchmarks since June 2016. The majority of the other provisions of the BMR have applied since January 2018, although a two-year transition period permitting usage of the EU non-critical benchmark, not yet compliant with the BMR, by EU-supervised entities came to an end on December 2019 and “critical” and third country benchmark providers, including CSI as a UK benchmark administrator, have been given until December 31, 2023 to comply.

In January 2017, the European Commission Delegated Regulation supplementing the European Market Infrastructure Regulation (EMIR) with regard to regulatory technical standards for risk mitigation techniques for OTC derivatives not cleared by a central counterparty (CCP) entered into force. The Delegated Regulation imposes a requirement on financial counterparties and non-financial counterparties above the clearing threshold to collect initial margin and variation margin in respect of non-centrally cleared OTC derivative transactions. In February 2021, the deadline for the implementation of initial margin requirements for firms in the final implementation phases has been extended to September 2021 (phase 5) and September 2022 (phase 6), whereas the temporary exemption from initial margin and variation margin requirements for single-stock equity options and index options (equity options) has been extended to January 4, 2024.

In June 2019, a broad range of amendments to EMIR (through the “EMIR Refit” Regulation) entered into force, including in relation to counterparty classification, clearing, margin and reporting requirements. The amendments include an obligation for clearing members and clients which provide clearing services to provide services under fair, reasonable, non-discriminatory and transparent commercial terms. Further amendments to EMIR (known as “EMIR 2.2”) entered into force in January 2020. EMIR 2.2 focuses on the authorization and supervision of CCPs. Amongst other things, EMIR 2.2 creates new supervisory mechanisms for ensuring more coherent and consistent supervision of EU CCPs as well as a more robust regime for recognizing non-EU CCPs, including through the newly established CCP Supervisory Committee and a tiering system for non-EU CCPs according to their systemic importance to the EU or member states.

On February 8, 2022, the EU Commission adopted a decision to extend equivalence for UK central counterparties (CCPs) until June 30, 2025 only.

On December 7, 2022, the European Commission proposed a legislative package (so-called EMIR 3) to review the central clearing framework in the EU, through certain amendments to EMIR, CRR, CRD, the Investment Firm Directive (IFD), the UCITS Directive and the Money Market Funds (MMF) Regulation with the purpose of making the EU clearing system more attractive, by simplifying regulatory procedures and strengthening the EU

supervisory framework for CCPs, as well as requiring clearing members and clients to hold active accounts at EU CCPs and reducing excessive exposures of EU market participants to systemically important third country CCPs.

Resolution regime

The BRRD establishes a framework for the recovery and resolution of credit institutions and investment firms and applies to all Credit Suisse EU entities, including branches of the Bank. The BRRD introduces requirements for recovery and resolution plans, provides for bank resolution tools, including bail-in for failing banks, and establishes country-specific bank resolution financing arrangements. In addition, as part of their powers over banks in resolution, resolution authorities are empowered to replace a bank's senior management, transfer a bank's rights, assets and liabilities to another person, take a bank into public ownership, and close out and terminate a bank's financial contracts or derivatives contracts. Banks are required to produce recovery plans, describing proposed arrangements to permit them to restore their viability, while resolution authorities are empowered to produce resolution plans which describe how a bank may be resolved in an orderly manner, were it to fail.

Under the BRRD, the resolution authority can increase the capital of a failing or failed bank through bail-in: i.e., the write-down, reduction or cancellation of liabilities held by unsecured creditors, or their conversion to equity or other securities. All of a bank's liabilities are subject to bail-in, unless explicitly excluded by the BRRD because they are, for example, covered deposits, secured liabilities, or liabilities arising from holding client assets or client money.

The BRRD also requires banks to hold a certain amount of bail-inable loss-absorbing capacity at both individual and consolidated levels. This requirement is known as the MREL, and is conceptually similar to the TLAC framework.

In June 2019, amendments to BRRD (through BRRD II) entered into force. EU member states were required to adopt national legislative measures necessary to comply with BRRD II by December 2020. BRRD II contains amendments to the existing EU regime relating to MREL to align it with the TLAC standard and to introduce, among other things, changes to the contractual recognition of bail-in and a new moratorium power for competent authorities. The relevant amendments to the CRR relating to the indirect subscription of internal MREL-eligible instruments within resolution groups will apply from January 1, 2024 and the amendments of the BRRD relating to the indirect subscription of internal MREL-eligible instruments within resolution groups must be implemented by member states by November 15, 2023, while the other amendments to the BRRD and CRR applied from November 14, 2022.

Anti-money laundering regulations

In July 2021, the European Commission presented a package of legislative proposals to strengthen the EU's anti-money laundering and countering the financing of terrorism (AML/CFT) rules. The legislative package, which is being discussed by the European Parliament and Council, introduces a new EU authority that will transform AML/CFT supervision and that should be operational in 2024. Further, a new directive, the Sixth Directive on AML/CTF (AMLD6), is expected to replace the existing Directive 2015/849/EU.

Investment services regulation

Since July 1, 2019, following a decision by the European Commission not to extend the recognition of the equivalence of the Swiss legal and supervisory framework for trading venues with that of the EU, EU investment firms are, in principle, prohibited from trading in certain equity securities of companies domiciled in Switzerland on Swiss trading venues. Likewise, since July 1, 2019, under measures taken by the Swiss Federal Department of Finance, trading venues domiciled in the EU are effectively prohibited from offering or facilitating trading in certain equity securities of Swiss companies.

UK-EU relationship

On June 23, 2016, voters in the UK voted to leave the EU. Following extensive negotiations with the EU on the terms of its withdrawal, the UK ceased to be a member of the EU on January 31, 2020, and after a transitional period ending on December 31, 2020, EU law, including financial services passporting, no longer applies in the UK. On December 24, 2020, the UK and the EU announced that they had agreed on a Trade and Cooperation Agreement (TCA), which entered into full application in May 2021, following the ratification by the UK and EU, an Agreement between the UK and the European Atomic Energy Community for Cooperation on the Safe and Peaceful Uses of Nuclear Energy and an Agreement concerning Security Procedures for Exchanging and Protecting Classified Information. The TCA generally does not cover financial services. On March 26, 2021, the EU and the UK announced that they had completed negotiations in relation to the "non-binding memorandum of understanding governing the regulatory dialogue" for regulatory cooperation in financial services. The memorandum of understanding has not yet been formally published or signed. Although equivalence may be one of the topics discussed in any regulatory dialogue, the decision to grant equivalence is unilateral and not subject to bilateral negotiation. There can be no assurance that the EU will grant equivalence to the UK financial services regime and (even if equivalence is granted) any such decision may be revoked at any time. Notably, on February 8, 2022 the EU Commission adopted a decision to extend equivalence for UK central counterparties (CCPs) until June 30, 2025 only.

UK

Banking regulation and supervision

The principal statutory regulators of financial services activity in the UK are the PRA, a part of the Bank of England, which is responsible for the micro-prudential regulation of banks and larger investment firms, and the FCA, which regulates markets, the conduct of business of all financial firms, and the prudential regulation of firms not regulated by the PRA. In addition, the Financial Policy Committee of the Bank of England is responsible for macro-prudential regulation.

The body of EU law, as it stood at the end of the transition period, has largely been retained in UK law in the immediate term, the UK Treasury exercising certain statutory powers to adapt retained EU law relating to financial services, through statutory instruments. The statutory instruments did not make policy changes, but rather were intended to reflect the UK's new position outside the EU.

This includes certain parts of CRR (on-shored as UK CRR). In addition, the PRA has implemented rules corresponding to certain parts of CRR II that were not in force before the UK's withdrawal from the EU. These rules became effective on January 1, 2022. Accordingly, at present, the regulatory regime for banks operating in the UK largely conforms to required EU standards, including compliance with capital adequacy standards, customer protection requirements, conduct of business rules and anti-money laundering rules.

The UK intends to continue to adapt its legislative framework in the upcoming years, with significant legislative change, for example as announced in the Wholesale Markets Review and the Edinburgh Reforms. CSI, Credit Suisse (UK) Limited and Credit Suisse AG, London Branch are authorized to take deposits. We also have a number of entities authorized to conduct investment business and asset management activities. In deciding whether to grant authorization, the PRA must first determine whether a firm satisfies the threshold conditions for authorization, which include suitability and the requirement for the firm to be fit and proper. The PRA is also responsible for approval of certain models with respect to regulatory capital requirements of our UK subsidiaries.

Our London Branch is required to comply principally with Swiss home country regulation. However, as a response to the global financial crisis, the PRA made changes to its prudential supervision rules in its rulebook, applying a principle of "self-sufficiency," such that CSI, CSSEL and Credit Suisse (UK) Limited are required to maintain adequate liquidity resources, under the day-to-day supervision of the entity's senior management, held in a custodian account in the name of the entity, unencumbered and attributed to the entity balance sheet. In addition, the PRA requires CSI, CSSEL and Credit Suisse (UK) Limited to maintain a minimum capital ratio and to monitor and report large exposures in accordance with UK CRR and PRA rules.

The UK has a stringent regulatory regime for senior managers and specified risk takers in a bank or PRA authorized investment firm; it also makes reckless misconduct in the management of a bank a criminal offense. These rules impact our UK entities, such as CSI and CSSEL.

Broker-dealer and asset management regulation and supervision

Our London bank and broker-dealer subsidiaries are authorized under the Financial Services and Markets Act 2000 (FSMA) and are subject to regulation by the PRA and FCA. In addition, our asset management companies are authorized under the FSMA and are subject to regulation by the FCA. In deciding whether to authorize an investment firm in the UK, the PRA and FCA will consider the threshold conditions, which include suitability and the general requirement for a firm to be fit and proper. The PRA and FCA are responsible for regulating most aspects of an investment firm's business, including its regulatory capital, sales and trading practices, use and safekeeping of customer funds and securities, record-keeping, margin practices and procedures, registration standards for individuals carrying on certain functions, anti-money laundering systems and periodic reporting and settlement procedures.

Operational resilience

From March 31, 2022, the UK operational resilience framework requires firms to identify their important business services, set impact tolerances for such business services and commence mapping and testing against severe but plausible scenarios. Under the rules of this framework, firms are expected to introduce any required resilience reinforcements to remain within their impact tolerances by March 31, 2025. These rules impact our UK entities, including CSI, CSSEL, Credit Suisse (UK) Limited and Credit Suisse AG, London Branch.

Resolution regime

The UK legislation related to the recovery and resolution of credit institutions such as Credit Suisse consists of the special resolution regime (SRR) and the PRA recovery and resolution framework, which implemented the BRRD in the UK. The UK Banking Act and the related secondary legislation govern the application of the SRR, which grants the UK authorities powers to handle systemically important firms, such as banks, in case of highly likely failure. The UK resolution authority is the Bank of England which is empowered, among other things, to direct firms and their parent undertakings to address or remove barriers to resolvability, to enforce resolution actions and to carry out resolvability assessments of credit institutions. Separately, the PRA has the power to require parent undertakings of firms subject to this regime to take actions such as the preparation and submission of group recovery plans or the facilitation of the use of resolution powers.

The Bank of England set out its approach to resolvability in a statement of policy issued in 2019, which forms part of its “resolvability assessment framework” (RAF). Among other things, the RAF sets out the outcomes firms must, as a minimum, be able to achieve to be considered resolvable. In May 2021, the PRA published amended rules, and an associated supervisory statement, regarding operational continuity in resolution (OCIR), which became effective on January 1, 2023, alongside changes made by the Bank of England to the RAF statement of policy. The amended OCIR requirements, and related changes to the RAF statement of policy, were designed to improve firms’ resolvability. Further recent measures introduced by the PRA include its statement of policy on trading activity wind-down that will become effective from March 3, 2025. The statement of policy sets out the PRA’s expectation that firms engaged in trading activities that may affect the financial stability of the UK should have capabilities that will allow them to execute a full or partial wind-down of their trading activities in an orderly fashion.

Financial crime

We are also subject, as a result of our operations in the UK, to UK financial crime legislation including the Bribery Act 2010, the Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 and economic sanctions imposed by the Office of Financial Sanctions Implementation of the UK government. In addition, as part of the FCA’s responsibility to ensure the integrity of the UK financial markets, it requires all authorized firms in the UK, including CS entities, to have systems and controls in place to mitigate the risk that they might be used to commit financial crime.

Risk factors

Our businesses are exposed to a variety of risks that could adversely affect our results of operations and financial condition, including, among others, those described below, and many of these factors are beyond our control. Any of the risk factors described below, either by itself or together with other risk factors, could materially and adversely affect our businesses, results of operations and financial condition.

Liquidity risk

Liquidity, or ready access to funds, is essential to all our businesses. We seek to maintain available liquidity to meet our obligations in a stressed liquidity environment.

- Refer to “Liquidity and funding management” in III — Treasury, Risk, Balance sheet and Off-balance sheet for information on our liquidity management.

Our liquidity could be impaired if we were unable to access the capital markets, sell our assets or if our liquidity costs increase

Our ability to borrow on a secured or unsecured basis and the cost of doing so can be affected by increases in interest rates or credit spreads, the availability of credit, regulatory requirements relating to liquidity, or the market perceptions of risk relating to us, certain of our counterparties or the banking sector as a whole, including our perceived or actual creditworthiness. An inability to obtain financing in the unsecured long-term or short-term debt capital markets, or to access the secured lending markets, could have a substantial adverse effect on our liquidity. In challenging credit markets, our funding costs may increase or we may be unable to raise funds to support or expand our businesses, adversely affecting our results of operations.

- Refer to “Regulatory framework” and “Regulatory developments” in III — Treasury, Risk, Balance sheet and Off-balance sheet — Liquidity and funding management for further information.

If we are unable to raise needed funds in the capital markets (including through offerings of equity, regulatory capital securities and other debt), we may need to liquidate unencumbered assets to meet our liabilities. In a time of reduced liquidity, we may be unable to sell some of our assets, or we may need to sell assets at depressed prices, which in either case could adversely affect our results of operations and financial condition.

Our businesses rely significantly on our deposit base for funding

Our businesses benefit from short-term funding sources, including primarily demand deposits, inter-bank loans, time deposits and cash bonds. Although deposits have been, over time, a stable source of funding, this may not continue, and we may experience, as we did in the fourth quarter of 2022, deposit outflows at levels that substantially exceed rates typically incurred. Deposits could also be negatively affected by clients instead choosing to seek deposits or securities products offering higher yields, clients switching to an alternative financial institution which they perceive to be safer or changes in client spending behavior as a result of inflation or other economic developments resulting in an increased need for cash. In any such case, our liquidity position could be adversely affected, and we might be unable to meet deposit

withdrawals on demand or at their contractual maturity, to repay borrowings as they mature or to fund new loans, investments and businesses.

Significant negative consequences of liquidity issues and outflows in assets under management in the fourth quarter of 2022

As previously disclosed, early in the fourth quarter of 2022, Credit Suisse began experiencing significantly higher withdrawals of cash deposits, non-renewal of maturing time deposits and net asset outflows at levels that substantially exceeded the rates incurred in the third quarter of 2022. These outflows stabilized to much lower levels but had not yet reversed as of the date of this report. These outflows led us to partially utilize liquidity buffers at the Group and legal entity level, and we fell below certain legal entity-level regulatory requirements.

These circumstances have exacerbated and may continue to exacerbate the risks described above in this section. In addition, this reduction in assets under management is expected to lead to reduced net interest income and recurring commissions and fees for the Group, which in turn could affect our ability to achieve our capital position objectives. A failure to reverse these outflows and to restore our assets under management and deposits could have a material adverse effect on our results of operations and financial condition.

- Refer to “Liquidity issues in the fourth quarter of 2022” and “Outflows in assets under management in the fourth quarter of 2022” in II — Operating and financial review — Credit Suisse — Other information for further information.

Changes in our ratings may adversely affect our business

Ratings are assigned by rating agencies and are subject to such agencies’ ongoing review in light of various firm-specific factors and factors relating to the financial services industry as a whole. Firm-specific factors that might influence their ratings include our financial strength, performance, operations and strategy, including the implementation of our new strategic direction, as well as the consequences of the significant liquidity issues and asset under management outflows we experienced in the fourth quarter of 2022. Factors relevant to the financial services industry as a whole, which includes factors outside of our control, that might influence their ratings include potential declines in profitability, asset quality deterioration, asset price volatility, risk and governance controls, capital adequacy, the impact from any potential easing or enhancement of regulatory requirements and challenges from increased costs related to compliance and litigation. In May 2022, Standard and Poor’s Global Ratings Europe Limited (S&P) lowered its long-term issuer credit ratings, and Fitch Ratings Limited (Fitch) lowered its long-term issuer default ratings of Credit Suisse AG and Credit Suisse Group AG by one notch. In August 2022, Moody’s Investors Service (Moody’s) lowered its long-term senior unsecured debt and deposit ratings of Credit Suisse AG and its senior unsecured debt ratings of Credit Suisse Group AG by one notch, and Fitch lowered its long-term issuer default ratings of Credit Suisse Group AG and the long- and short-term issuer default ratings of Credit Suisse AG, in each case by one notch. On November 1, 2022, Moody’s downgraded the long-term senior unsecured debt and deposit ratings of Credit Suisse AG

by one notch, and also downgraded all the short-term ratings by one notch and maintained the “negative” outlook on all ratings. S&P downgraded the long-term issuer credit ratings of Credit Suisse Group AG and the long- and short-term issuer credit ratings of Credit Suisse AG, in each case by one notch on November 1, 2022. The outlook on these ratings was revised from “negative” to “stable.” Rating agencies may lower, indicate their intention to lower or withdraw their ratings at any time and there is no assurance that our credit ratings will not be put on “negative” outlook or be downgraded in the future. In addition, any such “negative” outlook or downgrade could occur at times when our ability to respond may be limited due to broader market instability and/or lower general investor confidence.

These downgrades in our ratings increasingly elevated our borrowing costs and limited our ability to renew maturing short-term funding and to access short-term funding markets. The downgrades have increased our cost of capital and adversely affected and may in the future continue to adversely affect the ability of our businesses to sell or market their products, engage in business transactions, particularly financing and derivative transactions, and retain our clients. For example, some of our clients and counterparties could have ratings limitations on their permissible counterparties, which we may or may not be aware of, and certain clients and counterparties may choose to re-assess their business relationships with us and/or limit certain contracts or market instruments in response to any ratings downgrades. If our trading or other agreements are terminated in relation to a credit rating downgrade, we may sustain losses or reductions to our liquidity that require us to seek other financing sources or make significant payments, whether in cash or securities. Additionally, although certain potential impacts stem from our contracts and are therefore quantifiable, other adverse effects of a credit rating downgrade may not currently be known to us and may be dependent on various factors and assumptions, such as the relationship between long- and short-term credit ratings and how clients, investors and counterparties behave. Further downgrades, including any downgrade below investment grade, could therefore negatively impact our operating results and financial position.

- Refer to “Credit ratings” in III — Treasury, Risk, Balance sheet and Off-balance sheet — Liquidity and funding management — Funding management for further information relating to credit ratings

Archeegos and SCFF-related risks

Significant negative consequences of the Archeegos and supply chain finance funds matters

As previously reported, Credit Suisse incurred a net charge of CHF 4.8 billion in 2021 in respect of the Archeegos matter. Credit Suisse also previously reported that it is reasonably possible that it will incur a loss in respect of the supply chain finance funds (SCFF) matter, though it is not yet possible to estimate the full extent of any loss. However, the ultimate cost of resolving the SCFF matter may be material to our operating results.

A number of regulatory and other inquiries, investigations, enforcement and other actions have been initiated or are being considered in respect of each of these matters. In addition, we have been required by FINMA to take certain capital and related actions, as well as certain remedial measures. Furthermore, we are subject to various litigation claims and criminal complaints in respect of these matters and we may become subject to additional litigation, disputes or other actions.

- Refer to “Note 40 — Litigation” in VI — Consolidated financial statements — Credit Suisse Group for further information.

On July 29, 2021, we published the report based on the independent external investigation into Archeegos, which found, among other things, a failure to effectively manage risk in the Investment Bank’s prime services business by both the first and second lines of defense as well as a lack of risk escalation. On February 10, 2022, we announced that the separate report related to the SCFF matter has been completed and that the findings have been made available to the Board of Directors and the report was shared with FINMA.

The combined effect of these two matters, including the material loss incurred in respect of Archeegos, may have other material adverse consequences for us, including negative effects on our business and operating results from actions that we have taken and may be required or decide to take in the future in response to these matters. In addition, the Board of Directors has conducted a review of the Group’s business strategy and risk appetite. There can be no assurance that these or other measures instituted to manage related risks will be effective in all instances. The changes resulting from the implementation of our strategic initiatives will also entail the incurrence of certain costs and charges, such as the ones we have previously reported.

There can be no assurance that any additional losses, damages, costs and expenses, as well as any further regulatory and other investigations and actions or any further downgrade of our credit ratings, will not be material to us, including from any impact on our business, financial condition, results of operations, prospects, liquidity, capital position or reputation. For example, we have suffered and may continue to suffer reputational harm and reductions in certain areas of our business, such as outflows of assets, attributable, at least in part, to these matters. The ongoing effect of these matters, and this harm and these reductions, can continue to affect our business overall, including our ability to attract and retain customers, clients, investors and employees and to conduct business transactions with our counterparties. Our employee attrition has been higher over the last year, undoubtedly owing at least in part to these matters. While steps we have taken in response to the Archeegos and SCFF matters are designed to reduce the Group’s risks, some of these changes will constrain certain areas of our business, thereby impacting negatively our results of operations. These challenges are taking place in the context of worsening macroeconomic and market conditions, potentially amplifying some of the negative consequences noted above. The foregoing challenges may also make it more difficult to implement our strategic initiatives announced on October 27, 2022, as well as achievement of the targets and objectives associated with those initiatives.

Market and credit risks

We may incur significant losses on our trading and investment activities due to market fluctuations and volatility

Although we continue to strive to reduce our balance sheet and have made significant progress in implementing our strategy over the past few years, we also continue to maintain large trading and investment positions and hedges in the debt, currency and equity markets, and in private equity, hedge funds, real estate and other assets. These positions could be adversely affected by volatility in financial and other markets, that is, the degree to which prices fluctuate over a particular period in a particular market, regardless of market levels. To the extent that we own assets, or have net long positions, in any of those markets, a downturn in those markets could result in losses from a decline in the value of our net long positions. Conversely, to the extent that we have sold assets that we do not own, or have net short positions, in any of those markets, an upturn in those markets could expose us to potentially significant losses as we attempt to cover our net short positions by acquiring assets in a rising market. Market fluctuations, downturns and volatility can adversely affect the fair value of our positions and our results of operations. Adverse market or economic conditions or trends have caused, and in the future may cause, a significant decline in our net revenues and profitability.

Our businesses and organization are subject to the risk of loss from adverse market conditions and unfavorable economic, monetary, political, legal, regulatory and other developments in the countries in which we operate

As a global financial services company, our businesses could be materially adversely affected by unfavorable global and local economic and market conditions, including the risk of global recession, as well as geopolitical events and other developments in Europe, the US, Asia and elsewhere around the world (even in countries in which we do not currently conduct business). For example, the protraction or escalation of the conflict related to Russia's invasion of Ukraine could lead to additional regional and/or global instability, as well as adversely affect commodity and other financial markets or economic conditions. The US, EU, UK, Switzerland and other countries have imposed, and may further impose, financial and economic sanctions and export controls targeting certain Russian entities, individuals, and/or sectors, and we may face additional restrictions on engaging with certain consumer and/or institutional businesses due to any current or impending sanctions and laws (including any Russian countermeasures), which could adversely affect our business. Further, numerous countries have experienced severe economic disruptions particular to that country or region, including extreme currency fluctuations, increased energy costs, high inflation, or low or negative economic growth, among other negative conditions, which could have an adverse effect on our operations and investments. Global equity markets continued their downward trend in 2022, and volatility increased. The economic environment may experience further volatility, increased inflation or other negative economic impacts.

- Refer to “Regulation and supervision” and “Key risk developments” in III — Treasury, Risk, Balance sheet and Off-balance sheet — Risk management for further information.

In Europe, political uncertainty, including in relation to the UK's withdrawal from the EU, remains elevated and could cause disruptions in market conditions in Europe and around the world and could further have an adverse impact on financial institutions, including us. The economic and political impact of the UK leaving the EU, including on investments and market confidence in the UK and the remainder of the EU, may adversely affect our future results of operations and financial condition.

Following the UK's withdrawal from the EU, our legal entities that are organized or operate in the UK face limitations on providing services or otherwise conducting business in the EU, which require us to implement significant changes to our legal entity structure. In addition, as part of our overarching legal entity simplification program, the Group has developed a comprehensive EU entity strategy and is also defining a strategy to optimize the legal entity structure across regions, including expediting the closure of redundant entities. There are a number of uncertainties that may affect the feasibility, scope and timing of the intended results, including the outcome of the ongoing negotiations between the EU and the UK for a framework for regulatory cooperation on financial services and the operation of their unilateral and autonomous processes for recognizing each other's regulatory framework as equivalent. Finally, future significant legal and regulatory changes, including possible regulatory divergence between the EU and the UK, affecting us and our operations may require us to make further changes to our legal structure. The implementation of these changes has required, and may further require, the investment of significant time and resources and has increased, and may potentially further increase, operational, regulatory, compliance, capital, funding and tax costs as well as our counterparties' credit risk.

- Refer to “UK-EU relationship” in Regulation and supervision — Regulatory framework — EU and “Corporate Governance framework” in IV — Corporate Governance — Overview for further information.

The environment of political uncertainty in countries and regions in which we conduct business may also affect our business. The increased popularity of nationalist and protectionist sentiments, including implementation of trade barriers and restrictions on market access, may result in significant shifts in national policy and a decelerated path to further European integration. Similar uncertainties exist regarding the impact of supply chain disruptions, labor shortages, wage pressures, rising inflation, the ongoing conflict related to Russia's invasion of Ukraine and the continuing COVID-19 pandemic, any of which may be disruptive to global economic growth and may also negatively affect our business.

In the past, the low interest rate environment has adversely affected our net interest income and the value of our trading and non-trading fixed income portfolios, and resulted in a loss of customer deposits as well as an increase in the liabilities relating to our existing pension plans. Furthermore, while interest rates may remain relatively lower for a longer period of time, major central banks have begun increasing or signaling that they expect to

increase interest rates in response to rising inflation concerns. Future changes in interest rates, including increasing interest rates or changes in the current short-term interest rates in our home market, could adversely affect our businesses and results. In addition, movements in equity markets have affected the value of our trading and non-trading equity portfolios, while the historical strength of the Swiss franc has adversely affected our revenues and net income and exposed us to currency exchange rate risk. Further, diverging monetary policies among the major economies in which we operate, in particular among the Fed, ECB and SNB, may adversely affect our results.

Such adverse market or economic conditions may negatively impact our investment banking and wealth management businesses and adversely affect net revenues we receive from commissions and spreads. These conditions may result in lower investment banking client activity, adversely impacting our financial advisory and underwriting fees. Such conditions may also adversely affect the types and volumes of securities trades that we execute for customers. Cautious investor behavior in response to adverse conditions could result in generally decreased client demand for our products, which could negatively impact our results of operations and opportunities for growth. Unfavorable market and economic conditions have affected our businesses in the past, including the low interest rate environment, continued cautious investor behavior and changes in market structure. These negative factors could be reflected, for example, in lower commissions and fees from our client-flow sales and trading and asset management activities, including commissions and fees that are based on the value of our clients' portfolios.

Our response to adverse market or economic conditions may differ from that of our competitors and an investment performance that is below that of competitors or asset management benchmarks could also result in a decline in assets under management and related fees, making it harder to attract new clients. There could be a shift in client demand away from more complex products, which may result in significant client deleveraging, and our results of operations related to wealth management and asset management activities could be adversely affected. Adverse market or economic conditions, including as a result of the COVID-19 pandemic or Russia's invasion of Ukraine could exacerbate such effects.

In addition, several of our businesses engage in transactions with, or trade in obligations of, governmental entities, including supranational, national, state, provincial, municipal and local authorities. These activities can expose us to enhanced sovereign, credit-related, operational and reputational risks, which may also increase as a result of adverse market or economic conditions. Risks related to these transactions include the risks that a governmental entity may default on or restructure its obligations or may claim that actions taken by government officials were beyond the legal authority of those officials, which have in the past and may in the future adversely affect our financial condition and results of operations.

Adverse market or economic conditions could also affect our private equity investments. If a private equity investment substantially declines in value, we may not receive any increased share of the income and gains from such investment (to which we are entitled in certain cases when the return on such investment exceeds certain threshold returns), may be obligated to return to investors previously received excess carried interest payments and may lose our pro rata share of the capital invested. In addition, it could become more difficult to dispose of the investment, as even investments that are performing well may prove difficult to exit.

In addition to the macroeconomic factors discussed above, other political, social and environmental developments beyond our control, including terrorist attacks, cyber attacks, military conflicts, diplomatic tensions, including any escalation of tensions between China and Taiwan, economic or political sanctions, disease pandemics, war, political or civil unrest and widespread demonstrations, climate change, natural disasters, or infrastructure issues, such as transportation or power failures, could have a material adverse effect on economic and market conditions, market volatility and financial activity, with a potential related effect on our businesses and results. In addition, as geopolitical tensions rise, compliance with legal or regulatory obligations in one jurisdiction may be seen as supporting the law or policy objectives of that jurisdiction over another jurisdiction, creating additional risks for our business.

- Refer to “Non-financial risk” in III — Treasury, Risk, Balance sheet and Off-balance sheet — Risk management — Risk coverage and management for further information.

Uncertainties regarding the discontinuation of benchmark rates may adversely affect our business, financial condition and results of operations and are requiring adjustments to our agreements with clients and other market participants, as well as to our systems and processes

In July 2017, the FCA, which regulates LIBOR, announced that it will no longer compel banks to submit rates for the calculation of the LIBOR benchmark after year-end 2021. Other IBORs may also be permanently discontinued or cease to be representative. As of January 1, 2022, all CHF, EUR, GBP and JPY LIBOR settings and the one-week and two-month USD LIBOR settings are no longer available on a representative basis. The remaining USD LIBOR settings will permanently cease to be provided by any administrator or will no longer be representative immediately after June 30, 2023, providing additional time to address the legacy contracts that reference such USD LIBOR settings. The FCA has also proposed to continue requiring the publication of synthetic USD LIBOR until September 30, 2024, potentially providing more time to remediate legacy contracts, although such proposal is yet to be confirmed. However, there is no certainty that the extended period of time to transition to ARRs is sufficient given how widely USD LIBOR is referenced. A number of initiatives have been developed to support the transition, such as the publication by ISDA of Supplement number 70 to the 2006 ISDA Definitions (IBOR Supplement) and the accompanying IBOR Protocol. Although these measures may help facilitate the derivatives markets' transition away from IBORs, our clients and other market

participants may not adhere to the IBOR Protocol or may not be otherwise willing to apply the provisions of the IBOR Supplement to relevant documentation. Furthermore, no similar multilateral mechanism exists to amend legacy loans or bonds, many of which must instead be amended individually, which may require the consent of multiple lenders or bondholders. As a consequence, there can be no assurance that market participants, including Credit Suisse, will be able to successfully modify all outstanding IBOR referencing contracts or otherwise be sufficiently prepared for the uncertainties resulting from cessation, potentially leading to disputes. Legislation has been proposed or enacted in a number of jurisdictions to address affected contracts without robust fallback provisions. For example, the United States has enacted the Adjustable Interest Rate (LIBOR) Act of 2021 (LIBOR Act) providing for the replacement of USD LIBOR-based benchmarks in certain agreements by operation of law. However, the scope of this legislation is limited. In addition, it is uncertain whether, when and how other jurisdictions will enact similar legislation. Furthermore, the terms and scope of existing and future legislative solutions may be inconsistent and potentially overlapping.

Credit Suisse has identified a significant number of its liabilities and assets, including credit instruments such as credit agreements, loans and bonds, linked to IBORs across its businesses that require transition to ARR. Aside from a small amount of legacy contracts that currently rely on synthetic LIBOR, Credit Suisse's legacy non-USD LIBOR portfolio has been remediated, either by active transition to ARRs, or by adding robust fallback provisions intended to govern the transition to ARRs upon the cessation of LIBORs. While Credit Suisse has a significant level of liabilities and assets linked to USD LIBOR, derivatives make up the majority of the legacy portfolio, and many of our derivative counterparties have already adhered to the IBOR Protocol. Further, under the final rules adopted by the Fed pursuant to the LIBOR Act, the "Fallback Rate (SOFR)" as defined in the IBOR Protocol will apply to derivative contracts governed by US law that reference overnight and one-, three-, six- and 12-month tenors of USD LIBOR and do not have suitable fallback provisions and provide permanent transition out of LIBOR. Non-US law contracts may benefit from the proposed "synthetic" (but time limited) USD LIBOR that the FCA is currently consulting on. The discontinuation of IBORs or future changes in the administration of benchmarks could result in adverse consequences to the return on, value of and market for securities, credit instruments and other instruments whose returns or contractual mechanics are linked to any such benchmark, including those issued and traded by the Group. For example, ARR-linked products may not provide a term structure and may calculate interest payments differently than benchmark-linked products, which could lead to greater uncertainty with respect to corresponding payment obligations. The transition to ARRs also raises concerns of liquidity risk, which may arise due to slow acceptance, take-up and development of liquidity in products that use ARRs, leading to market dislocation or fragmentation. It is also possible that such products will perform differently to IBOR products during times of economic stress, adverse or volatile market conditions and across the credit and economic cycle, which may impact the value, return on and

profitability of our ARR-based assets. The transition to ARRs also requires a change in contractual terms of existing products currently linked to IBORs.

Further, the replacement of IBORs with an ARR in existing securities and other contracts, or in internal discounting models, could negatively impact the value of and return on such existing securities, credit instruments and other contracts and result in mispricing and additional legal, financial, tax, operational, market, compliance, reputational, competitive or other risks to us, our clients and other market participants. For example, we may face a risk of litigation, disputes or other actions from clients, counterparties, customers, investors or others regarding the interpretation or enforcement of related contractual provisions or if we fail to appropriately communicate the effect that the transition to ARRs will have on existing and future products. Further, litigation, disputes or other action may occur as a result of the interpretation or application of legislation, in particular, if there is an overlap between legislation introduced in different jurisdictions. In addition, the transition to ARRs requires changes to our documentation, methodologies, processes, controls, systems and operations, which has resulted and may continue to result in increased effort and cost. There may also be related risks that arise in connection with the transition. For example, our hedging strategy may be negatively impacted or market risk may increase in the event of different ARRs applying to our assets compared to our liabilities. In particular, our swaps and similar instruments that reference an IBOR and that are used to manage long-term interest rate risk related to our credit instruments could adopt different ARRs than the related credit instruments, resulting in potential basis risk and potentially making hedging our credit instruments more costly or less effective.

- Refer to "Replacement of interbank offered rates" in II — Operating and financial review — Credit Suisse — Other information for further information.

We may incur significant losses in the real estate sector

We finance and acquire principal positions in a number of real estate and real estate-related products, primarily for clients, and originate loans secured by commercial and residential properties. As of December 31, 2022, our real estate loans as reported to the SNB totaled approximately CHF 143.7 billion. We also securitize and trade in commercial and residential real estate and real estate-related whole loans, mortgages and other real estate and commercial assets and products, including CMBS and RMBS. Our real estate-related businesses and risk exposures could be adversely affected by any downturn in real estate markets, other sectors and the economy as a whole. Should these conditions persist or deteriorate, they could create additional risk for our commercial real estate-related businesses. In addition, the risk of potential price corrections in the real estate market in certain areas of Switzerland could have a material adverse effect on our real estate-related businesses.

Holding large and concentrated positions can expose us to large losses

Concentrations of risk can expose us to large losses given that we have provided or may in the future provide sizeable loans to, conduct sizeable transactions with and own securities holdings in certain customers, clients, counterparties, industries, countries or any pool of exposures with a common risk characteristic. Decreasing economic

growth in any sector in which we make significant commitments, for example, through underwriting, lending or advisory services, could also negatively affect our net revenues. In addition, a significant deterioration in the credit quality of one of our borrowers or counterparties could lead to concerns about the creditworthiness of other borrowers or counterparties in similar, related or dependent industries. This type of interrelationship could exacerbate our credit, liquidity and market risk exposure and potentially cause us to incur losses.

We have significant risk concentration in the financial services industry as a result of the large volume of transactions we routinely conduct with broker-dealers, banks, funds and other financial institutions, and in the ordinary conduct of our business, we can be subject to risk concentration with a particular counterparty. In addition, we, and other financial institutions, may pose systemic risk in a financial or credit crisis, and may be vulnerable to market sentiment and confidence, particularly during periods of severe economic stress. We, like other financial institutions, continue to adapt our practices and operations in consultation with our regulators to better address an evolving understanding of our exposure to, and management of, systemic risk and risk concentration to financial institutions. Regulators continue to focus on these risks, and there are numerous new regulations and government proposals, and significant ongoing regulatory uncertainty, about how best to address them. There can be no assurance that the changes in our industry, operations, practices and regulation will be effective in managing these risks.

- Refer to “Regulation and supervision” for further information.

Risk concentration can cause us to suffer losses even when economic and market conditions are generally favorable for others in our industry.

Our hedging strategies may not prevent losses

If any of the variety of instruments and strategies we use to hedge our exposure to various types of risk in our businesses is not effective, we can incur losses. We may be unable to purchase hedges or be only partially hedged, or our hedging strategies may not be fully effective in mitigating our risk exposure in all market environments or against all types of risk.

Market risk may increase the other risks that we face

In addition to the potentially adverse effects on our businesses described above, market risk could exacerbate the other risks that we face. For example, if we were to incur substantial trading losses, our need for liquidity could rise sharply while our access to liquidity could be impaired. In conjunction with another market downturn, our customers and counterparties could also incur substantial losses of their own, thereby weakening their financial condition and increasing our credit and counterparty risk exposure to them.

We may suffer significant losses from our credit exposures

Our businesses are subject to the fundamental risk that borrowers and other counterparties will be unable to perform their obligations. Our credit exposures exist across a wide range of transactions that we engage in with a large number of clients and counterparties, including lending relationships, commitments and letters of credit,

as well as derivative, currency exchange and other transactions. Our exposure to credit risk can be exacerbated by adverse economic or market trends, as well as increased volatility in relevant markets or instruments. For example, adverse economic effects arising from rising inflation and recession risk, disruptions to economic activity, global supply chain issues and labor shortages, will likely continue to negatively impact the creditworthiness of certain counterparties and result in increased credit losses for our businesses. In addition, disruptions in the liquidity or transparency of the financial markets may result in our inability to sell, syndicate or realize the value of our positions, thereby leading to increased concentrations. Any inability to reduce these positions may not only increase the market and credit risks associated with such positions, but also increase the level of risk-weighted assets on our balance sheet, thereby increasing our capital requirements, all of which could adversely affect our businesses.

- Refer to “Credit risk” in III — Treasury, Risk, Balance sheet and Off-balance sheet — Risk management — Risk coverage and management for information on management of credit risk.

Our regular review of the creditworthiness of clients and counterparties for credit losses does not depend on the accounting treatment of the asset or commitment. Changes in creditworthiness of loans and loan commitments that are fair valued are reflected in trading revenues.

Our accounting standards generally require management to estimate lifetime current expected credit losses on Credit Suisse’s credit exposure held at amortized cost, which may result in volatility in earnings and capital levels. Management’s determination of the provision for credit losses and the related estimation and application of forward-looking information requires quantitative analysis and significant expert judgment. The Group’s estimation of expected credit losses is based on a discounted probability-weighted estimate that considers macroeconomic scenarios. The scenarios are probability-weighted according to the Group’s best estimate of their relative likelihood based on historical frequency, an assessment of the current business and credit cycles as well as the macroeconomic factor trends. Expected credit losses are not solely derived from macroeconomic factor projections. Model overlays based on expert judgment are also applied, considering historical loss experience and industry and counterparty reviews. Such overlays are designed to address circumstances where in management’s judgment the CECL model outputs are overly sensitive to the effect of economic inputs that exhibit significant deviation from their long-term historical averages. Overlays may also be used to capture judgment on the economic uncertainty from global or regional developments with severe impacts on economies. We can suffer unexpected losses if the models and assumptions that are used to estimate our allowance for credit losses are not sufficient to address our credit losses.

- Refer to “Note 1 — Summary of significant accounting policies”, “Note 9 — Provision for credit losses”, “Note 19 — Loans” and “Note 20 — Financial instruments measured at amortized cost and credit losses” in VI — Consolidated financial statements — Credit Suisse Group for further information.

Under certain circumstances, we may assume long-term credit risk, extend credit against illiquid collateral and price derivative instruments aggressively based on the credit risks that we take. As a result of these risks, our capital and liquidity requirements may continue to increase.

Defaults by one or more large financial institutions could adversely affect financial markets generally and us specifically

Concerns, rumors about or an actual default by one institution could lead to significant liquidity problems, losses or defaults by other institutions because the commercial soundness of many financial institutions may be closely related as a result of credit, trading, clearing or other relationships between institutions. This risk is typically referred to as systemic risk. Concerns about defaults by and failures of many financial institutions could lead to material losses or defaults by financial institutions and financial intermediaries with which we interact on a daily basis, such as clearing agencies, clearing houses, banks, securities firms and exchanges. Our credit risk exposure will also materially increase if the collateral we hold cannot be realized or can only be liquidated at prices insufficient to cover the full amount of the exposure.

The information that we use to manage our credit risk may be inaccurate or incomplete

Although we regularly review our credit exposure to specific clients and counterparties and to specific industries, countries and regions that we believe may present credit concerns, default risk may arise from events or circumstances that are difficult to foresee or detect, such as fraud. We may also lack correct and complete information with respect to the credit or trading risks of a counterparty or risk associated with specific industries, countries and regions or misinterpret such information that is received or otherwise incorrectly assess a given risk situation. Additionally, there can be no assurance that measures instituted to manage such risk will be effective in all instances.

Strategy risk

We may not achieve some or all of the expected benefits of the strategic initiatives we have announced

On October 27, 2022, we announced a comprehensive new strategic direction for the Group and significant changes to its structure and organization, including establishing a more capital-light Investment Bank, divesting non-core businesses and accelerating cost reduction. We have announced our objective to implement most of these measures by 2025.

Our goals, our strategy for implementing them, and the completion of these measures are based on a number of key assumptions, including in relation to the future economic environment and the economic growth of certain geographic regions, the regulatory landscape, our ability to meet certain financial goals, and the confidence of clients, counterparties, employees and other stakeholders, including regulatory authorities, in this strategy and in our ability to implement it. If any of these assumptions prove inaccurate in whole or in part, we may not be able to achieve some or all of the expected benefits of our strategic initiatives, including generating the intended structural cost savings, strengthening and reallocating our capital, reducing our RWA and leverage exposure in certain divisions, divesting non-core businesses, generating sustainable returns, and

achieving our other targets and strategic goals. Furthermore, many of the factors that could affect these assumptions are beyond our control, including but not limited to market and economic conditions, changes in laws, rules or regulations, execution risk related to the implementation of our strategy and other challenges and risk factors discussed in this report, which could limit our ability to achieve some or all of the expected benefits of this strategy. A failure to reverse the outflows and to restore our assets under management and deposits following the developments in the fourth quarter of 2022 also could negatively affect our ability to achieve our strategic objectives, including as to our capital position. Our ability to implement our strategic initiatives also might be limited by restrictions on capital payments from subsidiaries as a result of regulatory, tax or other constraints. Our ability to achieve our objectives in connection with the reduction of RWA could also be dependent upon our obtaining certain relief from our regulators. The breadth of our strategic initiatives and goals also increases the challenges and risks of executing and implementing such initiatives. If we are unable to implement our strategy successfully in whole or in part, or should the strategic initiatives once implemented fail to produce the expected benefits, our financial results and our share price may be materially and adversely affected. Even if we are able to successfully implement our strategy, our proposed goals may increase our exposure to certain risks, including but not limited to credit risks, market risks, liquidity risks, operational risks and regulatory risks, and such risks may evolve in a way that is not under our control or entirely possible to predict.

- Refer to “Strategy” for further information on our strategic direction.

Our strategy involves a change in focus within certain areas of our business, including exiting certain businesses. For example, we have announced our intention to sell a significant part of the Securitized Products Group (SPG) and other related financing businesses and to carve out CS First Boston as a leading capital markets and advisory business. These changes may have negative effects in these and other areas of our business and may result in an adverse effect on our business as a whole.

Moreover, any reputational harm resulting from prior events or from reactions to our strategic initiatives may make it more difficult to implement those strategic initiatives or achieve the related targets and objectives.

- Refer to “Significant negative consequences of the Archegos and supply chain finance funds matters” for further information.

We anticipate that revenues and income for the Investment Bank will be materially reduced by the planned disposal of the majority of SPG’s assets, as well as by the targeted reduction in capital for the Investment Bank. Our ability to attract and retain clients also may be adversely affected by these changes. The capital-light Investment Bank may also face increased competition in areas such as leveraged finance and underwriting, particularly from competitors that have access to larger amounts of capital. In addition, the new structure of the Investment Bank may pose challenges for the division to build upon other businesses and relationships of the Group and may limit the division’s ability to deliver cross-selling opportunities to other Group businesses.

Market conditions, the ability to attract potential purchasers, regulatory approvals and consents, and other similar uncertainties may also affect our ability to dispose of assets, achieve favorable prices or terms for these disposals, or complete any announced but not yet completed disposals, which may lead us to dispose of assets at a loss, at a higher than expected loss, hold these assets for a longer period of time than desired or planned, or fail to dispose of assets at all. A significant element of our strategic plans is to transfer a majority of SPG's assets, including the sale of a significant portion of SPG to certain entities and funds managed by affiliates of Apollo Global Management. This transaction involves phased closings through the first half of 2023, subject to regulatory approvals, customer consents and other customary closing conditions. If we are unable to dispose of these assets as proposed or announced, including the contemplated sale of other portfolio assets to third-party investors, we may not be able to reduce our RWAs and leverage exposure according to plan or achieve the capital targets set out in our strategy.

In addition, we anticipate these disposals and changes to the Group may result in further impairments and write-downs, including in relation to goodwill and the revaluation of our deferred tax assets, which may have a material adverse effect on our results of operations and financial condition. These changes may also lead to further impairments of the capital effective component of the values of Credit Suisse AG (Bank parent company)'s participations in certain of its subsidiaries, which would negatively impact its Swiss CET1 ratio.

Our strategy also includes certain financial goals and targets. Our ability to achieve these targets is based on a number of macroeconomic factors and underlying business assumptions, such as a higher interest rate environment and our ability to hold and attract client assets at levels and rates similar to those in the past. For example, a period of stagflation may have negative effects on our ability to achieve our financial goals and targets. Furthermore, we do not expect geopolitical risks to escalate significantly. Deviations from any of these assumptions would impact our ability to achieve our financial goals and targets.

We are also seeking to achieve significant cost savings as part of our plan. We are targeting to reduce our costs based on the assumption that, in addition to specific strategic business exit and curtailment activities that account for a significant proportion of the intended cost savings, more savings can be achieved through efficiency measures. Implementing these measures will entail the incurrence of significant restructuring expenses, including software and real estate impairments, estimated to be approximately CHF 2.9 billion through the end of 2024, although they could exceed this level. These measures include de-scoping of business and internal footprint, organizational effectiveness and simplification, workforce management and third-party cost management. For example, we expect to run the bank with ~43,000 full-time-equivalent employees by the end of 2025 compared to ~52,000 at the end of the third quarter of 2022, reflecting natural attrition and targeted headcount reductions. Furthermore, we have identified short-term actions to set the right trajectory to meet our cost ambitions. These include a 30% reduction in contractor spend and a 50% reduction in consultancy spend in

2023. Our ability to achieve these cost savings is dependent on the execution of these measures on time and to their full extent. There is also a risk that these measures impact the revenue generation capabilities of the business beyond what has been taken into account currently for the strategic business curtailment activities. In addition, our planned exit from certain businesses and disposals of certain assets may entail higher costs or take more time than anticipated, or it may take longer than anticipated to reduce associated costs from activities we have exited, and accordingly this may impact our ability to achieve our targeted cost savings. Furthermore, additional costs could arise from any number of anticipated or unanticipated developments, such as costs relating to compliance with additional regulatory requirements and increased regulatory charges. Across all our businesses, we need to attract and retain highly qualified employees. The anticipated changes in the Group as part of our strategic initiatives may negatively impact our ability to hire and retain highly qualified employees, including due to any changes or reductions in compensation. In addition, our employee attrition has been higher over the last year, as noted above. If we are unable to attract and/or retain highly qualified employees across our businesses, this may have a material adverse effect on our ability to implement our strategy.

In addition, as part of our overarching legal entity simplification program, we are further reviewing our legal entity footprint in light of our strategic changes. The development of a strategy to optimize the legal entity structure across regions, taking into account the comprehensive strategic review, includes expediting the closure of redundant entities. There are a number of uncertainties that may affect the feasibility, scope and timing of the intended results, including macroeconomic factors as well as significant legal and regulatory considerations.

Country and currency exchange risk

Country risks may increase market and credit risks we face

Country, regional and political risks are components of market and credit risk. Financial markets and economic conditions generally have been and may in the future be materially affected by such risks. Economic or political pressures in a country or region, including those arising from local market disruptions, currency crises, monetary controls or other factors such as geopolitical issues, may adversely affect the ability of clients or counterparties located in that country or region to obtain foreign currency or credit and, therefore, to perform their obligations to us, which in turn may have an adverse impact on our results of operations.

We may face significant losses in emerging markets

An element of our strategy is to increase our wealth management businesses in emerging market countries. Our implementation of this strategy will increase our existing exposure to economic instability in those countries. We monitor these risks and seek diversity in the sectors in which we invest. Our efforts at limiting emerging market risk, however, may not always succeed. In addition, various emerging market countries have experienced and

may continue to experience severe economic, financial and political disruptions or slower economic growth than in previous years, including significant devaluations of their currencies, defaults or threatened defaults on sovereign debt and capital and currency exchange controls. In addition, sanctions have been imposed on certain individuals and companies in these markets that prohibit or restrict dealings with them and certain related entities or activities and further sanctions are possible. The possible effects of any such disruptions may include an adverse impact on our businesses and increased volatility in financial markets generally.

Currency fluctuations may adversely affect our results of operations

We are exposed to risk from fluctuations in exchange rates for currencies, particularly the US dollar. In particular, a substantial portion of our assets and liabilities are denominated in currencies other than the Swiss franc, which is the primary currency of our financial reporting. Our capital is also stated in Swiss francs, and we do not fully hedge our capital position against changes in currency exchange rates. The Swiss franc remained strong in 2022.

As we incur a significant part of our expenses in Swiss francs while we generate a large proportion of our revenues in other currencies, our earnings are sensitive to changes in the exchange rates between the Swiss franc and other major currencies. Although we have implemented a number of measures designed to offset the impact of exchange rate fluctuations on our results of operations, the appreciation of the Swiss franc in particular and exchange rate volatility in general have had an adverse impact on our results of operations and capital position in recent years and may continue to have an adverse effect in the future.

Operational, risk management and estimation risks

We may suffer operational system failures or disruptions, including due to human or technological error, which could negatively impact our results of operations, financial condition and reputation

Our business is highly dependent on the effectiveness of our operational systems and those of our clients, partners and counterparties. We continue to be exposed to operational risk arising from errors made in the execution, confirmation or settlement of transactions or from transactions not being properly recorded or accounted for, whether by us or by third parties on which we rely. Operational system failures or disruptions can be unpredictable and may arise from different sources, including sources out of our control. In addition, certain errors may not always be immediately identified by our technological processes or by our controls and other procedures, which are meant to detect and prevent such errors. Even if such errors are immediately identified and addressed, they could have an adverse effect on our results of operations, financial condition and reputation.

We are exposed to a wide variety of data breach, cybersecurity and other information technology risks

In recent years and in the wake of the COVID-19 pandemic, we continue to be an increasingly attractive target for cyber threat actors due in large part to the highly valuable critical data processed by financial services institutions, leading to heightened cybersecurity and information technology risks, including risks of cyber attacks and other hacking incidents. As a global financial services company, we rely heavily on our financial, accounting and other data processing systems, which are varied and complex, and we have faced and may continue to face additional technology risks due to the global nature of our operations and reliance on cloud technologies. For example, our business depends on our ability to process a large volume of diverse and complex transactions within a short space of time, including derivatives transactions, which have increased in volume and complexity. In general, although we have incident response and business continuity plans, our businesses continue to face a wide variety of operational risks, including technology risk that stems from dependencies on information technology, third-party suppliers and the telecommunications infrastructure as well as from the interconnectivity of multiple financial institutions with central agents, exchanges and clearing houses. We may rely on automation, robotic processing, machine learning and artificial intelligence (AI) for certain operations, and this reliance may increase in the future with corresponding advancements in technology, which could expose us to additional cybersecurity risks. In addition to such information technology risks and an increased risk of cyber attacks, we may also face heightened risks associated with a lesser degree of data and intellectual property protection in certain foreign jurisdictions in which we operate, even if we take all reasonable precautions, including to the extent required by law. Regulatory requirements in these areas continue to increase and are expected to increase further, including potential regulatory requirements to disclose information about a material cybersecurity incident even prior to a full investigation or resolution of the matter. Evolving regulations may vary and potentially conflict across different jurisdictions.

Information security, data confidentiality and integrity are of critical importance to our businesses, and there has been recent regulatory scrutiny on the ability of companies to safeguard the nonpublic or personal information of individuals in accordance with data protection regulation, including the European General Data Protection Regulation, US data protection laws such as the federal Gramm-Leach-Bliley Act and California Consumer Privacy Act as amended by the California Privacy Rights Act and the Swiss Federal Act on Data Protection. Governmental authorities, including foreign, federal and state data protection agencies, employees, individual customers or business partners may initiate proceedings against us as a result of security breaches affecting the confidentiality or integrity of nonpublic or personal information, as well as the failure, or perceived failure, to comply with data protection regulations. The adequate monitoring of operational risks and adherence to data protection regulations have also come under increased regulatory scrutiny. Any failure by Credit Suisse to adequately ensure the security of data and to address the increased technology-related operational risks could also lead to regulatory sanctions or investigations and a loss of trust in our systems, which may adversely affect our reputation, business and operations.

- Refer to “Regulatory framework — Switzerland — Cybersecurity”, “Regulatory framework — US — Data protection and cybersecurity” and “Regulatory framework — Global initiatives — Data protection regulation” in Regulation and supervision for further information.

Threats to our cybersecurity and data protection systems require us to dedicate significant financial and human resources to protect the confidentiality, integrity and availability of our systems and information. Despite our wide range of security measures, it is not always possible to anticipate the evolving threat landscape and mitigate all risks to our systems and information. These threats may derive from human error, misconduct (including errors in judgment, fraud or malice and/or engaging in violations of applicable laws, rules, policies or procedures), or may result from accidental technological failure. There may also be attempts to fraudulently induce employees, clients, third parties or other users of our systems to disclose sensitive information in order to gain access to our data or that of our clients. Additionally, because we share information with third party vendors and service providers to conduct our business, we could also be affected by risks to the systems and information of such third parties, particularly where such third party fails to implement adequate data-security practices, to comply with our information-sharing terms and policies or otherwise suffers a network or other security breach. In addition, hardware, software or applications we procure from third parties may contain security vulnerabilities, defects in design or manufacture or other problems that could unexpectedly compromise information security. For example, the increasing trend of remote working discussed further below may require our employees to use third party technology, which may not provide the same level of information security as our own information systems. Additionally, risks relating to cyber attacks on our vendors and other third parties have continued to increase due to more frequent and severe supply chain attacks impacting software and information technology service providers, which may be further exacerbated in light of the ongoing conflict related to Russia’s invasion of Ukraine. Security breaches may involve substantial remediation costs, affect our ability to carry out our businesses or impair the trust of our clients or potential clients, any of which could have a material adverse effect on our business and financial results. In addition, we may introduce new products or services or change processes, resulting in new operational risks that we may not fully appreciate or identify.

The shift to remote working for our employees increases the vulnerability of our information technology systems and the likelihood of damage as a result of a cybersecurity incident. For example, the use of remote devices to access the firm’s networks could impact our ability to quickly detect and mitigate security threats and human errors as they arise. Additionally, it is more challenging to ensure the comprehensive roll-out of system security updates and we also have less visibility over the physical security of our devices and systems. Due to the evolving nature of cybersecurity risks and our reduced visibility and control in light of remote working, our efforts to provide appropriate policies and security measures may prove insufficient to mitigate all cybersecurity and data protection threats.

Cybersecurity risks have also significantly increased in recent years in part due to the growing number and increasingly sophisticated activities of malicious cyber actors, including organized crime groups, state-sponsored actors, terrorist organizations, extremist parties and hackers. Although we have developed reasonable systems and processes designed to protect the nonpublic and/ or personal information of our clients and other third parties from data loss or other security breaches or incidents, our security measures have not always fully protected against such matters in the past. We and other financial institutions have suffered and may continue to suffer cyber attacks, ransomware attacks, information or security breaches, personal data breaches, losses or misappropriations and other forms of attacks, incidents and failures, including those involving disgruntled employees, activists and other third parties, such as those engaged in corporate espionage. For example, in March 2021, we became aware that a former employee had improperly exfiltrated from Credit Suisse certain records relating to certain Group employees and suppliers, including HR-related information and bank account numbers used to make payments, while employed by the Group several years ago when he emailed certain of the data to a limited number of recipients that included regulators, media outlets and ex-employees. After lengthy and still ongoing legal proceedings, it was only at the end of 2022 that we learned the full extent of the scope of this improper exfiltration. We have conducted a forensic review and believe that the incident has been contained. Relevant notifications have been made as appropriate to regulators, data protection authorities and individual data subjects.

We expect to continue to be the target of such attacks in the future, and we may experience other forms of cybersecurity or data protection incidents or failures in the future, including with respect to damages from computer viruses, worms, and other malicious software programs or other attacks, covert introduction of malware to computers and networks, unauthorized access, including impersonation of unauthorized users, efforts to discover and exploit any security vulnerabilities or security weaknesses, and other similar disruptions. In the event of a cyber attack, information or security breach, personal data breach or technology failure, we have experienced and may in the future experience operational issues, the infiltration of payment systems or the unauthorized release, gathering, monitoring, misuse, loss or destruction of confidential, proprietary and other information relating to Credit Suisse, our clients, employees, vendors, service providers, counterparties or other third parties. Emerging technologies, including the increasing use of automation, AI and robotics, as well as the broad utilization of third-party financial data aggregators, could further increase our cybersecurity risk and exposure.

Given our global footprint and the high volume of transactions we process, the large number of clients, partners and counterparties with which we do business, our and our clients’ growing use of digital, mobile, cloud- and internet-based services and platforms, and the increasing frequency, sophistication and evolving nature of cyber attacks, a cyber attack, information or security breach, personal data breach or technology failure may occur, whether on our systems or that of a third party, without detection for an extended

period of time. In addition, we expect that any investigation of a cyber attack, information or security breach, personal data breach or technology failure will be inherently unpredictable and it may take time before any investigation is complete. These factors may inhibit our ability to provide timely, accurate and complete information about the event to our clients, employees, regulators, other stakeholders and the public. During such time, we may not know the extent of the harm or how best to remediate it and certain errors or actions may be repeated or compounded before they are discovered and rectified, all or any of which would further increase the costs and consequences of a cyber attack, information or security breach, personal data breach or technology failure.

If any of our systems, or the systems of third parties on which we rely, do not operate properly or are compromised as a result of cyber attacks, information or security breaches, personal data breaches, technology failures, unauthorized access, loss or destruction of data, unavailability of service, computer viruses or other events that could have an adverse security impact, we could, among other things, be subject to litigation or suffer financial loss not covered by insurance, a disruption of our businesses, liability to our clients, employees, counterparties or other third parties, damage to relationships with our vendors or service providers, regulatory intervention or reputational damage. Any such event could also require us to expend significant additional resources to modify our protective measures or to investigate and remediate vulnerabilities or other exposures. We may also be required to expend resources to comply with new and increasingly expansive regulatory requirements related to cybersecurity.

We may suffer losses due to employee misconduct

Our businesses are exposed to risk from potential non-compliance with policies or regulations, employee misconduct or negligence and fraud, which could result in civil, regulatory or criminal investigations, litigations and charges, regulatory sanctions and serious reputational or financial harm. In recent years, a number of multinational financial institutions have suffered material losses due to, for example, the actions of traders executing unauthorized trades or other employee misconduct. It is not always possible to deter or fully prevent employee misconduct and the precautions we take to prevent and detect this activity have not always been, and may not always be, fully effective.

Our risk management procedures and policies may not be fully effective in mitigating our risk exposures in all market environments or against all types of risk, which can result in unexpected, material losses in the future

We seek to monitor and control our risk exposure through a broad and diversified set of risk management policies and procedures as well as hedging strategies, including the use of models in analyzing and monitoring the various risks we assume in conducting our activities. These risk management strategies, techniques, models, procedures and policies, however, may not be fully effective in mitigating our risk exposure in all economic market environments or against all types of risk, including risks that we fail to identify, anticipate or mitigate, in whole or in part, which may result in unexpected, material losses.

Some of our quantitative tools and metrics for managing risk, including value-at-risk and economic risk capital, are based upon our use of observed historical market behavior. Our risk management tools and metrics may fail to predict important risk exposures. In addition, our quantitative modeling does not take all risks into account and makes numerous assumptions and judgments regarding the overall environment, and therefore cannot anticipate every market development or event or the specifics and timing of such outcomes. As a result, risk exposures could arise from factors we did not anticipate or correctly evaluate in our statistical models. This could limit our ability to manage our risks, and in these and other cases, it can also be difficult to reduce our risk positions due to the activity of other market participants or widespread market dislocations. As a result, our losses may be significantly greater than what the historical measures may indicate.

In addition, inadequacies or lapses in our risk management procedures and policies can expose us to unexpected losses, and our financial condition or results of operations could be materially and adversely affected. For example, in respect of the Archegos matter, the independent report found, among other things, a failure to effectively manage risk in the Investment Bank's prime services business by both the first and second lines of defense as well as a lack of risk escalation. Such inadequacies or lapses can require significant resources and time to remediate, lead to non-compliance with laws, rules and regulations, attract heightened regulatory scrutiny, expose us to regulatory investigations or legal proceedings and subject us to litigation or regulatory fines, penalties or other sanctions, or capital surcharges or add-ons. In addition, such inadequacies or lapses can expose us to reputational damage. If existing or potential customers, clients or counterparties believe our risk management is inadequate, they could take their business elsewhere or seek to limit their transactions with us, which could have a material adverse effect on our results of operations and financial condition.

- Refer to "Risk management" in III — Treasury, Risk, Balance sheet and Off-balance sheet for information on our risk management.

We have identified material weaknesses in our internal control over financial reporting as of December 31, 2022 and 2021

We are subject to requirements under the Sarbanes-Oxley Act of 2002, as amended, to perform system and process evaluation and testing of our internal control over financial reporting to allow management to assess the effectiveness of our internal controls. Management has identified certain material weaknesses in our internal control over financial reporting as a result of which management has concluded that, as of December 31, 2022, the Group's internal control over financial reporting was not effective, and for the same reasons, management has reassessed and has reached the same conclusion regarding December 31, 2021, as more fully described in this Annual Report. Management has also accordingly concluded that our disclosure controls and procedures were not effective.

The material weaknesses that have been identified relate to the failure to design and maintain an effective risk assessment

process to identify and analyze the risk of material misstatements in its financial statements and the failure to design and maintain effective monitoring activities relating to (i) providing sufficient management oversight over the internal control evaluation process to support the Group's internal control objectives; (ii) involving appropriate and sufficient management resources to support the risk assessment and monitoring objectives; and (iii) assessing and communicating the severity of deficiencies in a timely manner to those parties responsible for taking corrective action. These material weaknesses contributed to an additional material weakness, as management did not design and maintain effective controls over the classification and presentation of the consolidated statement of cash flows. This material weakness resulted in the revisions contained in our previously issued consolidated financial statements for the three years ended December 31, 2021 as disclosed in the 2021 Annual Report.

Notwithstanding these material weaknesses, we confirm that our consolidated financial statements as included in this Annual Report fairly present, in all material respects, our consolidated financial condition as of December 31, 2022 and 2021, and our consolidated results of operations and cash flows for the years ended December 31, 2022, 2021 and 2020, in conformity with US GAAP. Management is developing a remediation plan to address the material weaknesses referred to above, including strengthening the risk and control frameworks, and which will build on the significant attention that management has devoted to controls to date. While we are taking steps to address these material weaknesses, which could require us to expend significant resources to correct the material weaknesses or deficiencies, any gaps or deficiencies in our internal control over financial reporting may result in us being unable to provide required financial information in a timely and reliable manner and/or incorrectly reporting financial information, which could reduce confidence in our published information, impact access to capital markets, impact the trading price of our securities or subject us to potential regulatory investigations and sanctions. In addition, there can be no assurance that these measures will remediate the material weaknesses in our internal control over financial reporting or that additional material weaknesses in our internal control over financial reporting will not be identified in the future. Any of the foregoing could materially and adversely affect our business, results of operations and financial condition.

Our actual results may differ from our estimates and valuations

We make estimates and valuations that affect our reported results, including determining the fair value of certain assets and liabilities, establishing provisions for contingencies and losses for loans, litigation and regulatory proceedings, accounting for goodwill and intangible asset impairments, evaluating our ability to realize deferred tax assets, valuing equity-based compensation awards, modeling our risk exposure and calculating expenses and liabilities associated with our pension plans. These estimates are based on judgment and available information, and our actual results may differ materially from these estimates.

- Refer to “Critical accounting estimates” in II — Operating and financial review and “Note 1 — Summary of significant accounting policies” in VI — Consolidated financial statements — Credit Suisse Group for information on these estimates and valuations.

Our estimates and valuations rely on models and processes to predict economic conditions and market or other events that might affect the ability of counterparties to perform their obligations to us or impact the value of assets. To the extent our models and processes become less predictive due to unforeseen market conditions, illiquidity or volatility, our ability to make accurate estimates and valuations could be adversely affected.

Our accounting treatment of off-balance sheet entities may change

We enter into transactions with special purpose entities (SPEs) in our normal course of business, and certain SPEs with which we transact and conduct business are not consolidated and their assets and liabilities are off-balance sheet. We may have to exercise significant management judgment in applying relevant accounting consolidation standards, either initially or after the occurrence of certain events that may require us to reassess whether consolidation is required. If we are required to consolidate an SPE, its assets and liabilities would be recorded on our consolidated balance sheets and we would recognize related gains and losses in our consolidated statements of operations, and this could have an adverse impact on our results of operations and capital and leverage ratios.

- Refer to “Off-balance sheet” in III — Treasury, Risk, Balance sheet and Off-balance sheet — Balance sheet and off-balance sheet for information on our transactions with and commitments to SPEs.

We are exposed to Environmental, Social and Governance (ESG) risks, including climate change, which could adversely affect our business operations, reputation, clients and customers, as well as the creditworthiness of our counterparties

We operate in many regions, countries and communities around the world where our businesses, and the activities of our clients, could be impacted by climate change and broader ESG-related issues. These issues pose both short- and long-term risks to us and our clients. Climate change could expose us to financial risk either through its physical (e.g., climate or weather-related events) or transition (e.g., changes in climate policy or in the regulation of financial institutions with respect to climate change risks) effects. Transition risks could be further accelerated by the increasingly frequent occurrence of changes in the physical climate, such as hurricanes, floods, wildfires and extreme temperatures.

Physical and transition climate risks could have a financial impact on us either directly, through our physical assets, costs and operations, or indirectly, through our financial relationships with our clients. These risks are varied and include, but are not limited to, the risk of declines in values and/or liquidity of assets, including in connection with our real estate investments, credit risk associated with loans and other credit exposures to our clients, business risk, including loss of revenues associated with reducing exposure to traditional business with clients that do not have a credible

transition plan, decreased assets under management if such clients decide to move assets away, increased defaults and reallocation of capital as a result of changes in global policies, and regulatory risk, including ongoing legislative and regulatory uncertainties and changes regarding climate risk management and best practices. Additionally, the risk of reduced availability of insurance, operational risk related to Credit Suisse-owned buildings and infrastructure, the risk of significant or prolonged interruptions to business operations, as well as the need to make changes in response to those consequences are further examples of climate-related risks.

We have set for ourselves the ambition of reaching net zero emissions by 2050 in line with a 1.5°C trajectory across our lending and investment portfolios, as well as our own operations and supply chain. Based on our commitment to develop interim 2030 science-based goals for key sectors, in 2022 we set goals and outlined initial progress for additional sectors, besides oil, gas & coal. In March 2022, Credit Suisse Asset Management also joined the Net Zero Asset Managers initiative (NZAMi), and in December 2022, Credit Suisse Asset Management and Investment Solutions & Sustainability, or IS&S, within Credit Suisse Wealth Management disclosed their joint Climate Action Plan, setting a 2030 interim goal of a 50% reduction in investment-associated emissions in intensity terms versus 2019. In addition, with respect to our ambition for our supply chain to achieve net zero emissions, while we are actively engaging with our strategic suppliers to align on emissions data collection as well as target plans and opportunities for reduction, there can be no assurance that these suppliers will address climate risks responsibly, including because they may not have a credible transition plan or be able to implement it within the timeframe we have set for our own objectives. In order to reach these ambitions and goals or any other related aspirations we may set from time to time, we will need to incorporate climate considerations into our business strategy, products and services, as well as our financial and non-financial risk management processes, and hire and train employees with the skills and qualifications to help us achieve our ambitions and goals, and we may incur significant cost and effort in doing so. At the same time, data relating to ESG, including climate change, may be limited in availability and variable in quality and consistency, and methodologies and capabilities for modeling and analyzing climate-related risks remain in the development stages, which may limit our ability to perform robust climate-related risk and other sustainability risk analyses and realize our ambitions and goals.

Further, national and international standards, industry and scientific knowledge and practices, regulatory requirements and market expectations regarding ESG initiatives are under continuous development, may rapidly change and are subject to different interpretations. Although we have adopted our ESG strategy based upon what we believe are current criteria, there can be no assurance that such standards, knowledge, practices, regulatory requirements and market expectations will not be interpreted differently than our interpretation when setting our related goals and ambitions, or change in a manner that substantially increases the cost or effort for us to achieve such goals and ambitions, or requires us to adjust our goals and ambitions or that our goals and ambitions may prove to be considerably more difficult or even impossible to achieve. This may be

exacerbated if we choose or are required to accelerate our goals and ambitions or change our approach based on national or international regulatory developments, stakeholder expectations or business trends, including as they may change over time. Furthermore, as an individual financial institution, our ability to influence the direction of or approach to ESG issues is limited, and the achievement of our goals and ambitions is highly dependent on the collective effort and actions of governments, other corporations, individuals, nonprofit organizations and other stakeholders. Achievement of ESG-related goals and initiatives is also dependent on technological advancements and other concurrent actions and efforts by external parties and other actors that are outside of our control. Our ability to make progress on our goals and ambitions may be further impacted by external factors outside of our control, including geopolitical matters, energy security issues or considerations such as a just transition to a lower-carbon economy and society.

Given the growing volume of nascent climate and sustainability-related laws, rules and regulations, increasing demand from various stakeholders for environmentally sustainable products and services and regulatory scrutiny, we and other financial institutions may also be subject to increasing litigation, enforcement and contract liability risks in connection with climate change, environmental degradation and other ESG-related issues. For example, the issue of climate risk at financial institutions has received sharpened focus from regulators and other governmental authorities, as evidenced by proposed rules related to disclosure and management of climate-related risks put forth by various regulatory bodies, including in the US, EU, Switzerland and Asia Pacific. In addition, the public holds diverse and often conflicting views on ESG-related issues, and our reputation and client relationships may be damaged by our or our clients' involvement in certain business activities associated with climate change and other ESG-related issues or as a result of negative public sentiment, regulatory scrutiny or reduced investor and stakeholder confidence due to our response to climate change and our climate strategy. For example, the integration of climate risk considerations into our business risk analysis has been subjected to particular scrutiny by external stakeholders in 2022, as we saw polarized views emerging across the globe. While some government agencies may accuse Credit Suisse and other financial institutions of boycotting the energy sector, other stakeholders have been asking us to introduce stricter sector policies and further limit our lending activities in climate sensitive and carbon related sectors. Our results of operations and financial condition may be adversely affected if national, state or local governments take steps to discourage financial institutions from doing business with companies in certain industries or, conversely, penalize them if they do not do business with such companies.

Beyond climate impacts, we may also be impacted by human rights risks, including discrimination, particularly with respect to our employees and our clients, as well as modern slavery in our supply chains and those of our clients. Our employees, business and reputation may be negatively impacted by a failure to adequately manage these risks, which failure may result in challenges related to hiring and retention of employees. Moreover, any existing global tensions with respect to human rights, such as between the US and China,

may be exacerbated for Credit Suisse, given our global reach and presence in various markets around the world.

If we fail to appropriately measure and manage the various risks we face as a result of climate change and other ESG-related issues, fail or are perceived by stakeholders to have failed to prioritize the “correct” ESG-related goals, fail to achieve the goals and ambitions we have set (or can only do so at a significant expense to our business), or fail to adapt our strategy and business model to the changing regulatory requirements and market expectations, our reputation, business, results of operations and financial condition could be materially adversely affected, including, with respect to climate-related risks, given the unpredictability of the timing, nature and severity of climate change impacts.

- Refer to “Climate-related risks” in III — Treasury, Risk, Balance sheet and Off-balance sheet — Risk management — Risk coverage and management for further information on our risk management procedures relating to climate change.

Legal, regulatory and reputational risks

Our exposure to legal liability is significant

We face significant legal risks in our businesses, and the volume and amount of damages claimed in litigation, regulatory proceedings and other adversarial proceedings against financial services firms continue to increase in many of the principal markets in which we operate.

We and our subsidiaries are subject to a number of material legal proceedings, regulatory actions and investigations, and an adverse result in one or more of these proceedings could have a material adverse effect on our operating results for any particular period, depending, in part, on our results for such period.

- Refer to “Note 40 — Litigation” in VI — Consolidated financial statements — Credit Suisse Group for information relating to these and other legal and regulatory proceedings involving our investment banking and other businesses.

It is inherently difficult to predict the outcome of many of the legal, regulatory and other adversarial proceedings involving our businesses, particularly those cases in which the matters are brought on behalf of various classes of claimants, seek damages of unspecified or indeterminate amounts or involve novel legal claims. Management is required to establish, increase or release reserves for losses that are probable and reasonably estimable in connection with these matters, all of which requires the application of significant judgment and discretion.

- Refer to “Critical accounting estimates” in II — Operating and financial review and “Note 1 — Summary of significant accounting policies” in VI — Consolidated financial statements — Credit Suisse Group for further information.

Our business is highly regulated, and existing, new or changed laws, rules and regulations may adversely affect our business and ability to execute our strategic plans

In many areas of our business, we are subject to extensive laws, rules and regulations by governments, governmental agencies, supervisory authorities and self-regulatory organizations in Switzerland, the EU, the UK, the US and other jurisdictions in which we

operate, including an evolving and complex set of sanctions regimes. We have in the past faced, and expect to continue to face, increasingly extensive and complex laws, rules, regulations and regulatory scrutiny and possible enforcement actions. In recent years, costs related to our compliance with these requirements and the penalties and fines sought and imposed on the financial services industry by regulatory authorities have increased significantly. We expect such increased regulation and enforcement to continue to increase our costs, including, but not limited to, costs related to compliance, systems and operations, and to negatively affect our ability to conduct certain types of business. These increased costs and negative impacts on our business could adversely affect our profitability and competitive position. These laws, rules and regulations often serve to limit our activities, including through the application of increased or enhanced capital, leverage and liquidity requirements, the implementation of additional capital surcharges for risks related to operational, litigation, regulatory and similar matters, customer protection and market conduct regulations, anti-money laundering, anti-corruption and anti-bribery laws, rules and regulations, compliance with evolving ESG standards and requirements and direct or indirect restrictions on the businesses in which we may operate or invest. Such limitations can have a negative effect on our business and our ability to implement strategic initiatives. To the extent we are required to divest certain businesses, we could incur losses, as we may be forced to sell such businesses at a discount, which in certain instances could be substantial, as a result of both the constrained timing of such sales and the possibility that other financial institutions are liquidating similar investments at the same time.

Since 2008, regulators and governments have focused on the reform of the financial services industry, including enhanced capital, leverage and liquidity requirements, changes in compensation practices (including tax levies) and measures to address systemic risk, including ring-fencing certain activities and operations within specific legal entities. These regulations and requirements could require us to reduce assets held in certain subsidiaries or inject capital or other funds into or otherwise change our operations or the structure of our subsidiaries and the Group. Differences in the details and implementation of such regulations may further negatively affect us, as certain requirements are currently not expected to apply equally to all of our competitors or to be implemented uniformly across jurisdictions.

Moreover, as a number of these requirements are currently being finalized and implemented, their regulatory impact may further increase in the future and their ultimate impact cannot be predicted at this time. For example, the Basel III reforms are still being finalized and implemented and/or phased in, as applicable. The additional requirements related to minimum regulatory capital, leverage ratios and liquidity measures imposed by Basel III, as implemented in Switzerland, together with more stringent requirements imposed by the Swiss legislation and their application by FINMA, and the related implementing ordinances and actions by our regulators, have contributed to our decision to reduce risk-weighted assets and the size of our balance sheet, and could potentially affect our business, impact our access to capital markets and increase our funding costs. In addition, various reforms in the US, including the “Volcker Rule” and

derivatives regulation, have imposed, and will continue to impose, new regulatory duties on certain of our operations. These requirements have contributed to our decision to exit certain businesses (including a number of our private equity businesses) and may lead us to exit other businesses. Recent CFTC, SEC and Fed rules and proposals have materially increased, or could in the future materially increase, the operating costs, including margin requirements, compliance, information technology and related costs, associated with our derivatives businesses with US persons, while at the same time making it more difficult for us to operate a derivatives business outside the US. Further, in 2014, the Fed adopted a final rule under the Dodd-Frank Act that introduced a new framework for regulation of the US operations of foreign banking organizations such as ours. Implementation is expected to continue to result in us incurring additional costs and to affect the way we conduct our business in the US, including through our US IHC. Further, current and possible future cross-border tax regulation with extraterritorial effect, such as FATCA, the OECD global minimum tax rate levels and rules (Pillar Two) and other bilateral or multilateral tax treaties and agreements on the automatic exchange of information in tax matters, impose detailed reporting obligations and increased compliance and systems-related costs on our businesses, and, as concerns the Pillar Two system of global minimum tax, may affect our tax rate. In addition, the US tax reform enacted on December 22, 2017 introduced substantial changes to the US tax system, including the lowering of the corporate tax rate and the introduction of the US base erosion and anti-abuse tax. The IRA of 2022 made significant changes to US tax law, including the introduction of a corporate alternative minimum tax of 15% on certain domestic corporations and a 1% excise tax on stock repurchases by certain domestic corporations. Additionally, implementation of regulations such as the Capital Requirements Directive V (CRD V) in the EU, FinSA in Switzerland, and other reforms may negatively affect our business activities. Whether or not the FinSA, together with supporting or implementing ordinances and regulations, will be deemed equivalent to MiFID II currently remains uncertain. Swiss banks, including us, may accordingly be limited from participating in certain businesses regulated by MiFID II. Finally, we expect that TLAC requirements, currently in force in Switzerland, the US and in the UK, as well as in the EU, and which are being finalized in many other jurisdictions, as well as new requirements and rules with respect to the internal total loss-absorbing capacity (iTLAC) of G-SIBs and their operating entities, may increase our cost of funding and restrict our ability to deploy capital and liquidity on a global basis as needed once the TLAC and iTLAC requirements are implemented across all relevant jurisdictions.

We are subject to economic sanctions laws and regulatory requirements of various countries. These laws and regulatory requirements generally prohibit or restrict transactions involving certain countries/territories and parties. Our costs of monitoring and complying with frequent, complex and potentially conflicting changes to applicable economic sanctions laws and regulatory requirements have increased and there is an increased risk that we may not identify and stop prohibited or sanctionable activities before they occur or that

we may otherwise fail to comply with economic sanctions laws and regulatory requirements. Any conduct targeted by or in violation of a sanctions program could subject us to significant civil and potentially criminal penalties or other adverse consequences.

- Refer to “Sanctions developments” in Regulation and supervision — Recent regulatory developments and proposals — Global initiatives for further information.

We expect the financial services industry and its members, including us, to continue to be affected by the significant uncertainty over the scope and content of regulatory reform in 2023 and beyond, in particular, uncertainty in relation to the future US regulatory agenda, which includes a variety of proposals to change existing regulations or the approach to regulation of the financial industry as well as potential new tax policy and potential changes in regulation following the UK’s withdrawal from the EU and the results of European national elections. In addition, we face regulatory and legislative uncertainty in the US and other jurisdictions with respect to climate change and other ESG-related issues, including with respect to any new or changing disclosure requirements, and with respect to data protection and security, including various new and changing regulations addressing the collection, storing, sharing, use, disclosure, disposal and protection of certain types of data, as well as cybersecurity. Changes in laws, rules or regulations, or in their interpretation or enforcement, or the implementation of new laws, rules or regulations, may adversely affect our results of operations, including in ways that may require us to modify our internal policies and practices and incur substantial compliance-related costs and expenses that are likely to increase over time.

- Refer to “Regulation and supervision” for further information on related regulations.

Despite our best efforts to comply with applicable laws, rules and regulations, a number of risks remain, including in areas where applicable laws, rules or regulations may be unclear or inconsistent across jurisdictions, where they are enacted with extra-territorial impact or where our global operations mean we are obliged to give effect to local laws and regulations on a wider basis or where governments, regulators or international bodies, organizations or unions revise their previous guidance or courts overturn previous rulings. Additionally, authorities in many jurisdictions have the power to bring administrative or judicial proceedings against us, which could result in, among other things, suspension or revocation of our licenses, cease and desist orders, fines, civil penalties, criminal penalties, deferred prosecution agreements or other disciplinary action. Such matters have in the past and could in the future materially adversely affect our results of operations and seriously harm our reputation.

- Refer to “Regulation and supervision” for a description of our regulatory regime and a summary of some of the significant regulatory and government reform proposals affecting the financial services industry as well as to “Liquidity and funding management” and “Capital management” in III — Treasury, Risk, Balance sheet and Off-balance sheet for information regarding our current regulatory framework and expected changes to this framework affecting capital and liquidity standards.

Damage to our reputation can significantly harm our businesses, including our competitive position and business prospects

We suffered reputational harm as a result of the Archegos and SCFF matters and may suffer further reputational harm in the future as a result of these matters or other events. We also suffered reputational harm as a result of the significant negative outflows of deposits and assets under management in the fourth quarter of 2022. Our ability to attract and retain customers, clients, investors and employees, and conduct business transactions with our counterparties, can be adversely affected to the extent our reputation is damaged. Harm to our reputation can arise from various sources, including failures or apparent failures in our procedures and controls to prevent employee misconduct, negligence and fraud, to address conflicts of interest and breach of fiduciary obligations, to produce materially accurate and complete financial and other information, to identify credit, liquidity, operational and market risks inherent in our business or to prevent adverse legal or regulatory actions or investigations. Additionally, our reputation can be harmed by actual or alleged compliance failures, information or security breaches, personal data breaches, cyber incidents, technology failures, challenges to the suitability or reasonableness of our particular trading or investment recommendations or strategies and the activities of our customers, clients, counterparties and third parties. Actions by the financial services industry generally or by certain members or individuals in the industry also can adversely affect our reputation. In addition, our reputation may be negatively impacted by our ESG practices and disclosures, including those related to climate change and any actual or perceived overstatement of the ESG-related benefits of our products and services, and how we address ESG concerns in our business activities, or by our clients' involvement in certain business activities associated with climate change. Adverse publicity or negative information in the media, posted on social media, or otherwise, whether or not factually correct, can also have a material adverse impact on our business prospects and financial results, which risk can be magnified by the speed and pervasiveness with which information is disseminated through those channels.

A reputation for financial strength and integrity is critical to our performance in the highly competitive environment arising from globalization and convergence in the financial services industry, and our failure to address, or the appearance of our failing to address, these and other issues gives rise to reputational risk that can harm our business, results of operations and financial condition. Failure to appropriately address any of these issues could also give rise to additional regulatory restrictions and legal risks, which may further lead to reputational harm.

- Refer to “Reputational risk” in III — Treasury, Risk, Balance sheet and Off-balance sheet — Risk management — Risk coverage and management for further information.

Resolution proceedings and resolution planning requirements may affect our shareholders and creditors

Pursuant to Swiss banking laws, FINMA has broad powers and discretion in the case of resolution proceedings with respect to a

Swiss bank, such as Credit Suisse AG or Credit Suisse (Schweiz) AG, and to a Swiss parent company of a financial group, such as Credit Suisse Group AG. These broad powers include the power to initiate restructuring proceedings with respect to Credit Suisse AG, Credit Suisse (Schweiz) AG or Credit Suisse Group AG and, in connection therewith, cancel the outstanding equity of the entity subject to such proceedings, convert such entity's debt instruments and other liabilities into equity and/or cancel such debt instruments and other liabilities, in each case, in whole or in part, and stay (for a maximum of two business days) certain termination and netting rights under contracts to which such entity is a party, as well as the power to order protective measures, including the deferment of payments, and institute liquidation proceedings with respect to Credit Suisse AG, Credit Suisse (Schweiz) AG or Credit Suisse Group AG. The scope of such powers and discretion and the legal mechanisms that would be applied are subject to development and interpretation.

We are currently subject to resolution planning requirements in Switzerland, the US, the EU and the UK and may face similar requirements in other jurisdictions. If a resolution plan is determined by the relevant authority to be inadequate, relevant regulations may allow the authority to place limitations on the scope or size of our business in that jurisdiction, require us to hold higher amounts of capital or liquidity, require us to divest assets or subsidiaries or to change our legal structure or business to remove the relevant impediments to resolution.

- Refer to “Switzerland — Resolution regime”, “US — Resolution regime”, “EU — Resolution regime” and “UK — Resolution regime” in Regulation and supervision — Regulatory framework for a description of the current resolution regime under Swiss, US, EU and UK banking laws as they apply to Credit Suisse.

Changes in monetary policy are beyond our control and difficult to predict

We are affected by the monetary policies adopted by the central banks and regulatory authorities of Switzerland, the US and other countries. The actions of the SNB and other central banking authorities directly impact our cost of funds for lending, capital raising and investment activities and may impact the value of financial instruments we hold and the competitive and operating environment for the financial services industry. Many central banks, including the Fed and the ECB, have implemented significant changes to their monetary policy or have experienced significant changes in their management and may implement or experience further changes. We cannot predict whether these changes will have a material adverse effect on us or our operations. In addition, changes in monetary policy may affect the credit quality of our customers. Any changes in monetary policy are beyond our control and difficult to predict.

Legal restrictions on our clients may reduce the demand for our services

We may be materially affected not only by regulations applicable to us as a financial services company, but also by regulations and changes in enforcement practices applicable to our clients. Our business could be affected by, among other things, existing and proposed tax legislation, antitrust and competition policies, corporate governance initiatives and other governmental regulations

and policies, and changes in the interpretation or enforcement of existing laws and rules that affect business and the financial markets. For example, focus on tax compliance and changes in enforcement practices could lead to further asset outflows from our wealth management businesses.

Competition

We face intense competition

We face intense competition in all sectors of the financial services markets and for the products and services we offer. Consolidation through mergers, acquisitions, alliances and cooperation, including as a result of financial distress, has increased competitive pressures. Competition is based on many factors, including the products and services offered, pricing, distribution systems, customer service, brand recognition, perceived financial strength and the willingness to use capital to serve client needs. Consolidation has created a number of firms that, like us, have the ability to offer a wide range of products and services, from loans and deposit taking to brokerage, investment banking and asset management services. Some of these firms may be able to offer a broader range of products than we do, or offer such products at more competitive prices. In addition, current market conditions have had a fundamental impact on client demand for products and services. Some new competitors in the financial technology sector, including nonbank entities, have sought to target existing segments of our businesses that could be susceptible to disruption by innovative or less regulated business models and lead to a loss of market share for traditional banks. Emerging technology, including robo-advising services, digital asset services and other financial products and services, may also result in further competition in the markets in which we operate, for example, by allowing e-commerce firms or other companies to provide products and services similar to ours at a lower price or in a more competitive manner in terms of customer convenience. We may face a competitive disadvantage if these services or our other competitors are subject to different and, in certain cases, less restrictive legal and/or regulatory requirements. We can give no assurance that our results of operations will not be adversely affected.

We must recruit and retain highly skilled employees

Our performance is largely dependent on the talents and efforts of highly skilled individuals. Competition for qualified employees is intense and the hiring market in the financial services and other industries has been and is expected to continue to be extremely competitive. In addition, the impact of COVID-19 on evolving workforce norms, practices and expectations, as well as persistent labor shortages, could adversely affect our ability to recruit and retain employees. Employee performance or our control environment could be impacted by an increase in the usage of hybrid work models, but at the same time, reducing or discontinuing hybrid work models could have an adverse effect on our employee recruitment and retention efforts. We have devoted considerable resources to recruiting, training and compensating employees. Our continued ability to compete effectively in our businesses depends on our ability to attract new employees

and to retain and motivate our existing employees. The failure to attract and/or retain highly qualified employees could also have a negative impact on our ability to comply with our legal and compliance obligations. The continued public focus on compensation practices in the financial services industry, and related regulatory changes, may have an adverse impact on our ability to attract and retain highly skilled employees. In particular, limits on the amount and form of executive compensation imposed by existing or future legislation, including the Swiss Code of Obligations and the Capital Requirements Directive V in the EU and the UK, could potentially have an adverse impact on our ability to retain certain of our most highly skilled employees and hire new qualified employees in certain businesses. Additionally, the anticipated changes in the Group as part of our strategic initiatives announced on October 27, 2022, can also negatively impact our ability to hire and retain highly qualified employees, including due to any changes or reductions in compensation. Any matters impacting our financial results or reputation can negatively impact our ability to retain employees and recruit new talent as well as reduce employee morale. Competitors may also seize upon these negative developments to hire some of our employees. For example, we have experienced high attrition, attributable at least in part to the challenges we have been facing in recent years.

If we are unable to attract and/or retain highly qualified employees across our businesses, this may have a material adverse effect on our ability to implement our strategic initiatives and on our results of operations and financial condition. Cost-cutting measures and headcount reductions could contribute to these concerns.

We face competition from new technologies

Our businesses face competitive challenges from new technologies, including new trading technologies and trends towards direct access to automated and electronic markets with low or no fees and commissions, and the move to more automated trading platforms. Such technologies and trends may adversely affect our commission and trading revenues, exclude our businesses from certain transaction flows, reduce our participation in the trading markets and the associated access to market information and lead to the establishment of new and stronger competitors. We have made, and may continue to be required to make, significant additional expenditures to develop and support new trading systems or otherwise invest in technology to maintain our competitive position.

The evolution of internet-based financial solutions has also facilitated growth in new technologies, including distributed ledgers, such as digital assets and blockchain, which may disrupt the financial services industry and require us to commit further resources to adapt our products and services. Wider adoption of such emerging technologies may also increase our costs for complying with evolving laws, rules and regulations, and if we are not timely or successful in adapting to evolving consumer or market preferences, our business and results of operations may be adversely affected. Additionally, as we develop new products and services that involve emerging technologies, we may face new risks if they are not designed and governed adequately.

II – Operating and financial review

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Operating environment

Global economic activity slowed in 2022, and inflation has been on the rise. Global equity markets declined substantially. Major government bond yields increased, and the US dollar was generally stronger against other major currencies in 2022.

Economic environment

Global economic growth slowed in 2022 as the impetus from post-pandemic reopening and global monetary policy stimulus decreased. Energy disruptions resulting from Russia's invasion of Ukraine, tighter monetary policies and weakening consumer and business confidence weighed on economic growth in developed economies. Inflation in major economies increased as high energy prices, supply shortages and tight labor markets contributed to rising prices. Economic and social activity in China was disrupted by the COVID-19 pandemic as a stringent zero-COVID policy caused intermittent public lockdowns during the year.

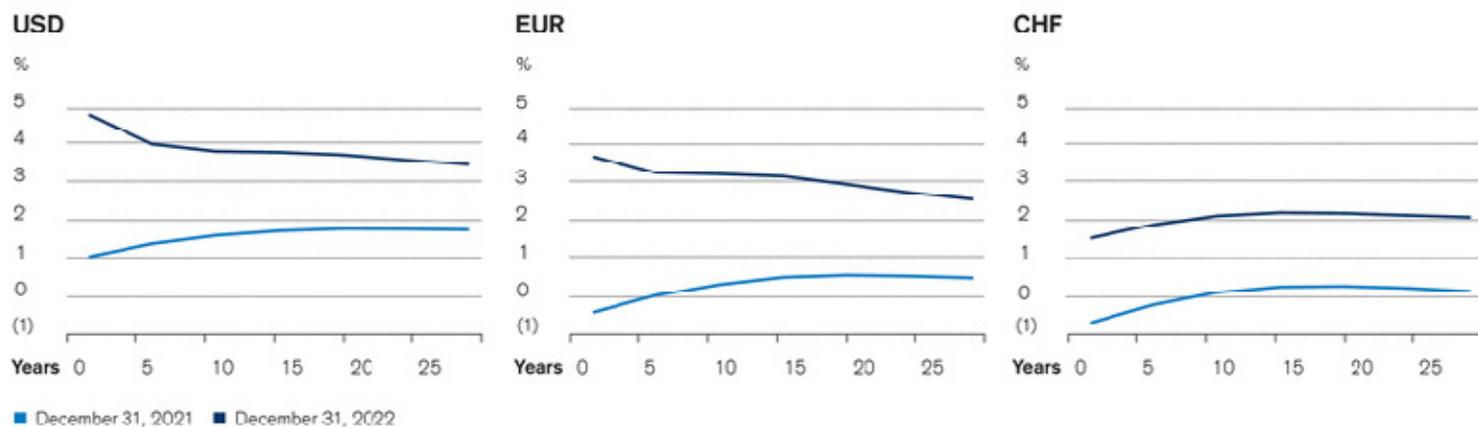
Global monetary policies tightened significantly with several major central banks increasing interest rates. The US Federal Reserve (Fed) increased its policy rate from 0-0.25% to 4.25-4.50%. The European Central Bank (ECB) increased the policy rate from -0.5% to 2.0%. Other major central banks also increased rates meaningfully, including the Bank of England and the Swiss National Bank (SNB). The Bank of Japan (BoJ) kept monetary policy accommodative but took the first steps towards tightening

by widening the target band for the 10-year yield at the end of December.

Global equities declined by 16% in 2022, the worst annual equity performance since 2008, driven by high inflation, the tightening of global monetary policies and fears of a global recession. Most major developed and emerging equity markets reported negative returns for the year. US equities declined by 19%, Swiss equities by 16% and eurozone equities decreased by 12%. Emerging market equities declined by 15%, with Latin America as the best performing emerging market region in 2022. Emerging market equities in Asia declined by 16%, mainly due to the weak performance in China, South Korea and Taiwan. Energy was the only sector with a positive performance in 2022, increasing by 53%. Technology-related sectors came under pressure as interest rates increased, with information technology, consumer discretionary and communication services declining by 30% or more. World bank stocks declined by 6% but outperformed global equities. European bank stocks increased by 5%. Equity market volatility, as measured by the Chicago Board Options Exchange Market Volatility Index (VIX) ended the year higher (refer to the charts under "Equity markets").

Yield curves

Bond yields increased in 2022 across major currencies.



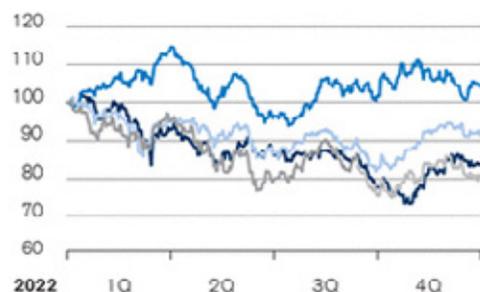
Source: Bloomberg, Credit Suisse

Equity markets

Equity prices generally declined. Bank stocks declined as well but outperformed global equities.

Performance by region

Index (December 31, 2021 = 100)

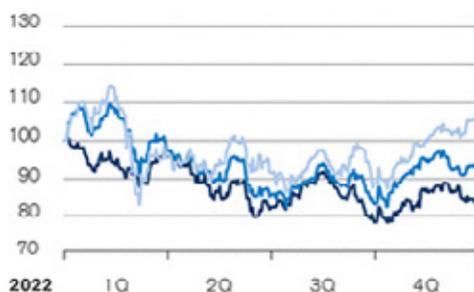


■ Emerging markets Asia
■ Emerging markets Latin America
■ Europe
■ North America

Source: Bloomberg, Credit Suisse

Performance world banks

Index (December 31, 2021 = 100)

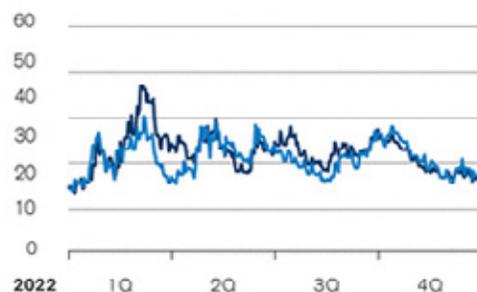


■ World banks
■ European banks

Source: Bloomberg, Credit Suisse

Volatility

%

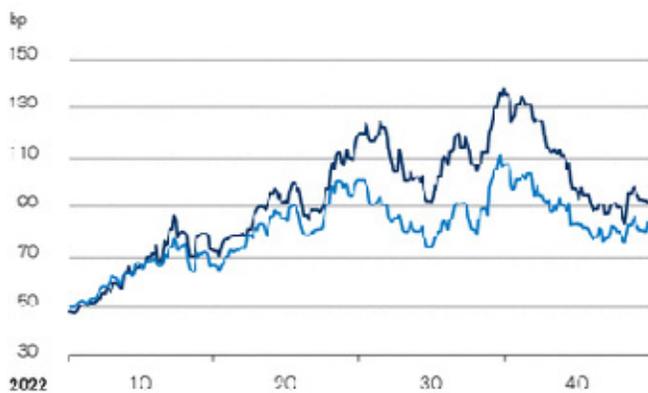


■ VIX Index
■ VDAX

Source: Bloomberg, Credit Suisse

Credit spreads

Credit spreads showed an increase in 2022 but started to tighten in the fourth quarter of 2022.



■ European CDS (iTraxx) ■ North American CDS (CDX) bp: basis points

Source: Bloomberg, Credit Suisse

In fixed income, bonds generally delivered negative returns but stabilized towards the end of 2022, reflecting market expectations of inflation possibly stabilizing and consequently less interest rate increases by central banks. Euro yield curves between the 2-year and 10-year maturities also inverted alongside US yield curves. Meanwhile, the Swiss franc yield curve remained relatively flat (refer to the charts under “Yield curves”). In credit, emerging market sovereign bonds outperformed global high-yield and investment-grade corporate bonds. Credit spreads tightened

towards the end of the year (refer to the chart under “Credit spreads”).

The US dollar outperformed major currencies in 2022. The US dollar was supported by the federal funds rate increases throughout the year. In addition, economic and geopolitical uncertainties and the respective deterioration in global risk sentiment resulted in increased demand for the US dollar and the Swiss franc, which also performed comparably well against most major currencies. Elsewhere in Europe, the proximity to Russia’s invasion of Ukraine affected most other European currencies negatively. The Japanese yen also depreciated substantially given the increasing interest rate differentials as the BoJ maintained its accommodative policy throughout 2022. Most emerging market currencies also underperformed against the US dollar. The Brazilian real was the best performing major emerging market currency, while the Turkish lira and the Argentine peso were the worst performers against the US dollar.

The Credit Suisse Commodity Benchmark increased by 25% in 2022, outperforming other risk assets significantly. Energy markets increased significantly, outperforming the benchmark, despite weaker performance in the second half of 2022. Russia’s invasion of Ukraine added further supply constraints on an already tightly supplied energy markets at the start of 2022, but inventory pressures started to ease as the year progressed. Agriculture prices increased in 2022 but underperformed the benchmark. Both industrial metals and precious metals trailed the broader commodities complex. The tightening of global monetary policies placed a relative burden on gold, and the slowdown in global industrial activity weighed on industrial metals.

Credit Suisse

In 2022, we recorded a net loss attributable to shareholders of CHF 7,293 million. Return on equity and return on tangible equity were (16.1)% and (17.4)%, respectively. As of the end of 2022, our CET1 ratio was 14.1%.

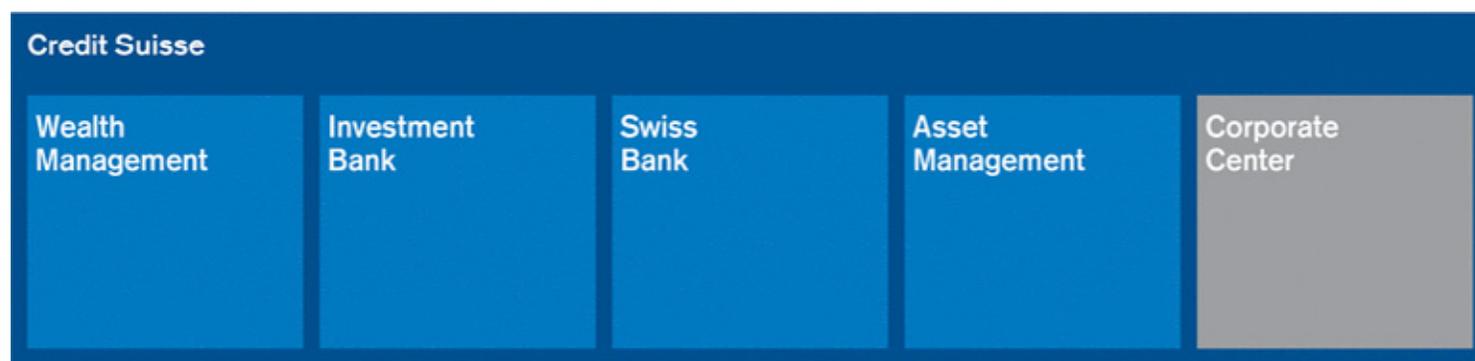
Results	in / end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Statements of operations (CHF million)					
Net interest income	5,341	5,811	5,948	(8)	(2)
Commissions and fees	8,853	13,165	11,853	(33)	11
Trading revenues ¹	(451)	2,431	3,295	—	(26)
Other revenues	1,178	1,289	1,293	(9)	0
Net revenues	14,921	22,696	22,389	(34)	1
Provision for credit losses					
	16	4,205	1,096	(100)	284
Compensation and benefits	8,813	8,963	9,890	(2)	(9)
General and administrative expenses	7,782	7,159	6,523	9	10
Commission expenses	1,012	1,243	1,256	(19)	(1)
Goodwill impairment	23	1,623	0	(99)	—
Restructuring expenses	533	103	157	417	(34)
Total other operating expenses	9,350	10,128	7,936	(8)	28
Total operating expenses	18,163	19,091	17,826	(5)	7
Income/(loss) before taxes	(3,258)	(600)	3,467	443	—
Income tax expense	4,048	1,026	801	295	28
Net income/(loss)	(7,306)	(1,626)	2,666	349	—
Net income/(loss) attributable to noncontrolling interests	(13)	24	(3)	—	—
Net income/(loss) attributable to shareholders	(7,293)	(1,650)	2,669	342	—
Economic profit (CHF million)	(6,484)	(4,251)	(1,380)	53	370
Statement of operations metrics (%)					
Cost/income ratio	121.7	84.1	79.6	—	—
Effective tax rate	(124.2)	(171.0)	23.1	—	—
Earnings per share (CHF)					
Basic earnings/(loss) per share	(2.55)	(0.63)	1.02	305	—
Diluted earnings/(loss) per share	(2.55)	(0.63)	0.99	305	—
Return on equity (%)					
Return on equity	(16.1)	(3.8)	5.9	—	—
Return on tangible equity	(17.4)	(4.2)	6.6	—	—
Book value per share (CHF)					
Book value per share	11.45	17.10	17.74	(33)	(4)
Tangible book value per share	10.60	15.86	15.80	(33)	—
Balance sheet statistics (CHF million)					
Total assets	531,358	755,833	818,965	(30)	(8)
Risk-weighted assets	250,540	267,787	275,084	(6)	(3)
Leverage exposure	650,551	889,137	812,996 ²	(27)	9
Number of employees (full-time equivalents)					
Number of employees	50,480	50,390	49,190	0	2

¹ Represent revenues on a product basis which are not representative of business results within our business segments as segment results utilize financial instruments across various product types.

² As of the end of 2020, leverage exposure excluded CHF 110,677 million of central bank reserves, after adjusting for the dividend paid in 2020, reflecting the temporary exclusion as permitted by FINMA in response to the COVID-19 pandemic.

Credit Suisse reporting structure

Credit Suisse includes the results of the four reporting segments and the Corporate Center.



Organizational structure

Effective January 1, 2023, reflecting the strategic announcement of October 27, 2022, the Group is organized into five divisions — Wealth Management, Swiss Bank, Asset Management and the Investment Bank, as well as a new Capital Release Unit. Beginning in the first quarter of 2023, our financial reporting will be presented accordingly. Core results include the results of the divisions and the Corporate Center and exclude the results of the Capital Release Unit.

- Refer to “Strategy” in I — Information on the company for further information.

Results summary

2022 results

In 2022, Credit Suisse reported a net loss attributable to shareholders of CHF 7,293 million, which included a valuation allowance in the third quarter of 2022 of CHF 3,655 million related to a reassessment of deferred tax assets as a result of the comprehensive strategic review, compared to a net loss attributable to shareholders of CHF 1,650 million in 2021. In 2022, Credit Suisse reported a loss before taxes of CHF 3,258 million, compared to a loss before taxes of CHF 600 million in 2021. The 2022 results reflected a 34% decrease in net revenues and a 5% decrease in total operating expenses. Our 2021 results included a goodwill impairment charge of CHF 1,623 million, which was recognized in the Investment Bank, as well as provision for credit losses of CHF 4,205 million, mainly driven by a net charge of CHF 4,307 million in respect of the failure by Archegos Capital Management (Archegos) to meet its margin commitments. Adjusted loss before taxes in 2022 was CHF 1,249 million compared to adjusted income before taxes of CHF 6,599 million in 2021.

Our 2022 results included a net loss of CHF 588 million relating to our equity investment in Allfunds Group, which was recognized in the divisional results of Wealth Management and real estate gains of CHF 368 million recognized primarily in the divisional results of the Swiss Bank, Wealth Management and the Investment Bank.

As of the end of 2022, our Bank for International Settlements (BIS) common equity tier 1 (CET1) ratio was 14.1% and our risk-weighted assets (RWA) were CHF 250.5 billion.

- Refer to “Capital management” in III – Treasury, Risk, Balance sheet and Off- balance sheet for further information.

As previously disclosed, Credit Suisse experienced deposit and net asset outflows in the fourth quarter of 2022. While these outflows were significant, approximately two-thirds of the outflows in the quarter were concentrated in October and had reduced substantially for the rest of the quarter. In 2023 to date, these outflows have further moderated. While the bank continues to take proactive actions to regain client inflows, lower deposits and assets under management are expected to lead to reduced net interest income and recurring commissions and fees. While this is likely to lead to a loss for Wealth Management in the first quarter of 2023, performance for the remainder of 2023 will depend on our ability to execute our strategy, net asset flows and market conditions. Strategic actions taken to significantly reduce the Group’s risk profile are expected to be reflected in our financial results and given the challenging market backdrop, we would expect the Investment Bank to report a loss in the first quarter of 2023. In light of the adverse revenue impact from the previously disclosed exit from non-core businesses and exposures and restructuring charges related to our cost transformation, Credit Suisse would also expect the Group to report a substantial loss before taxes in 2023. The Group’s actual results will depend on a number of factors, including the performance of the Investment Bank and Wealth Management divisions, the continued exit of non-core positions, any goodwill impairments, litigation, regulatory actions, credit spreads and related funding costs, the impact of continued employee attrition and the outcome of certain other items, including potential real estate sales.

2021 results

In 2021, Credit Suisse reported a net loss attributable to shareholders of CHF 1,650 million compared to net income attributable to shareholders of CHF 2,669 million in 2020. In 2021, Credit Suisse reported a loss before taxes of CHF 600 million, compared to income before taxes of CHF 3,467 million in 2020. Our 2021 results included a goodwill impairment charge of CHF 1,623 million, which was recognized in the Investment Bank. Adjusted income before taxes in 2021 was CHF 6,599

million compared to CHF 4,375 million in 2020. The 2021 results included provision for credit losses of CHF 4,205 million, mainly driven by a net charge of CHF 4,307 million in respect of the failure by Archegos to meet its margin commitments, which was reflected in the Investment Bank.

The 2021 results included a net gain of CHF 602 million relating to our equity investment in Allfunds Group (as described below), which was recognized in the divisional results of Wealth Management and a loss of CHF 70 million relating to our equity investment in the SIX Swiss Exchange (SIX) Group AG, which was recognized in the divisional results of Swiss Bank and Wealth Management. Results also included an impairment of CHF 113 million relating to York Capital Management (York), which was recognized in Asset Management.

The COVID-19 pandemic continued to affect the economic environment throughout 2021. Equity and credit markets generally performed well during the year on the increased prospect of a strong economic recovery due to significant fiscal supports, accommodative monetary policies, accelerating vaccination programs and the easing of economic and social activity lockdowns. Negative impacts related to the pandemic on a broad and diverse population of supply chains began to affect numerous business sectors in the global economy and toward the end of the year gave rise to inflationary pressures.

2022 results details

Net revenues

Compared to 2021, net revenues of CHF 14,921 million decreased 34%, with lower net revenues in the Investment Bank, Wealth Management, Swiss Bank and Asset Management. The decrease in the Investment Bank was primarily driven by significantly lower capital markets and fixed income and equity sales and trading revenues. The decrease in net revenues in Wealth Management was driven by lower other revenues, lower transaction- and performance-based revenues and lower recurring commissions and fees. The decrease in net revenues in Swiss Bank was mainly due to lower net interest income, lower transaction-based revenues and lower other revenues. The decrease in net revenues in Asset Management was driven by lower performance, transaction and placement revenue and declining management fees, reflecting lower average assets under management and increased investor bias towards passive products, partially offset by higher investment and partnership income.

Provision for credit losses

In 2022, we recorded provision for credit losses of CHF 16 million, primarily reflecting provisions of CHF 90 million in Swiss Bank, partially offset by a release of CHF 84 million in the Investment Bank in respect of the Archegos matter.

Total operating expenses

Total operating expenses of CHF 18,163 million in 2022 decreased 5% compared to 2021, mainly relating to a lower goodwill impairment charge of CHF 23 million compared to prior year of CHF 1,623 million, partially offset by increased

general and administrative expenses. General and administrative expenses increased 9%, primarily driven by higher IT, machinery and equipment expenses and by higher professional services fees. Compensation and benefits decreased 2%, mainly due to lower discretionary compensation expenses and lower deferred compensation awards. Total operating expenses in 2022 included restructuring expenses of CHF 533 million.

Income tax expense

In 2022, the Group incurred an income tax expense of CHF 4,048 million on a loss before taxes of CHF 3,258 million, primarily reflecting the valuation allowance of CHF 3,655 million in the third quarter of 2022 relating to the reassessment of deferred tax assets as a result of the strategic review, primarily due to the limited future taxable income against which deferred tax assets could be utilized.

The negative tax rate for the full year was further driven by losses in entities for which no tax accounting benefit could be recognized, as management concluded that there was limited recoverability of net deferred tax assets primarily due to limited future taxable income, as well as the non-deductible funding costs. Additionally, the Group continued to record taxes in entities with taxable profits which cannot be offset against losses of other Group entities. This inability to offset tax losses and profits is due to the fact that the Group entities are tax resident in different jurisdictions or they are tax resident in a jurisdiction where the consolidation of the entities for tax purposes is not possible.

Overall, net deferred tax assets/(liabilities) decreased CHF 4,026 million from CHF 2,953 million to CHF (1,073) million during 2022, primarily driven by the reassessment of the deferred tax assets.

- Refer to “Note 29 — Tax” in VI — Consolidated financial statements — Credit Suisse Group for further information.

2021 results details

Net revenues

Compared to 2020, net revenues of CHF 22,696 million were stable, as higher net revenues in Asset Management, the Corporate Center and Swiss Bank were offset by lower net revenues in the Investment Bank. The increase in net revenues in Asset Management was driven by higher investment and partnership income, increased performance and placement revenue, and growth in management fees, reflecting higher average assets under management. The increase in net revenues in Swiss Bank was mainly due to higher recurring commissions and fees as well as higher transaction-based revenues, partially offset by lower other revenues. The decrease in net revenues in the Investment Bank, compared to a strong prior year, reflecting lower sales and trading revenues, including a loss of CHF 470 million related to Archegos, partially offset by higher capital markets and advisory activity. Compared to 2020, net revenues in Wealth Management were stable as lower transaction-based revenues and lower net interest income were offset by higher other revenues and higher recurring commissions and fees.

Results overview

in / end of	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Corporate Center	Credit Suisse
2022 (CHF million)						
Net revenues	4,952	4,607	4,093	1,294	(25)	14,921
Provision for credit losses	9	(84)	90	2	(1)	16
Compensation and benefits	2,848	3,835	1,455	596	79	8,813
Total other operating expenses	2,726	3,972	1,003	550	1,099	9,350
of which general and administrative expenses	2,301	3,145	861	436	1,039	7,782
of which goodwill impairment	0	23	0	0	0	23
of which restructuring expenses	109	327	21	16	60	533
Total operating expenses	5,574	7,807	2,458	1,146	1,178	18,163
Income/(loss) before taxes	(631)	(3,116)	1,545	146	(1,202)	(3,258)
Economic profit (CHF million)	(1,186)	(3,810)	367	60	0	(6,484)
Cost/income ratio	112.6	169.5	60.1	88.6	—	121.7
Total assets	150,411	146,846	197,059	3,373	33,669	531,358
Goodwill	1,304	0	488	1,111	0	2,903
Risk-weighted assets	54,549	74,160	69,090	8,333	44,408	250,540
Leverage exposure	179,378	211,601	220,026	2,499	37,047	650,551
2021 (CHF million)						
Net revenues	7,031	9,908	4,316	1,508	(67)	22,696
Provision for credit losses	0	4,209	4	0	(8)	4,205
Compensation and benefits	2,766	3,892	1,438	603	264	8,963
Total other operating expenses	1,958	5,280	956	543	1,391	10,128
of which general and administrative expenses	1,571	3,017	821	426	1,324	7,159
of which goodwill impairment	0	1,623	0	0	0	1,623
of which restructuring expenses	19	71	11	3	(1)	103
Total operating expenses	4,724	9,172	2,394	1,146	1,655	19,091
Income/(loss) before taxes	2,307	(3,473)	1,918	362	(1,714)	(600)
Economic profit (CHF million)	969	(4,347)	629	215	0	(4,251)
Cost/income ratio	67.2	92.6	55.5	76.0	—	84.1
Total assets	201,326	274,112	221,478	3,603	55,314	755,833
Goodwill	1,323	—	487	1,107	0	2,917
Risk-weighted assets	59,974	84,313	68,764	8,446	46,290	267,787
Leverage exposure	233,228	347,774	247,509	2,737	57,889	889,137
2020 (CHF million)						
Net revenues	7,081	10,153	4,212	1,140	(197)	22,389
Provision for credit losses	231	588	268	0	9	1,096
Compensation and benefits	2,976	4,386	1,561	639	328	9,890
Total other operating expenses	1,821	3,269	915	473	1,458	7,936
of which general and administrative expenses	1,426	2,605	748	369	1,375	6,523
of which restructuring expenses	41	48	42	18	8	157
Total operating expenses	4,797	7,655	2,476	1,112	1,786	17,826
Income/(loss) before taxes	2,053	1,910	1,468	28	(1,992)	3,467
Economic profit (CHF million)	795	(448)	290	(40)	0	(1,380)
Cost/income ratio	67.7	75.4	58.8	97.5	—	79.6
Total assets	203,626	333,393	225,385	3,912	52,649	818,965
Goodwill	1,299	1,580	479	1,068	0	4,426
Risk-weighted assets	63,176	92,890	70,577	9,651	38,790	275,084
Leverage exposure	227,880	387,098	248,523	3,199	56,973	812,996 ¹

1 As of the end of 2020, leverage exposure excluded CHF 110,677 million of central bank reserves, after adjusting for the dividend paid in 2020, reflecting the temporary exclusion as permitted by FINMA in response to the COVID-19 pandemic.

Provision for credit losses

In 2021, we recorded provision for credit losses of CHF 4,205 million, primarily reflecting provisions of CHF 4,209 million in the Investment Bank mainly in respect of the Archegos matter. Provision for credit losses reflected CHF 4,400 million of specific provisions, partially offset by a release of CHF 235 million of non-specific provisions for expected credit losses.

Total operating expenses

We reported total operating expenses of CHF 19,091 million in 2021, a 7% increase compared to 2020, mainly relating to a goodwill impairment charge of CHF 1,623 million and increased general and administrative expenses, partially offset by lower compensation and benefits. General and administrative expenses increased 10%, primarily driven by higher professional services fees, higher litigation provisions and higher IT, machinery and equipment expenses. Litigation provisions in 2021 were mainly in connection with legacy litigation matters, including mortgage-related matters and settlements with regard to the Stadtwerke München GmbH (SWM) and the Mozambique matters, as well as provisions in connection with the supply chain finance funds (SCFF) matter. Compensation and benefits decreased 9%, mainly due to lower discretionary compensation expenses and lower deferred compensation awards, including a downward adjustment to performance share awards as a result of the full year divisional loss in the Investment Bank and malus and clawbacks of previously granted compensation awards in connection with the Archegos and the SCFF matters. Total operating expenses in 2021 included restructuring expenses of CHF 103 million.

- Refer to Note 40 – Litigation in VI – Consolidated financial statements – Credit Suisse Group for further information.

Goodwill

The strategic announcement made on November 4, 2021 required an impairment assessment of the carrying value of our goodwill position in the fourth quarter of 2021. Upon performance of that assessment, we recorded a goodwill impairment charge of CHF 1,623 million in 2021, which was recognized in the Investment Bank, and was mainly related to the acquisition of Donaldson, Lufkin & Jenrette (DLJ) in 2000. The goodwill impairment charge did not impact CET1 capital and leverage ratios.

Income tax expense

In 2021, we recorded income tax expense of CHF 1,026 million, compared to CHF 801 million in 2020. The negative effective tax rate for the full year mainly reflected the impact of the loss related to Archegos, for which only the loss attributable to non-UK operations could be recognized as a partial tax benefit, whereas, for the remainder of the loss, a valuation allowance was required.

Additionally, the tax rate reflected the impact of the non-deductible goodwill impairment, the impact of the geographical mix of results, litigation provisions, including provisions relating to the Mozambique matter, for which only limited tax benefits could be obtained, withholding taxes and non-deductible funding costs. Overall, net deferred tax assets decreased CHF 184 million to CHF 2,953 million during 2021, primarily driven by earnings, partially offset by the impact of the partial tax benefit of the loss related to Archegos, for which the Group recognized a deferred tax asset.

- Refer to “Note 29 – Tax” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Employees

As of December 31, 2022, we had 50,480 employees worldwide, of which 16,700 were in Switzerland and 33,780 were abroad.

Numer of employees

end of	2022	2021
Number of employees		
Switzerland	16,700	16,440
All other regions	33,780	33,950
Total number of employees	50,480	50,390

Based on full-time equivalents.

Organizational changes

During 2022, significant changes were made to the Board of Directors, which included the appointment of a new Chairman of the Board of Directors and the election of three new Board of Directors members at the 2022 Annual General Meeting (AGM). Also in 2022, the Board of Directors appointed a new CEO and several other new members to the Executive Board.

- Refer to “Overview” in IV – Corporate Governance for further information.

Reconciliation of adjustment items

Results excluding certain items included in our reported results are non-GAAP financial measures. Following the reorganization implemented at the beginning of 2022, we have amended the presentation of our adjusted results. Management believes that such results provide a useful presentation of our operating results for purposes of assessing our Group and divisional performance consistently over time, on a basis that excludes items that management does not consider representative of our underlying performance. Provided below is a reconciliation of our adjusted results to the most directly comparable US GAAP measures.

in	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Corporate Center	Credit Suisse
2022 (CHF million)						
Net revenues	4,952	4,607	4,093	1,294	(25)	14,921
Real estate (gains)/losses	(147)	(53)	(148)	(2)	(18)	(368)
(Gains)/losses on business sales	4	0	0	0	0	4
(Gain)/loss on equity investment in Allfunds Group	586	0	0	0	0	586
(Gain)/loss on equity investment in SIX Group AG	17	0	17	0	0	34
(Gain)/loss on equity investment in Pfandbriefbank	0	0	(6)	0	0	(6)
Impairment on York Capital Management	0	0	0	10	0	10
Archehos	0	(17)	0	0	0	(17)
Adjusted net revenues	5,412	4,537	3,956	1,302	(43)	15,164
Provision for credit losses	9	(84)	90	2	(1)	16
Archehos	0	155	0	0	0	155
Adjusted provision for credit losses	9	71	90	2	(1)	171
Total operating expenses	5,574	7,807	2,458	1,146	1,178	18,163
Goodwill impairment	—	(23)	—	—	—	(23)
Restructuring expenses	(109)	(327)	(21)	(16)	(60)	(533)
Major litigation provisions	(306)	(232)	0	0	(761)	(1,299)
Expenses related to real estate disposals	(3)	(20)	0	(1)	0	(24)
Expenses related to equity investment in Allfunds Group	(2)	0	0	0	0	(2)
Archehos	0	(40)	0	0	0	(40)
Adjusted total operating expenses	5,154	7,165	2,437	1,129	357	16,242
Income/(loss) before taxes	(631)	(3,116)	1,545	146	(1,202)	(3,258)
Adjusted income/(loss) before taxes	249	(2,699)	1,429	171	(399)	(1,249)
Adjusted economic profit	(526)	(3,497)	280	78	—	(5,089)
Adjusted return on tangible equity (%)	—	—	—	—	—	(12.3)

Reconciliation of adjustment items (continued)

in	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Corporate Center	Credit Suisse
2021 (CHF million)						
Net revenues	7,031	9,908	4,316	1,508	(67)	22,696
Real estate (gains)/losses	(19)	0	(213)	0	0	(232)
(Gains)/losses on business sales	24	0	0	0	5	29
Major litigation recovery	(49)	0	0	0	0	(49)
Valuation adjustment related to major litigation	0	0	0	0	69	69
(Gain)/loss on equity investment in Allfunds Group	(622)	0	0	0	0	(622)
(Gain)/loss on equity investment in SIX Group AG	35	0	35	0	0	70
Impairment on York Capital Management	0	0	0	113	0	113
Archehos	0	470	0	0	0	470
Adjusted net revenues	6,400	10,378	4,138	1,621	7	22,544
Provision for credit losses	0	4,209	4	0	(8)	4,205
Archehos	0	(4,307)	0	0	0	(4,307)
Adjusted provision for credit losses	0	(98)	4	0	(8)	(102)
Total operating expenses	4,724	9,172	2,394	1,146	1,655	19,091
Goodwill impairment	—	(1,623)	—	—	—	(1,623)
Restructuring expenses	(19)	(71)	(11)	(3)	1	(103)
Major litigation provisions	(62)	(149)	0	0	(1,010)	(1,221)
Expenses related to real estate disposals	(7)	(44)	(4)	(1)	0	(56)
Expenses related to equity investment in Allfunds Group	(20)	0	0	0	0	(20)
Archehos	0	(26)	0	0	5	(21)
Adjusted total operating expenses	4,616	7,259	2,379	1,142	651	16,047
Income/(loss) before taxes	2,307	(3,473)	1,918	362	(1,714)	(600)
Adjusted income/(loss) before taxes	1,784	3,217	1,755	479	(636)	6,599
Adjusted economic profit	578	670	506	304	—	808
Adjusted return on tangible equity (%)	—	—	—	—	—	11.2
2020 (CHF million)						
Net revenues	7,081	10,153	4,212	1,140	(197)	22,389
Real estate (gains)/losses	1	0	(16)	0	0	(15)
(Gain)/loss related to InvestLab transfer	(65)	0	0	(203)	0	(268)
(Gain)/loss on equity investment in Allfunds Group	(127)	0	0	0	0	(127)
(Gain)/loss on equity investment in SIX Group AG	(79)	0	(79)	0	0	(158)
(Gain)/loss on equity investment in Pfandbriefbank	0	0	(134)	0	0	(134)
Impairment on York Capital Management	0	0	0	414	0	414
Adjusted net revenues	6,811	10,153	3,983	1,351	(197)	22,101
Provision for credit losses	231	588	268	0	9	1,096
Adjusted provision for credit losses	231	588	268	0	9	1,096
Total operating expenses	4,797	7,655	2,476	1,112	1,786	17,826
Restructuring expenses	(41)	(48)	(42)	(18)	(8)	(157)
Major litigation provisions	(34)	(24)	0	0	(930)	(988)
Expenses related to real estate disposals	(5)	(40)	(4)	(2)	0	(51)
Adjusted total operating expenses	4,717	7,543	2,430	1,092	848	16,630
Income/(loss) before taxes	2,053	1,910	1,468	28	(1,992)	3,467
Adjusted income/(loss) before taxes	1,863	2,022	1,285	259	(1,054)	4,375
Adjusted economic profit	652	(363)	154	133	—	(691)
Adjusted return on tangible equity (%)	—	—	—	—	—	8.1

Other information

Strategic Review

On October 27, 2022, Credit Suisse announced a series of decisive actions following a strategic review conducted by the Board of Directors and Executive Board, focused on a restructuring of the Investment Bank, an accelerated cost transformation, and strengthened and reallocated capital. The transformation is intended to be funded through divestments, exits, capital actions and existing resources. As the Group implements these actions, restructuring costs, including from asset impairments and liability valuations, are expected to arise in connection with business activities the Group plans to exit or transfer and their related infrastructure.

- Refer to “Strategy” in I — Information on the company for further information and “Risk factors” in I — Information on the company for further information on risks that may arise in relation to these matters.

Capital increase

On November 23, 2022, the Group held an Extraordinary General Meeting, at which shareholders approved two capital increases. The Group completed the first capital increase on November 25, 2022 by way of a share placement of 462,041,884 newly issued shares to qualified investors resulting in gross proceeds of CHF 1.76 billion. The Group completed the second capital increase by way of a rights offering on December 9, 2022. By the end of the rights exercise period, 98.2% of the rights had been exercised for the issuance of 872,989,594 new shares. The remaining 16,378,864 newly issued shares for which rights were not exercised were sold in the market. The rights offering resulted in gross proceeds for the Group of CHF 2.25 billion. The capital increases resulted in 1,351,410,342 newly issued shares and gross proceeds for the Group of CHF 4.0 billion. Credit Suisse Group AG made capital contributions of CHF 3.89 billion to its wholly owned subsidiary Credit Suisse AG.

Liquidity issues in the fourth quarter of 2022

As previously disclosed, during early fourth quarter of 2022, Credit Suisse began experiencing significantly higher withdrawals of cash deposits as well as non-renewal of maturing time deposits. However, as the quarter progressed, these outflows stabilized to much lower levels but had not yet reversed by year-end, and customer deposits declined by CHF 138 billion in the fourth quarter of 2022. As is normal practice, we also limited our access to the capital markets in the period immediately preceding the strategy announcements we made on October 27, 2022. While these outflows led us to partially utilize liquidity buffers at the Group and legal entity level, and we fell below certain legal entity-level regulatory requirements, the core requirements of the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR) at the Group level were maintained at all times. The Group’s three-month average daily LCR was 144% as of the end of the fourth quarter of 2022, improved from lower levels earlier in the quarter.

Remediation plans were prepared, initiated and implemented to mitigate these outflows, including accessing the public and

private markets. We issued over USD 5 billion through three bond sales in November and December 2022, which saw strong investor demand, and an additional CHF 4 billion through our capital increases. Other steps also include certain asset disposals, including the announced sale of a significant portion of SPG and other related financing businesses. We would note that the execution of these actions and other deleveraging measures, including, but not limited to, in the non-core businesses, is also expected to strengthen liquidity ratios and, over time, reduce the funding requirements of the Group. As is common for banks, we also continue to have access to central bank funding sources if required.

These circumstances have exacerbated the risks we described under “Liquidity risk” in I — Information on the company — Risk factors.

Outflows in assets under management in the fourth quarter of 2022

As previously disclosed, Credit Suisse began experiencing deposit and net asset outflows in early fourth quarter of 2022 at levels that substantially exceeded the rates incurred in the third quarter of 2022. At the Group level, net asset outflows in the fourth quarter of 2022 were approximately 8% of assets under management as of the end of the third quarter of 2022, with approximately two-thirds of these net asset outflows in the quarter concentrated in October 2022. In Wealth Management, these outflows in the fourth quarter of 2022 had reduced substantially in the rest of the quarter from the elevated levels of early fourth quarter of 2022, but had not reversed, and represented approximately 15% of assets under management reported as of the end of the third quarter of 2022. In the Swiss Bank, these outflows in fourth quarter of 2022 broadly stabilized after the elevated levels of early fourth quarter of 2022, and represented approximately 2% of assets under management reported as of the end of the third quarter of 2022. In Asset Management, these outflows in the fourth quarter of 2022 represented 3% of assets under management reported as of the end of the third quarter of 2022.

Credit ratings downgrades

During 2022, several rating agencies downgraded our credit ratings for Credit Suisse Group AG and Credit Suisse AG.

- Refer to “Liquidity risk” in I — Information on the company — Risk factors for further information on risks that may arise in relation to these matters.
- Refer to “Credit ratings” in III — Treasury, Risk, Balance sheet and Off-balance sheet — Liquidity and funding management — Funding management for further information relating to credit ratings

Public tender offers for debt securities

On October 7, 2022, the Group announced offers by Credit Suisse International to repurchase certain senior debt securities for cash up to approximately CHF 3 billion. The offers entailed a cash tender offer in relation to eight euro or pound sterling denominated senior debt securities for an aggregate consideration of up to EUR 1 billion and a separate cash tender offer in relation to twelve US dollar denominated senior debt securities for an aggregate consideration of up to USD 2 billion. Both offers

were subject to various conditions as set out in the respective tender offer memoranda. The offers expired on November 3, 2022 and November 18, 2022, respectively, subject to the terms and conditions set out in the offer documents.

Allfunds Group

In the fourth quarter of 2022, the Group sold its entire participation in Allfunds Group plc (Allfunds Group), which represented approximately 8.6% of the share capital of Allfunds Group, through an accelerated bookbuild offering to institutional investors. Following the completion of this transaction, the Group no longer holds any shares in Allfunds Group.

Goodwill

The review of the Group's five-year financial plan to reflect the announced strategy on October 27, 2022 was finalized in the fourth quarter of 2022. The Group concluded that the estimated fair value for all of the reporting units with goodwill exceeded their related carrying values and no further impairment was necessary as of December 31, 2022.

The fair values of the Asset Management and Wealth Management reporting units both exceeded their related carrying values by less than 10%. During the fourth quarter of 2022, Credit Suisse experienced a significant level of deposit and assets under management outflows. The goodwill allocated to these reporting units became more sensitive to an impairment due to these outflows and subdued client activity. There is a significant risk of a future goodwill impairment for these reporting units if their future performance do not achieve the financial projections contained within the five-year financial plan.

As a result of the announced strategy and organizational changes, the Private Fund Group business in the Asset Management reporting unit was transferred to the Investment Bank reporting unit effective January 1, 2023, resulting in an initial transfer of approximately CHF 30 million of goodwill between the reporting units. The Group expects a full impairment in the first quarter of 2023 of the goodwill transferred to the Investment Bank.

As a result of the previously announced acquisition of The Klein Group LLC that is expected to close in the first half of 2023, the Investment Bank will initially recognize a goodwill balance of approximately CHF 60 million, which it expects to fully impair upon the closing of the acquisition.

Russia's invasion of Ukraine

In response to Russia's invasion of Ukraine, many countries across the world imposed severe sanctions against Russia's financial system and on Russian government officials and business leaders, and these sanctions have been expanded several times. The Group continues to assess the impact of the sanctions already imposed, and potential future escalations, on its exposures and client relationships. As of December 31, 2022, the Group had a net credit exposure to Russia, after specific allowances and provisions for credit losses and valuation adjustments,

of CHF 249 million, primarily related to corporates, individuals and the sovereign. The net credit exposure decreased from CHF 848 million as of December 31, 2021. In addition, Russian subsidiaries had a net asset value of approximately CHF 214 million as of December 31, 2022. The Group has further reduced Russia related exposures in the fourth quarter of 2022 as the market and counterparty situation evolved, and remaining exposures continue to be subject to ongoing monitoring and management. The Group notes that these developments may continue to affect its financial performance, including credit loss estimates and potential asset impairments.

- Refer to "Assets under Management" for further information.

Dividend proposal

Our Board of Directors proposes to the shareholders at the Annual General Meeting on April 4, 2023 a cash distribution of CHF 0.05 per share for the financial year 2022.

Supply chain finance funds

As previously reported, in early March 2021, the boards of the SCFF managed by certain Group subsidiaries decided to suspend redemptions and subscriptions of those funds to protect the interests of the funds' investors, to terminate the SCFF and to proceed to their liquidation. Those decisions were based on concerns that a substantial part of the funds' assets was subject to considerable valuation uncertainty. Credit Suisse Asset Management (Schweiz) AG (CSAM) acts as the portfolio manager of the SCFF. The assets held by the SCFF, largely consisting of notes backed by existing and future receivables, were originated and structured by Greensill Capital (UK) Limited or one of its affiliates (Greensill Capital).

The last published net asset value (NAV) of the SCFF in late February 2021 was approximately USD 10 billion in the aggregate. As of February 7, 2023, together with the cash already distributed to investors and cash remaining in the funds, total cash collected in the SCFF amounts to approximately USD 7.4 billion including the cash position in the funds at the time of suspension. Redemption payments totaling approximately USD 6.8 billion have been made to their investors. The portfolio manager continues to work to liquidate the remaining assets of the SCFF, including by engaging directly with potentially delinquent obligors and other creditors, and to file insurance claims, as appropriate. However, there remains considerable uncertainty regarding the valuation of a significant part of the remaining assets. It therefore can be assumed that the investors of the SCFF will suffer a loss. CSAM intends to take all necessary steps to collect outstanding amounts from debtors and insurers, but can give no assurance as to the final amount that may be recovered for the SCFF under such notes. The amount of loss of the investors therefore is currently unknown.

Based on currently available information, losses for the investors can be expected to occur predominantly in positions that, prior to March 31, 2021, had a NAV of approximately USD 2.3 billion in the aggregate. These positions relate primarily to three groups of companies: "GFG Alliance", Kattera and Bluestone. CSAM

continues to invest substantial efforts to maximize and expedite recovery in these positions, including pursuing consensual restructuring in addition to filing insurance claims and seeking legal enforcement of the funds' claims where appropriate. 18 insurance claims have been filed to date.

In October 2021, CSAM reached an agreement with "GFG Alliance" for the repayment in full of the portion of the "GFG Alliance" exposure relating to its Australian operations. Under the terms of this agreement, an upfront payment of AUD 129 million was made and further payments on the remaining principal of AUD 240 million, including interest, are expected through mid-2023. Overall, together with the monthly payments from November 2021 until January 2023, the total cash returned (including principal repayments and interests) is approximately AUD 329 million.

In March 2022, in connection with the 2022 AGM, Credit Suisse received a proposal from Ethos Foundation and other shareholders requesting information and that a special audit be conducted in connection with the SCFF and "Suisse Secrets" matters. The Board of Directors responded to the request for information with answers on both matters, which were made publicly available on the Credit Suisse website. On April 29, 2022, at the AGM, the shareholders of Credit Suisse Group AG rejected the proposal for a special audit.

In June 2022, CSAM reached an agreement with Bluestone Resources (Bluestone) and its shareholders for the payment of cash to noteholders, including the SCFF. This agreement includes, among other things: a two-year standstill period, during which no party may take, commence or initiate any action to exercise or enforce any claim in this context against any other party; recurring payments from Bluestone as well as recurring payments from its owners, Bluestone CEO James C. Justice III's family, of up to USD 320 million to all noteholders; and the sharing by noteholders and the Justice family in the proceeds from any sale of the Bluestone entities, in which noteholders would receive the remaining portion of the USD 320 million not yet paid, plus 50% of the sale proceeds, on an agreed upon basis.

For the Liechtenstein-domiciled Credit Suisse Supply Chain Finance Investment Grade Fund, the final payment of liquidation proceeds totaling approximately USD 31.3 million was made with value date November 11, 2022. This brought the total amount returned to investors to approximately USD 667 million, which amounts to over 99% of the fund's net asset value at the time of its suspension.

For the Credit Suisse Nova (Lux) Supply Chain Finance Investment Grade Fund, the final payment of liquidation proceeds totaling approximately USD 8.1 million was made with value date February 6, 2023. This brought the total amount returned to investors to approximately USD 258 million, which amounts to over 99% of the fund's net asset value at the time of its suspension.

A number of regulatory and other inquiries, investigations, enforcement and other actions have been initiated or are being considered in respect of this matter. Furthermore, civil actions have been filed by fund investors and other parties against Credit Suisse and certain officers and directors in various jurisdictions. Certain investors and other private parties have also filed criminal complaints against Credit Suisse and other parties in connection with this matter. As this matter develops, we may become subject to additional litigation and regulatory inquiries, investigations and actions.

On February 28, 2023, FINMA announced the conclusion of its enforcement proceedings against Credit Suisse in connection with the SCFF matter. In its order, FINMA reported that Credit Suisse had seriously breached applicable Swiss supervisory laws in this context with regard to risk management and appropriate operational structures. We would note that, over the last two years, Credit Suisse has significantly strengthened its overall risk management and controls across the Group, including in Asset Management. While FINMA recognized that Credit Suisse has already taken extensive organizational measures based on its own investigation into the SCFF matter, particularly to strengthen its governance and control processes, and FINMA is supportive of these measures, the regulator has ordered certain additional remedial measures. These include a requirement that the most important (approximately 500) business relationships must be reviewed periodically and holistically at the Executive Board level, in particular for counterparty risks, and that Credit Suisse must set up a document defining the responsibilities of approximately 600 of its highest-ranking managers. FINMA will appoint an audit officer to assess compliance with these supervisory measures. Separate from the enforcement proceeding regarding Credit Suisse, FINMA has opened four enforcement proceedings against former managers of Credit Suisse.

- Refer to "Note 40 — Litigation" in VI — Consolidated financial statements — Credit Suisse Group for a description of the regulatory and legal developments relating to this matter

We continue to analyze this matter, including with the assistance of external counsel and other experts. The Board of Directors initiated an externally led investigation of this matter, supervised by a special committee of the Board of Directors. The related report was completed, the findings were made available to the Board of Directors and the report was shared with FINMA. Given the reputational impact of the SCFF matter on us, actions have been taken against a number of employees where the Board of Directors deemed it was appropriate. In light of the ongoing recovery process and the legal complexities of the matter, there is no intention by the Board of Directors to publish the report. An internal project has been set up to further enhance governance as well as to strengthen risk management processes. The Group continues to assess the potential for recovery on behalf of the investors in the funds, and further analyze new, pending or threatened proceedings. As previously reported, the resolution of the matter, the timing of which is difficult to predict, could cause the Group to incur material losses.

Redemptions and subscriptions of certain other funds managed by CSAM that invested in part in the SCFFs were also suspended in early March 2021. The illiquid part of these funds' assets was subsequently separated into a separate share class to allow for subscriptions and redemptions of the original share classes, reflecting the liquid part of the funds' assets, to resume as of April 7, 2021. The separate share class reflecting the illiquid assets is in the process of being liquidated, and shareholders receive pro rata payments of the redemption proceeds.

Group subsidiaries also had collateralized bridge lending and other direct and indirect exposures to Greensill Capital, including exposures relating to certain fund-linked products. With respect to the collateralized bridge loan of USD 140 million, in the fourth quarter of 2022, a settlement agreement was reached, resulting in full recovery of the outstanding principal and accrued interest.

As a consequence of the SCFF matter, in 2021, previously granted compensation awards were recovered from certain individuals through malus and clawback, primarily in Asset Management.

Beginning in the fourth quarter of 2021, we introduced a fee waiver program for clients impacted by this matter wherein certain commissions and fees arising from current and future business transactions may be reimbursed on a quarterly basis, provided certain conditions are met. We incurred negative revenues of CHF 88 million in 2022 relating to this fee waiver program, primarily in Wealth Management.

- Refer to “Risk factors” in I — Information on the company for further information on risks that may arise in relation to these matters

Replacement of interbank offered rates

Following significant international and regulatory pressure to replace certain interbank offered rate (IBOR) benchmarks with alternative reference rates (ARRs), the major structural change in global financial markets is now nearing completion.

Credit Suisse's legacy non-USD LIBOR portfolio has been successfully transitioned to alternative reference rates with minimal reliance on synthetic LIBOR.

With respect to USD LIBOR settings, the Secured Overnight Financing Rate (SOFR), the alternative reference rate recommended by the Alternative Reference Rates Committee (ARRC), has already gained a significant foothold in the markets. With regulatory pressure to move new trading activity away from LIBOR, except in certain limited circumstances, SOFR has become the dominant market rate even ahead of the official cessation date for USD LIBOR.

While Credit Suisse has a significant level of liabilities and assets linked to USD LIBOR, the significant majority of the Group's legacy LIBOR portfolio has a reduced level of transition risk due to the presence of robust fallback provisions. The majority of the portfolio is made up of derivative contracts where most

counterparts have already adhered to the ISDA 2020 IBOR Fallbacks Protocol or to the June 2022 Benchmark Module to the ISDA 2021 Fallbacks Protocol, which eliminate contractual uncertainty around the discontinuation of USD LIBOR.

Under the leadership of members of the Executive Board and our business and functional leaders across the entire Group, the IBOR Transition Program remains fully engaged to facilitate the transition away from USD LIBOR by mid-2023. With respect to the remaining USD LIBOR settings, work remains focused on the five key areas identified in 2019:

- **Operational readiness and resiliency:** at the end of 2022 the Bank is operationally ready to support SOFR products in markets in which it is active. Given the significant number of USD transactions that are expected to rely on fallback provisions, operational planning is complete with tests and rehearsals under way for the transition.
- **Legal contract assessment and repapering:** for the small residual portfolio without robust fallback provisions contract assessment is complete with resources in place to accommodate contract renegotiations when our clients are ready to engage.
- **Product development and industry engagement:** Credit Suisse continues to participate in national working groups in all of our main markets and actively supports the initiatives developed in these forums. In industry and client interactions we seek to build consensus with our clients, peers and national regulators to strengthen the integrity and robustness of our core markets through the transition to ARRs. Building on our established USD franchise, we are continuing to pioneer innovative solutions in the SOFR markets.
- **Risk management and mitigation:** to manage transition risk, the Group implemented a group-wide policy to limit new LIBOR-referencing business and control the wind-down of legacy exposures in advance of the expected cessation (now June 30, 2023). Accordingly, divisional plans were developed to ensure timely compliance with the policy and limits therein. Certain milestones were put in place and are monitored to ensure the transition is progressed in a timely fashion. Modelling and other risk management systems have been revised to accommodate the transition and were successfully tested and implemented as necessary. Pricing models have been reviewed and updated where needed. While most of the remaining legacy LIBOR portfolio has reduced transition risk, we are continuing our client outreach efforts to actively transition or de-risk the residual portfolio and to keep our clients informed during the last phase of the transition.
- **Strategic Transition Planning and Communication:** aligned with regulatory guidance on the transition, Credit Suisse's businesses have developed and ratified their own transition plans. As practices and conventions converge across the markets, we believe that these plans position us to be prepared and to optimally service our clients during and after the transition. Over forty thousand of our employees have been trained on LIBOR transitions and we continue to inform our clients about the progress of the transition.
- Refer to “Risk factors” in I — Information on the company for further information on risks that may arise in relation to these matters.

Subsidiary guarantee information

The Group and the Bank have issued full, unconditional and several guarantees of Credit Suisse (USA), Inc.'s outstanding SEC-registered debt securities, which as of December 31, 2022 consisted of a single outstanding issuance with a balance of USD 742 million maturing in July 2032. Credit Suisse (USA), Inc. is an indirect, wholly owned subsidiary of the Group, and the guarantees have been in place since March 2007. In accordance with the guarantees, if Credit Suisse (USA), Inc. fails to make a timely payment under the agreements governing such debt securities, the holders of the debt securities may demand payment from either the Group or the Bank, without first proceeding against Credit Suisse (USA), Inc., but to date there has been no occasion where holders of the debt securities have demanded payment under the guarantees. The guarantee from the Group is subordinated to senior liabilities, and the guarantees from the Group and the Bank are structurally subordinated to liabilities of any of the subsidiaries of the Group or the Bank that do not guarantee the debt securities.

Format of presentation

In managing our business, revenues are evaluated in the aggregate, including an assessment of trading gains and losses and the related interest income and expense from financing and hedging positions. For this reason, specific individual revenue categories in isolation may not be indicative of performance. Certain reclassifications have been made to prior periods to conform to the current presentation.

Performance measures

Credit Suisse measures firm-wide returns against total shareholders' equity and tangible shareholders' equity, a non-GAAP financial measure also known as tangible book value. Tangible shareholders' equity is calculated by deducting goodwill and other intangible assets from total shareholders' equity as presented in our balance sheet. In addition, Credit Suisse also measures the efficiency of the firm and its divisions with regard to the usage of regulatory capital. Regulatory capital is calculated as the average of 13.5% of RWA and 4.25% of leverage exposure and return on regulatory capital, a non-GAAP financial measure, is calculated using income/(loss) after tax and assumes a tax rate of 30% for periods prior to 2020 and 25% from 2020 onward. For the Investment Bank, return on regulatory capital is based on US dollar denominated numbers. Return on regulatory capital excluding certain items included in our reported results is calculated using results excluding such items, applying the same methodology. Adjusted return on regulatory capital excluding certain items included in our reported results is calculated using results excluding such items, applying the same methodology.

The Group's economic profit is a non-GAAP financial measure, calculated using income/(loss) before tax applying a 25% tax rate less a capital charge. The capital charge is calculated based on the sum of (i) a cost of capital applied to the average regulatory capital of each of the four divisions; and (ii) a 10% cost of capital applied to the residual of the Group's average tangible equity less the sum of the regulatory capital of the four divisions. The applied cost of capital for the divisions is 8% for Wealth Management, the Swiss Bank and Asset Management and 12% for the Investment Bank. Adjusted economic profit excluding certain items

included in our reported results is calculated using results excluding such items, applying the same methodology.

Management believes that these metrics are meaningful as they are measures used and relied upon by industry analysts and investors to assess valuations and capital adequacy.

Compensation and benefits

Compensation and benefits include fixed components, such as salaries, benefits and the amortization of share-based and other deferred compensation from prior-year awards, and a discretionary variable component. The variable component reflects the performance-based variable compensation for the current year. The portion of the performance-based compensation for the current year deferred through share-based and other awards is expensed in future periods and is subject to vesting and other conditions.

Our shareholders' equity reflects the effect of share-based compensation. Share-based compensation expense (which is generally based on fair value at the time of grant) reduces equity; however, the recognition of the obligation to deliver the shares increases equity by a corresponding amount. Equity is generally unaffected by the granting and vesting of share-based awards and by the settlement of these awards through the issuance of shares from approved conditional capital. The Group may issue shares from conditional capital to meet its obligations to deliver share-based compensation awards. If Credit Suisse purchases shares from the market to meet its obligation to employees, these purchased treasury shares reduce equity by the amount of the purchase price.

- Refer to "Group compensation" in V — Compensation, "Consolidated statements of changes in equity", "Tax benefits associated with share-based compensation" in Note 29 — Tax and "Note 30 — Employee deferred compensation" in VI — Consolidated financial statements — Credit Suisse Group for further information.

Allocations and funding

Revenue sharing

Responsibility for each product is allocated to a specific segment, which records all related revenues and expenses. Revenue-sharing and service level agreements govern the compensation received by one segment for generating revenue or providing services on behalf of another. These agreements are negotiated periodically by the relevant segments on a product-by-product basis. The aim of revenue-sharing and service level agreements is to reflect the pricing structure of unrelated third-party transactions.

Cost allocation

Corporate services and business support, including in finance, operations, human resources, legal, risk management, compliance and IT, are provided by corporate functions, and the related costs are allocated to the segments and the Corporate Center based on their respective requirements and other relevant measures.

Funding

We centrally manage our funding activities. We primarily focus our issuance strategy on offering long-term debt securities at the Group level for funding and capital purposes.

- Refer to “Note 4 — Segment information” in VI — Consolidated financial statements — Credit Suisse Group for further information.

Fair valuations

Fair value can be a relevant measurement for financial instruments when it aligns the accounting for these instruments with how we manage our business. The levels of the fair value hierarchy as defined by the relevant accounting guidance are not a measurement of economic risk, but rather an indication of the observability of prices or valuation inputs.

- Refer to “Note 1 — Summary of significant accounting policies” and “Note 36 — Financial instruments” in VI — Consolidated financial statements — Credit Suisse Group for further information.

The fair value of the majority of the Group’s financial instruments is based on quoted prices in active markets (level 1) or observable inputs (level 2). These instruments include government and agency securities, certain short-term borrowings, most investment grade corporate debt, certain high yield debt securities, exchange-traded and certain over-the-counter (OTC) derivative instruments and most listed equity securities.

In addition, the Group holds financial instruments for which no prices are available and which have significant unobservable inputs (level 3). For these instruments, the determination of fair value requires subjective assessment and judgment depending on liquidity, pricing assumptions, the current economic and competitive environment and the risks affecting the specific instrument. In such circumstances, valuation is determined based on management’s own judgments about the assumptions that market participants would use in pricing the asset or liability (including assumptions about risk). These instruments include certain OTC derivatives, including interest rate, foreign exchange, equity and credit derivatives, certain corporate equity-linked securities, mortgage-related securities, private equity investments, certain loans and credit products, including leveraged finance, certain syndicated loans and certain high yield bonds.

Models were used to value financial instruments for which no prices are available and which have significant unobservable inputs (level 3). Models are developed internally and are reviewed by functions independent of the front office to ensure they are appropriate for current market conditions. The models require subjective assessment and varying degrees of judgment depending on liquidity, concentration, pricing assumptions and risks affecting the specific instrument. The models consider observable and unobservable parameters in calculating the value of these products, including certain indices relating to these products. Consideration of these indices is more significant in periods of lower market activity.

As of the end of 2022, 25% and 22% of our total assets and total liabilities, respectively, were measured at fair value.

The majority of our level 3 assets are recorded in our investment banking businesses. Total assets at fair value recorded as level 3 instruments decreased CHF 1.3 billion to CHF 9.3 billion as of the end of 2022, primarily reflecting net realized and unrealized losses, mainly in trading assets and other investments, and net settlements, mainly in loans, loans held-for-sale and trading assets.

As of the end of 2022, our level 3 assets comprised 2% of total assets and 7% of total assets measured at fair value, compared to 1% and 5%, respectively, as of the end of 2021.

We believe that the range of any valuation uncertainty, in the aggregate, would not be material to our financial condition; however, it may be material to our operating results for any particular period, depending, in part, upon the operating results for such period.

Group and Bank differences

The business of the Bank is substantially the same as the business of Credit Suisse Group, and substantially all of the Bank's operations in 2022 were conducted through the Wealth Management, Investment Bank, Swiss Bank and Asset Management segments. Certain Corporate Center activities of the Group, such as hedging activities relating to share-based compensation awards, are not

applicable to the Bank. Certain other assets, liabilities and results of operations, primarily relating to Credit Suisse Services AG, our Swiss service company, with branches in the UK, Singapore and India, and its subsidiary in Poland, are managed as part of the activities of the Group's segments. However, they are legally owned by the Group and are not part of the Bank's consolidated financial statements.

Comparison of consolidated statements of operations

in	Group			Bank		
	2022	2021	2020	2022	2021	2020
Statements of operations (CHF million)						
Net revenues	14,921	22,696	22,389	15,213	23,042	22,503
Provision for credit losses	16	4,205	1,096	15	4,209	1,092
Total operating expenses	18,163	19,091	17,826	18,529	18,924	18,200
Income/(loss) before taxes	(3,258)	(600)	3,467	(3,331)	(91)	3,211
Income tax expense	4,048	1,026	801	3,973	938	697
Net income/(loss)	(7,306)	(1,626)	2,666	(7,304)	(1,029)	2,514
Net income/(loss) attributable to noncontrolling interests	(13)	24	(3)	(31)	(100)	3
Net income/(loss) attributable to shareholders	(7,293)	(1,650)	2,669	(7,273)	(929)	2,511

Comparison of consolidated balance sheets

end of	Group		Bank	
	2022	2021	2022	2021
Balance sheet statistics (CHF million)				
Total assets	531,358	755,833	530,039	759,214
Total liabilities	486,027	711,603	481,563	711,127

Capitalization and indebtedness

end of	Group		Bank	
	2022	2021	2022	2021
Capitalization and indebtedness (CHF million)				
Due to banks	11,905	18,965	11,905	18,960
Customer deposits	233,235	392,819	234,554	393,841
Central bank funds				
purchased, securities				
sold under repurchase				
agreements and				
securities lending				
transactions	20,280	35,274	20,371	35,368
Long-term debt	157,235	166,896	150,661	160,695
Other liabilities	63,372	97,649	64,072	102,263
Total liabilities	486,027	711,603	481,563	711,127
Total equity	45,331	44,230	48,476	48,087
Total capitalization and indebtedness	531,358	755,833	530,039	759,214

Dividends from the Bank to the Group

for the financial year	2022	2021	2020	2019	2018
Dividends (CHF million)					
Dividends	200 ¹	570	11	10	10

- The Bank's total share capital is fully paid and consisted of 4,399,680,200 registered shares as of December 31, 2022. Dividends are determined in accordance with Swiss law and the Bank's articles of incorporation. Proposal of the Board of Directors to the annual general meeting of the Bank.

BIS capital metrics

end of	Group		Bank	
	2022	2021	2022	2021
Capital and risk-weighted assets (CHF million)				
CET1 capital	35,290	38,529	40,987	44,185
Tier 1 capital	50,026	54,373	54,843	59,110
Total eligible capital	50,026	54,852 ¹	54,843	59,589 ²
Risk-weighted assets	250,540	267,787	249,536	266,934

Capital ratios (%)

CET1 ratio	14.1	14.4	16.4	16.6
Tier 1 ratio	20.0	20.3	22.0	22.1
Total capital ratio	20.0	20.5 ¹	22.0	22.3 ²

- Amounts are shown on a look-through basis. Certain tier 2 instruments and their related tier 2 amortization components were subject to phase-out and are no longer eligible as of January 1, 2022. As of 2021, total eligible capital was CHF 55,074 million, including CHF 222 million of such instruments and the total capital ratio was 20.6%.

- 2 Amounts are shown on a look-through basis. Certain tier 2 instruments and their related tier 2 amortization components were subject to phase-out through January 1, 2022. As of 2021, total eligible capital was CHF 59,811 million, including CHF 222 million of such instruments and the total capital ratio was 22.4%.

Wealth Management

In 2022, we reported a loss before taxes of CHF 631 million and net revenues of CHF 4,952 million compared to income before taxes of CHF 2,307 million and net revenues of CHF 7,031 million in 2021.

Results summary

2022 results

In 2022, we reported a loss before taxes of CHF 631 million compared to income before taxes of CHF 2,307 million in 2021.

Net revenues of CHF 4,952 million decreased 30% compared to 2021, mainly driven by lower other revenues, lower transaction- and performance-based revenues and lower recurring commissions and fees. Other revenues in 2022 included losses on the equity investment in Allfunds Group of CHF 586 million and a loss on the equity investment in SIX Swiss Exchange (SIX) of CHF 17 million, partially offset by gains on the sale of real estate of CHF 142 million. Other revenues in 2021 included gains on the equity investment in Allfunds Group of

CHF 622 million, an insurance claim refund of CHF 49 million relating to a major litigation case pertaining to the settled external asset manager matter and a gain on the sale of real estate of CHF 19 million, partially offset by a loss on the equity investment in SIX of CHF 35 million and a loss on the sale of businesses of CHF 24 million. In 2022, we recorded a provision for credit losses of CHF 9 million on a net loan portfolio of CHF 78.0 billion, compared to a provision for credit losses of CHF 0 million on a net loan portfolio of CHF 103.0 billion in 2021. Total operating expenses of CHF 5,574 million increased 18% compared to 2021, primarily driven by higher general and administrative expenses, including higher litigation expenses and an impairment of IT-related assets, and restructuring expenses of CHF 109 million in 2022.

Divisional results

	in /end of			% change	
	2022	2021	2020	22/21	21/20
Statements of operations (CHF million)					
Net revenues	4,952	7,031	7,081	(30)	(1)
Provision for credit losses	9	0	231	—	(100)
Compensation and benefits	2,848	2,766	2,976	3	(7)
General and administrative expenses	2,301	1,571	1,426	46	10
Commission expenses	316	368	354	(14)	4
Restructuring expenses	109	19	41	474	—
Total other operating expenses	2,726	1,958	1,821	39	8
Total operating expenses	5,574	4,724	4,797	18	(2)
Income/(loss) before taxes	(631)	2,307	2,053	—	12
Economic profit (CHF million)	(1,186)	969	795	—	22
Statement of operations metrics					
Return on regulatory capital (%)	(5.4)	18.4	16.6	—	—
Cost/income ratio (%)	112.6	67.2	67.7	—	—
Number of relationship managers					
Number of relationship managers	1,790	1,890	1,870	(5)	1

Divisional results (continued)

	in / end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Net revenue detail (CHF million)					
Net interest income	2,103	2,110	2,358	—	(11)
Recurring commissions and fees	1,570	1,813	1,671	(13)	8
Transaction — and performance-based revenues	1,744	2,481	2,779	(30)	(11)
Other revenues	(465)	627	273	—	130
Net revenues	4,952	7,031	7,081	(30)	(1)
Balance sheet statistics (CHF million)					
Total assets	150,411	201,326	203,626	(25)	(1)
Net loans	77,968	102,993	104,636	(24)	(2)
Risk-weighted assets	54,549	59,974	63,176	(9)	(5)
Leverage exposure	179,378	233,228	227,880	(23)	2
Margins on assets under management (bp)					
Gross margin ¹	75	94	104	—	—
Net margin ²	(10)	31	30	—	—

Net interest income includes a term spread credit on stable deposit funding and a term spread charge on loans. Recurring commissions and fees includes investment product management, discretionary mandate and other asset management-related fees, fees for general banking products and services and revenues from wealth structuring solutions. Transaction — and performance-based revenues arise primarily from brokerage and product issuing fees, fees from foreign exchange client transactions, trading and sales income, equity participations income and other transaction — and performance-based income.

- 1 Net revenues divided by average assets under management.
- 2 Income before taxes divided by average assets under management.

2021 results

In 2021, income before taxes of CHF 2,307 million increased 12% compared to 2020. Net revenues of CHF 7,031 million were stable compared to 2020, as lower transaction-based revenues and lower net interest income were offset by higher other revenues and higher recurring commissions and fees. Other revenues in 2021 of CHF 627 million included gains on the equity investment in Allfunds Group of CHF 622 million, an insurance claim refund of CHF 49 million relating to a major litigation case pertaining to a settled external asset manager matter and a gain on the sale of real estate of CHF 19 million, partially offset by a loss on the equity investment in SIX of CHF 35 million and a loss on the sale of businesses of CHF 24 million. Other revenues of CHF 273 million in 2020 included a gain of CHF 127 million on the equity investment in Allfunds Group, a gain on the equity investment in SIX of CHF 79 million and a gain of CHF 65 million related to the completed transfer of the InvestLab fund platform. Provision for credit losses was CHF 0 million on a net loan portfolio of CHF 103.0 billion, compared to a provision for credit losses of CHF 231 million on a net loan portfolio of CHF 104.6 billion in 2020. Total operating expenses of CHF 4,724 million decreased 2% compared to 2020, mainly driven by lower compensation and benefits and lower restructuring costs, partially offset by higher general and administrative expenses.

Capital and leverage metrics

As of the end of 2022, we reported risk-weighted assets of CHF 54.5 billion, a decrease of CHF 5.4 billion compared to the end of 2021, mainly due to movements in risk levels in credit risk, driven by a decrease in lending exposures and a decrease in equity exposures related to the sale of our investment in Allfunds Group. Leverage exposure of CHF 179.4 billion was CHF 53.9 billion lower compared to the end of 2021, mainly driven by a decrease in high-quality liquid assets (HQLA), reflecting a decrease in cash held at central banks as a result of deposit outflows the Group experienced in the fourth quarter of 2022, and lower business usage.

Reconciliation of adjustment items

in	Wealth Management		
	2022	2021	2020
Adjusted results (CHF million)			
Net revenues	4,952	7,031	7,081
Real estate (gains)/losses	(147) ¹	(19)	1
(Gains)/losses on business sales	4	24	0
Major litigation recovery	0	(49)	0
(Gain)/loss related to InvestLab transfer	0	0	(65)
(Gain)/loss on equity investment in Allfunds Group	586	(622)	(127)
(Gain)/loss on equity investment in SIX Group AG	17	35	(79)
Adjusted net revenues	5,412	6,400	6,811
Provision for credit losses	9	0	231
Total operating expenses	5,574	4,724	4,797
Restructuring expenses	(109)	(19)	(41)
Major litigation provisions	(306)	(62)	(34)
Expenses related to real estate disposals	(3)	(7)	(5)
Expenses related to business sales	0	0	0
Expenses related to equity investment in Allfunds Group	(2)	(20)	0
Adjusted total operating expenses	5,154	4,616	4,717
Income/(loss) before taxes	(631)	2,307	2,053
Adjusted income before taxes	249	1,784	1,863
Adjusted economic profit	(526)	578	652
Adjusted return on regulatory capital (%)	2.1	14.2	15.1

Adjusted results are non-GAAP financial measures. Refer to “Reconciliation of adjustment items” in Credit Suisse for further information.

1 Of which CHF 142 million was reflected in other revenues and CHF 5 million was reflected in transaction — and performance-based revenues.

2022 results details

In 2022, we reported a loss before taxes of CHF 631 million compared to income before taxes of CHF 2,307 in 2021, primarily reflecting lower net revenues and higher operating expenses.

Net revenues

Compared to 2021, net revenues of CHF 4,952 million decreased 30%, driven by lower other revenues, lower transaction — and performance-based revenues and lower recurring commissions and fees, while net interest income was stable. Other revenues in 2022 included losses on the equity investment in Allfunds Group of CHF 586 million and a loss on the equity investment in SIX of CHF 17 million, partially offset by gains on the sale of real estate of CHF 142 million. Other revenues in 2021 included gains on the equity investment in Allfunds Group of CHF 622 million, an insurance claim refund of CHF 49 million relating to a major litigation case pertaining to the settled external asset manager matter and a gain on the sale of real estate of CHF 19 million, partially offset by a loss on the equity investment in SIX of CHF 35 million and a loss on the sale of businesses of CHF 24 million. Transaction — and performance-based revenues of CHF 1,744 million decreased 30%, mainly reflecting lower

brokerage and product issuing fees, lower revenues from Global Trading Solutions (GTS) and lower corporate advisory fees. Transaction-based revenues in 2022 included mark-to-market losses of CHF 121 million on the fair valued portfolio related to APAC Financing Group. Recurring commissions and fees of CHF 1,570 million decreased 13%, reflecting lower revenues across all categories and the impact of the lower average assets under management. Net interest income of CHF 2,103 million was stable, mainly reflecting higher deposit margins despite lower average deposit volumes, offset by stable loan margins on lower average loan volumes, higher funding costs, higher costs related to interest rate management and lower funding benefits. These results reflected the impact of higher interest rates in 2022 and the significant deposit outflows in the fourth quarter of 2022.

Provision for credit losses

The loan portfolio is comprised of lombard lending, mortgages, ship finance, export finance, aviation and yacht finance and structured lending.

In 2022, we recorded a provision for credit losses of CHF 9 million compared to CHF 0 million in 2021.

Total operating expenses

Compared to 2021, total operating expenses of CHF 5,574 million increased 18%, driven by higher general and administrative expenses, restructuring expenses of CHF 109 million in 2022 and higher compensation and benefits, partially offset by lower commission expenses. General and administrative expenses of CHF 2,301 million increased 46%, primarily reflecting higher litigation expenses, higher IT expenses, driven mainly by impairments of IT-related assets of CHF 183 million following a review of the Wealth Management technology and platform strategy in 2022, and higher allocated corporate functions costs. Compensation and benefits of CHF 2,848 million increased 3%, mainly reflecting higher allocated corporate functions costs, higher salary expenses and higher deferred compensation expenses from prior-year awards, partially offset by lower discretionary compensation expenses.

Margins

Our **gross margin** was 75 basis points in 2022, 19 basis points lower compared to 2021, driven by lower other revenues, lower transaction — and performance-based revenues and lower recurring commissions and fees, partially offset an 11.3% decrease in average assets under management.

- Refer to “Assets under management” for further information.

Our **net margin** was negative 10 basis points in 2022, 41 basis points lower compared to 2021, mainly reflecting lower net revenues and higher operating expenses.

2021 results details

Income before taxes of CHF 2,307 million increased 12% compared to 2020, primarily reflecting lower provision for credit losses and lower operating expenses, while net revenues were stable.

Net revenues

Compared to 2020, net revenues of CHF 7,031 million were stable as lower transaction-based revenues and lower net interest income were offset by higher other revenues and higher recurring commissions and fees. Transaction — and performance-based revenues of CHF 2,481 million decreased 11%, mainly reflecting lower revenues from GTS and lower client activity. Transaction-based revenues in 2021 included mark-to-market losses of CHF 18 million on the fair valued portfolio related to APAC Financing Group. Net interest income of CHF 2,110 million decreased 11%, mainly driven by lower deposit margins on higher average deposit volumes and lower loan margins on higher average loan volumes. Other revenues in 2021 of CHF 627 million included gains on the equity investment in Allfunds Group of CHF 622 million, an insurance claim refund of CHF 49

million relating to a major litigation case pertaining to the settled external asset manager matter and a gain on the sale of real estate of CHF 19 million, partially offset by a loss on the equity investment in SIX of CHF 35 million and a loss on the sale of businesses of CHF 24 million. Other revenues of CHF 273 million in 2020 included a gain of CHF 127 million on the equity investment in Allfunds Group, a gain on the equity investment in SIX of CHF 79 million and a gain of CHF 65 million related to the completed transfer of the InvestLab fund platform. Recurring commissions and fees of CHF 1,813 million increased 8%, mainly driven by higher investment product management fees, higher security account and custody services fees, higher discretionary mandate management fees and higher investment advisory fees and reflected the higher average assets under management.

Provision for credit losses

In 2021, we recorded provision for credit losses of CHF 0 million compared to CHF 231 million in 2020.

Total operating expenses

Compared to 2020, total operating expenses of CHF 4,724 million decreased 2%, mainly driven by lower compensation and benefits, largely offset by higher general and administrative expenses. Compensation and benefits of CHF 2,766 million decreased 7%, mainly reflecting lower discretionary compensation and lower allocated corporate function costs. General and administrative expenses of CHF 1,571 million increased 10%, primarily reflecting higher allocated corporate function costs and higher professional services, partially offset by lower expenses related to IT.

Assets under management

As of the end of **2022**, assets under management of CHF 540.5 billion were CHF 202.1 billion lower compared to the end of 2021, mainly driven by significant net asset outflows, unfavorable market movements and structural effects, including reclassifications of CHF 17.6 billion related to the sanctions imposed in connection with Russia's invasion of Ukraine. Net asset outflows of CHF 95.7 billion were driven by outflows across all regions and reflected the significant outflows in the fourth quarter of 2022.

- Refer to “Outflows in assets under management in the fourth quarter of 2022” in Credit Suisse — Other information for further information.

As of the end of **2021**, assets under management of CHF 742.6 billion were CHF 35.7 billion higher compared to the end of 2020, driven by favorable market movements, net new assets and favorable foreign exchange-related movements, partially offset by structural effects. Net new assets of CHF 10.5 billion mainly reflected inflows from coverage areas Latin America, External Asset Managers and Europe.

Assets under management

	in /end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Assets under management (CHF billion)					
Assets under management	540.5	742.6	706.9	(27.2)	5.1
Average assets under management	664.5	749.2	682.3	(11.3)	9.8
Assets under management by currency (CHF billion)					
USD	257.4	366.6	338.9	(29.8)	8.2
EUR	106.7	143.1	145.7	(25.4)	(1.8)
CHF	62.2	78.6	68.3	(20.9)	15.1
Other	114.2	154.3	154.0	(26.0)	0.2
Assets under management	540.5	742.6	706.9	(27.2)	5.1
Movements in assets under management (CHF billion)					
Net new assets/(net asset outflows)	(95.7)	10.5	16.8	—	—
Other effects	(106.4)	25.2	(29.5)	—	—
of which market movements	(80.7)	30.0	24.0	—	—
of which foreign exchange	0.5	6.7	(50.0)	—	—
of which other	(26.2)	(11.5)	(3.5)	—	—
Increase/(decrease) in assets under management	(202.1)	35.7	(12.7)	—	—
Movements in assets under management (%)					
Net new assets/(net asset outflows)	(12.9)	1.5	2.3	—	—
Other effects	(14.3)	3.6	(4.1)	—	—
Increase/(decrease) in assets under management	(27.2)	5.1	(1.8)	—	—

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Investment Bank

In 2022, we reported a loss before taxes of CHF 3,116 million, compared to a loss of CHF 3,473 million in 2021. Net revenues of CHF 4,607 million decreased 54% compared to 2021, reflecting declines across most businesses due to continued volatile market conditions and the impact of accelerated deleveraging in light of our strategic actions and in response to the Group's significant deposit outflows in the fourth quarter of 2022.

Results summary

2022 results

In 2022, we reported a loss before taxes of CHF 3,116 million compared to a loss of CHF 3,473 million in 2021. Net revenues of CHF 4,607 million decreased 54% compared to 2021, primarily driven by significantly lower capital markets and fixed income and equity sales and trading revenues. Market conditions,

particularly in capital markets, were characterized by geopolitical and macroeconomic uncertainty resulting in higher levels of volatility for equity and interest rates, widened credit spreads and high levels of inflation. In addition, results reflected the impact of accelerated deleveraging in light of our strategic actions and in response to the Group's significant deposit outflows in the fourth quarter of 2022.

Divisional results

	in /end of			% change	
	2022	2021	2020	22 /21	21 /20
Statements of operations (CHF million)					
Net revenues	4,607	9,908	10,153	(54)	(2)
Provision for credit losses	(84)	4,209	588	–	–
Compensation and benefits	3,835	3,892	4,386	(1)	(11)
General and administrative expenses	3,145	3,017	2,605	4	16
Commission expenses	477	569	616	(16)	(8)
Goodwill impairment	23	1,623	0	(99)	–
Restructuring expenses	327	71	48	361	48
Total other operating expenses	3,972	5,280	3,269	(25)	62
Total operating expenses	7,807	9,172	7,655	(15)	20
Income/(loss) before taxes	(3,116)	(3,473)	1,910	(10)	–
Economic profit (CHF million)	(3,810)	(4,347)	(448)	(12)	–
Statement of operations metrics					
Return on regulatory capital (%)	(18.9)	(17.6)	9.2	–	–
Cost/income ratio (%)	169.5	92.6	75.4	–	–
Balance sheet statistics (CHF million)					
Total assets	146,846	274,112	333,393	(46)	(18)
Net loans	27,324	26,291	24,054	4	9
Risk-weighted assets	74,160	84,313	92,890	(12)	(9)
Risk-weighted assets (USD)	80,179	92,193	105,476	(13)	(13)
Leverage exposure	211,601	347,774	387,098	(39)	(10)
Leverage exposure (USD)	228,776	380,278	439,547	(40)	(13)

Divisional results (continued)

	in			% change	
	2022	2021	2020	22 /21	21 /20
Net revenue detail (CHF million)					
Fixed income sales and trading	1,968	3,525	4,187	(44)	(16)
Equity sales and trading	1,091	1,792	2,261	(39)	(21)
Capital markets	756	3,589	2,964	(79)	21
Advisory and other fees	781	1,014	744	(23)	36
Other revenues ¹	11	(12)	(3)	–	300
Net revenues	4,607	9,908	10,153	(54)	(2)

¹ Other revenues include treasury funding costs and changes in the carrying value of certain investments.

Fixed income sales and trading revenues decreased 44% compared to 2021, reflecting reduced revenues in securitized products, global credit products and emerging markets, partially offset by higher macro revenues. Equity sales and trading revenues decreased 39%, driven by lower equity derivatives revenues compared to a strong 2021 and lower cash trading volumes, particularly in Asia Pacific and EMEA, partially offset by higher prime services revenues, as 2021 included a loss related to Archegos. Capital markets revenues decreased 79% compared to a strong 2021, reflecting lower issuance activity across products due to challenging market conditions and high levels of volatility. Advisory and other fees decreased 23%, reflecting lower revenues from completed mergers and acquisitions (M&A) transactions. In 2022, we recorded a release of provision for credit losses of CHF 84 million compared to provision for credit losses of CHF 4,209 million in 2021, which was driven by a charge of CHF 4,307 million in respect of the failure by Archegos to meet its margin commitments. Total operating expenses of CHF 7,807 million decreased 15% compared to 2021, which included a goodwill impairment charge of CHF 1,623 million. Adjusted total operating expenses were stable compared to 2021.

2021 results

In 2021, we reported a loss before taxes of CHF 3,473 million, driven by a loss of CHF 4,803 million in respect of the failure by Archegos to meet its margin commitments and the goodwill impairment charge of CHF 1,623 million. Adjusted income before taxes of CHF 3,217 million increased significantly compared to CHF 2,022 million in 2020. Net revenues of CHF 9,908 million decreased 2% compared to a strong prior year, reflecting lower sales and trading revenues, including a loss of CHF 470 million related to Archegos, partially offset by higher capital markets and advisory activity. Excluding Archegos, net revenues were stable. The year was characterized by constructive market conditions for many of our businesses, including higher underwriting issuance activity, driven by normalized levels of volatility, tightening of spreads and continued low interest rates. Fixed income sales and

trading revenues decreased 16% compared to a strong prior year, which benefited from more favorable market conditions, reflecting reduced trading activity in macro, global credit products and emerging markets, partially offset by significantly higher securitized products revenues.

Equity sales and trading revenues decreased 21%, mainly reflecting the loss related to Archegos in prime services. Excluding this loss, revenues decreased 5% compared to a strong 2020, in light of our strategy to resize the prime services franchise, partially offset by significantly higher equity derivatives revenues. Capital markets revenues increased 21%, reflecting strong client activity across equity and debt capital markets, driven by increased issuance activity. Advisory and other fees increased 36%, reflecting higher revenues from completed M&A transactions. Provision for credit losses was CHF 4,209 million in 2021 compared to CHF 588 million in 2020. The provision for credit losses in 2021 was driven by a charge of CHF 4,307 million related to Archegos. Total operating expenses of CHF 9,172 million increased 20%, mainly due to the goodwill impairment charge of CHF 1,623 million. Adjusted total operating expenses decreased 4% compared to 2020. In 2021, we incurred restructuring expenses of CHF 71 million.

Capital and leverage metrics

As of the end of 2022, risk-weighted assets of USD 80.2 billion decreased USD 12.0 billion compared to the end of 2021, mainly in credit risk, driven by business reductions primarily related to our strategic actions, including the impact of the substantially completed exit of the prime services franchise, and deleveraging resulting from the significant deposit outflows the Group experienced in the fourth quarter of 2022. As of the end of 2022, leverage exposure of USD 228.8 billion decreased USD 151.5 billion compared to the end of 2021, due to lower HQLA reflecting reductions in cash held at central banks and reductions in non-cash HQLA relating to the significant deposit outflows, mainly in the fourth quarter of 2022, and business reductions, including prime services.

Reconciliation of adjustment items

in	Investment Bank		
	2022	2021	2020
Adjusted results (CHF million)			
Net revenues	4,607	9,908	10,153
Real estate (gains)/losses	(53)	0	0
Archegos	(17)	470	0
Adjusted net revenues	4,537	10,378	10,153
Provision for credit losses	(84)	4,209	588
Archegos	155	(4,307)	0
Adjusted provision for credit losses	71	(98)	588
Total operating expenses	7,807	9,172	7,655
Goodwill impairment	(23)	(1,623)	0
Restructuring expenses	(327)	(71)	(48)
Major litigation provisions	(232)	(149)	(24)
Expenses related to real estate disposals	(20)	(44)	(40)
Archegos	(40)	(26)	0
Adjusted total operating expenses	7,165	7,259	7,543
Income/(loss) before taxes	(3,116)	(3,473)	1,910
Adjusted income/(loss) before taxes	(2,699)	3,217	2,022
Adjusted economic profit	(3,497)	670	(363)
Adjusted return on regulatory capital (%)	(16.4)	16.9	9.8

Adjusted results are non-GAAP financial measures. Refer to “Reconciliation of adjustment items” in Credit Suisse for further information.

2022 results details

Fixed income sales and trading

Fixed income sales and trading revenues of CHF 1,968 million decreased 44% compared to 2021, reflecting reduced revenues in securitized products, global credit products and emerging markets, partially offset by higher macro revenues. Securitized products revenues declined compared to a strong prior year and reflected lower revenues across products as we reduced inventory and announced the sale of a significant portion of the overall portfolio. Global credit products revenues decreased significantly, reflecting lower investment grade and leveraged finance trading revenues as we reduced inventory in light of our strategic actions, partially offset by increased financing revenues. In addition, emerging markets revenues decreased, driven by lower trading and financing revenues across regions. These declines were partially offset by increased macro revenues, reflecting significantly higher revenues in our rates business.

Equity sales and trading

Equity sales and trading revenues of CHF 1,091 million decreased 39% compared to 2021, reflecting lower equity derivatives and cash equities results. Equity derivatives revenues declined, reflecting lower structured and corporate equity derivatives trading activity due to reduced client activity and also as a result of the Group’s credit rating downgrades. In addition, cash equities revenues decreased due to lower secondary trading revenues, particularly in Asia Pacific and the US. This was partially offset by higher prime services revenues compared to a loss of CHF 470 million related to Archegos in prime services in 2021.

Capital markets

Capital markets revenues of CHF 756 million decreased 79% compared to a strong 2021, reflecting lower issuance activity across debt and equity capital markets. Debt capital markets revenues decreased significantly, primarily reflecting reduced street-wide leveraged finance issuance activity. Equity capital markets revenues decreased significantly, driven by lower initial public offerings (IPO) and follow-on issuance activity.

Advisory and other fees

Revenues from advisory and other fees of CHF 781 million decreased 23% compared to 2021, driven by lower revenues from completed M&A transactions.

Provision for credit losses

The Investment Bank recorded a release of provision for credit losses of CHF 84 million in 2022 compared to provision for credit losses of CHF 4,209 million in 2021, which included a charge of CHF 4,307 million related to Archegos. The release of provision for credit losses in 2022 included a release of CHF 155 million pertaining to an assessment of the future recoverability of receivables related to Archegos.

Total operating expenses

Total operating expenses of CHF 7,807 million decreased 15% compared to 2021, mainly due to the goodwill impairment charge in 2021. Adjusted total operating expenses were stable compared to 2021. Compensation and benefits of CHF 3,835 million decreased slightly, due to decreased discretionary compensation expenses and deferred compensation expenses from prior year awards, including a downward adjustment on outstanding

performance share awards reflecting the full year divisional loss and forfeitures relating to staff departures, partially offset by increased salary expenses. General and administrative expenses of CHF 3,145 million increased 4%, primarily due to increased litigation expenses, allocated corporate functions costs and professional services fees. In 2022, we incurred restructuring expenses of CHF 327 million.

2021 results details

Fixed income sales and trading

Fixed income sales and trading revenues of CHF 3,525 million decreased 16% compared to 2020, which benefited from more favorable market conditions, reflecting reduced trading activity in macro, global credit products and emerging markets, partially offset by higher securitized products revenues. Macro products revenues decreased significantly, driven by lower revenues in our rates and foreign exchange businesses due to significantly reduced volumes and volatility. In addition, global credit products revenues decreased, mainly reflecting lower investment grade and leverage finance trading activity compared to a strong prior year, which benefited from significantly higher trading volumes and client activity. In addition, emerging markets revenues decreased, driven by reduced structured credit, trading and financing activity across regions. These decreases were partially offset by higher securitized products revenues compared to a strong prior year, reflecting higher non-agency trading activity and increased asset finance revenues, partially offset by lower agency trading activity.

Equity sales and trading

Equity sales and trading revenues of CHF 1,792 million decreased 21% compared to 2020, mainly reflecting the loss of CHF 470 million related to Archegos in prime services. Excluding this loss, revenues were stable compared to a strong 2020, in light of our strategy to resize the prime services franchise, partially offset by significantly higher equity derivatives revenues. Prime services revenues significantly decreased, primarily due to the loss related to Archegos and reduced capital usage as we significantly de-risked and resized the business. Cash equities revenues decreased, reflecting lower trading activity in the US,

partially offset by higher trading activity in Asia Pacific, driven by increased client activity. These declines were partially offset by significantly higher equity derivatives revenues, reflecting increased structured trading activity.

Capital markets

Capital markets revenues of CHF 3,589 million increased 21% compared to 2020, reflecting strong client activity across equity and debt capital markets, driven by increased issuance activity. Equity capital markets revenues increased, driven by higher IPO and follow-on issuance activity. Debt capital markets revenues increased, reflecting significantly higher leveraged finance issuance activity.

Advisory and other fees

Revenues from advisory and other fees of CHF 1,014 million increased 36% compared to 2020, driven by higher revenues from completed M&A transactions.

Provision for credit losses

The Investment Bank recorded provision for credit losses of CHF 4,209 million in 2021 compared to CHF 588 million in 2020. The provision for credit losses in 2021 was driven by a charge of CHF 4,307 million related to Archegos.

Total operating expenses

Total operating expenses of CHF 9,172 million increased 20% compared to 2020, mainly due to the goodwill impairment charge. Adjusted total operating expenses decreased 4% compared to 2020. Compensation and benefits of CHF 3,892 million decreased 11%, primarily due to decreased discretionary compensation expenses and deferred compensation expenses from prior year awards, including a downward adjustment on outstanding performance share awards reflecting the full year divisional loss and malus and clawbacks of previously granted compensation awards, primarily in connection with Archegos. General and administrative expenses of CHF 3,017 million increased 16%, primarily due to increased litigation provisions, allocated corporate functions costs and professional services fees. In 2021, we incurred costs related to Archegos of CHF 26 million and restructuring expenses of CHF 71 million.

Investment banking & capital markets fees

In order to reflect the performance and capabilities of the capital markets and advisory business and for enhanced comparability versus peers, the table below shows advisory, debt capital markets and equity capital markets fees in US dollar terms. Fees are defined as gross revenues generated from advisory and capital markets activity as well as derivatives in connection with such activity, before allocated funding costs, and exclude mark-to-market movements in debt underwriting, including leveraged finance.

	in			% change	
	2022	2021	2020	22 / 21	21 / 20
Investment banking & capital markets fees (USD million)					
Advisory	849	1,168	815	(27)	43
Debt capital markets ¹	851	1,979	1,687	(57)	17
Equity capital markets	379	1,921	1,547	(80)	24
Investment banking & capital markets fees	2,079	5,068	4,049	(59)	25

¹ Excludes mark-to-market movements of USD (417) million in 2022, USD 34 million in 2021 and USD (53) million in 2020.

Swiss Bank

In 2022, we reported income before taxes of CHF 1,545 million and net revenues of CHF 4,093 million. Income before taxes decreased 19% compared to 2021, mainly reflecting lower net revenues and higher provision for credit losses.

Results summary

2022 results

In 2022, income before taxes of CHF 1,545 million decreased 19% compared to 2021. Net revenues of CHF 4,093 million decreased 5% compared to 2021, mainly due to lower net interest income, lower transaction-based revenues and lower other revenues. Other revenues in 2022 included gains on the sale of real estate of CHF 148 million, partially offset by a loss on the equity investment in SIX of CHF 17 million. Other revenues in 2021 included gains on the sale of real estate of CHF 213 million, partially offset by a loss on the equity investment in SIX of CHF 35 million. Provision for credit losses was CHF 90 million in 2022 on a net loan portfolio of CHF 157.9 billion, compared to CHF 4 million provision for credit losses on a net loan portfolio of CHF 161.2 billion in 2021. Total operating expenses of CHF 2,458 million increased 3%, mainly reflecting higher general and administrative expenses with stable compensation and benefits.

2021 results

In 2021, income before taxes of CHF 1,918 million increased 31% compared to 2020. Net revenues of CHF 4,316 million increased 2% compared to 2020, mainly reflecting higher recurring commissions and fees as well as higher transaction-based revenues, partially offset by lower other revenues. Other revenues in 2021 included the gains on the sale of real estate, partially

offset by the loss on the equity investment in SIX. Other revenues in 2020 included a gain on the equity investment in Pfandbrief-bank of CHF 134 million, a gain on the equity investment in SIX of CHF 79 million and gains on the sale of real estate of CHF 16 million. Provision for credit losses was CHF 4 million in 2021 on a net loan portfolio of CHF 161.2 billion, compared to CHF 268 million provision for credit losses on a net loan portfolio of CHF 161.8 billion in 2020. Provision for credit losses in 2021 included a release of non-specific provisions for expected credit losses of CHF 67 million. Total operating expenses of CHF 2,394 million decreased 3%, reflecting lower compensation and benefits as well as lower restructuring expenses, partially offset by higher general and administrative expenses.

Capital and leverage metrics

As of the end of 2022, we reported risk-weighted assets of CHF 69.1 billion, stable compared to the end of 2021, mainly reflecting movements in risk levels in credit risk, primarily related to advanced credit valuation adjustment, offset by internal model and parameter updates in credit risk, mainly reflecting regulatory buffers relating to commodity trade finance. Leverage exposure of CHF 220.0 billion was CHF 27.5 billion lower compared to the end of 2021, mainly driven by lower HQLA, reflecting a decrease in cash held at central banks as a result of deposit outflows the Group experienced in the fourth quarter of 2022, and lower business usage.

Divisional results

	in / end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Statements of operations (CHF million)					
Net revenues	4,093	4,316	4,212	(5)	2
Provision for credit losses	90	4	268	—	(99)
Compensation and benefits	1,455	1,438	1,561	1	(8)
General and administrative expenses	861	821	748	5	10
Commission expenses	121	124	125	(2)	(1)
Restructuring expenses	21	11	42	91	(74)
Total other operating expenses	1,003	956	915	5	4
Total operating expenses	2,458	2,394	2,476	3	(3)
Income before taxes	1,545	1,918	1,468	(19)	31
Economic profit (CHF million)	367	629	290	(42)	117
Statement of operations metrics					
Return on regulatory capital (%)	11.8	14.2	10.9	—	—
Cost/income ratio (%)	60.1	55.5	58.8	—	—

Divisional results (continued)

	in /end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Net revenue detail (CHF million)					
Net interest income	2,219	2,345	2,336	(5)	0
Recurring commissions and fees	1,293	1,302	1,190	(1)	9
Transaction-based revenues	508	561	512	(9)	10
Other revenues	73	108	174	(32)	(38)
Net revenues	4,093	4,316	4,212	(5)	2
Balance sheet statistics (CHF million)					
Total assets	197,059	221,478	225,385	(11)	(2)
Net loans	157,906	161,229	161,793	(2)	0
Risk-weighted assets	69,090	68,764	70,577	0	(3)
Leverage exposure	220,026	247,509	248,523	(11)	0
Margins on assets under management (bp)					
Gross margin ¹	73	74	81	—	—
Net margin ²	28	33	28	—	—
Number of relationship managers					
Number of relationship managers	1,670	1,630	1,690	2	(4)

Net interest income includes a term spread credit on stable deposit funding and a term spread charge on loans. Recurring commissions and fees includes investment product management, discretionary mandate and other asset management-related fees, fees for general banking products and services and revenues from wealth structuring solutions. Transaction-based revenues arise primarily from brokerage fees, fees from foreign exchange client transactions, trading and sales income, equity participations income and other transaction-based income. Other revenues include fair value gains/(losses) on synthetic securitized loan portfolios and other gains and losses.

1 Net revenues divided by average assets under management.

2 Income before taxes divided by average assets under management.

Reconciliation of adjustment items

in	Swiss Bank		
	2022	2021	2020
Results (CHF million)			
Net revenues	4,093	4,316	4,212
Real estate (gains)/losses	(148)	(213)	(16)
(Gain)/loss on equity investment in SIX Group AG	17	35	(79)
(Gain)/loss on equity investment in Pfandbriefbank	(6)	0	(134)
Adjusted net revenues	3,956	4,138	3,983
Provision for credit losses	90	4	268
Total operating expenses	2,458	2,394	2,476
Restructuring expenses	(21)	(11)	(42)
Expenses related to real estate disposals	0	(4)	(4)
Adjusted total operating expenses	2,437	2,379	2,430
Income before taxes	1,545	1,918	1,468
Adjusted income before taxes	1,429	1,755	1,285
Adjusted economic profit	280	506	154
Adjusted return on regulatory capital (%)	10.9	13.0	9.5

Adjusted results are non-GAAP financial measures. Refer to “Reconciliation of adjustment items” in Credit Suisse for further information.

2022 results details

Income before taxes of CHF 1,545 million decreased 19% compared to 2021, mainly reflecting lower net revenues and higher provision for credit losses.

Net revenues

In 2022, net revenues of CHF 4,093 million decreased 5%, mainly due to lower net interest income, lower transaction-based revenues and lower other revenues. Net interest income of CHF 2,219 million decreased 5%, primarily driven by lower treasury revenues, mainly reflecting lower SNB threshold benefits from the SNB increase of interest rates, and lower loan margins on stable average loan volumes, partially offset by higher deposit margins on lower average deposit volumes. Transaction-based revenues of CHF 508 million decreased 9%, primarily driven by lower brokerage and product issuing fees as well as losses on equity investments in 2022, partially offset by higher fees from foreign exchange client business. 2021 included valuation gains on derivatives in connection with the transition from IBOR to alternative reference rates as well as a gain on the sale of an equity investment. Other revenues in 2022 included gains on the sale of real estate of CHF 148 million, partially offset by a loss on the equity investment in SIX of CHF 17 million. Other revenues in 2021 included gains on the sale of real estate of CHF 213 million, partially offset by a loss on the equity investment in SIX of CHF 35 million. Recurring commissions and fees of CHF 1,293 million were stable, with lower investment product management fees, lower security account and custody services fees as well as lower investment advisory fees, offset by higher fees from lending activities as well as higher revenues from our investment in Swisscard.

Provision for credit losses

The loan portfolio is substantially comprised of residential mortgages in Switzerland, loans secured by real estate, securities and other financial collateral as well as unsecured loans to commercial clients and, to a lesser extent, consumer finance loans.

In 2022, we recorded provision for credit losses of CHF 90 million compared to CHF 4 million in 2021. The provisions in 2022 included specific provisions reflecting several individual cases across various industries and specific provisions related to our consumer finance business.

Total operating expenses

Compared to 2021, total operating expenses of CHF 2,458 million increased 3%, mainly reflecting higher general and administrative expenses with stable compensation and benefits. General and administrative expenses of CHF 861 million increased 5%, primarily reflecting higher allocated Group-wide risk, compliance and technology costs, higher occupancy expenses as well as higher advertising and marketing expenses, partially offset by lower professional services fees. Compensation and benefits of CHF 1,455 million were stable, with higher deferred

compensation expenses from prior-year awards and higher pension expenses, offset by lower discretionary compensation expenses and lower social security expenses.

Margins

Our **gross margin** was 73 basis points in 2022, one basis point lower compared to 2021, mainly reflecting lower net interest income, lower transaction-based revenues and lower other revenues, partially offset by a 3.8% decrease in average assets under management.

- Refer to “Assets under management” for further information.

Our **net margin** was 28 basis points in 2022, five basis points lower compared to 2021, reflecting lower net revenues, higher provision for credit losses and higher total operating expenses, partially offset by the lower average assets under management.

2021 results details

Income before taxes of CHF 1,918 million increased 31% compared to 2020, driven by lower provision for credit losses, higher net revenues and lower total operating expenses.

Net revenues

In 2021, net revenues of CHF 4,316 million increased 2%, mainly reflecting higher recurring commissions and fees as well as higher transaction-based revenues, partially offset by lower other revenues. Recurring commissions and fees of CHF 1,302 million increased 9%, primarily reflecting higher discretionary mandate management fees, higher security account and custody services fees, increased investment product management fees as well as higher revenues from our investment in Swisscard. Transaction-based revenues of CHF 561 million increased 10%, primarily driven by higher fees from foreign exchange client business, valuation gains on derivatives in connection with the transition from IBOR to alternative reference rates and a gain on the sale of an equity investment. Net interest income of CHF 2,345 million was stable, with lower loan margins on higher average loan volumes and higher treasury revenues, partially offset by lower deposit margins on higher average deposit volumes. Other revenues in 2021 included the gains on the sale of real estate of CHF 213 million, partially offset by the loss on the equity investment in SIX of CHF 35 million. Other revenues in 2020 included the gain on the equity investment in Pfandbriefbank of CHF 134 million, the gain on the equity investment in SIX of CHF 79 million and the gains on the sale of real estate of CHF 16 million.

Provision for credit losses

In 2021, we recorded provision for credit losses of CHF 4 million compared to CHF 268 million in 2020. Provision for credit losses in 2021 included specific provisions reflecting several individual cases across various industries and specific provisions related to our consumer finance business, largely offset by a release of non-specific provisions for expected credit losses of CHF 67 million.

Total operating expenses

Compared to 2020, total operating expenses of CHF 2,394 million decreased 3%, reflecting lower compensation and benefits as well as lower restructuring expenses, partially offset by higher general and administrative expenses. Compensation and benefits of CHF 1,438 million decreased 8%, primarily driven by lower discretionary compensation expenses and lower allocated corporate function costs. General and administrative expenses of CHF 821 million increased 10%, primarily reflecting higher allocated corporate function costs as well as higher advertising and marketing expenses.

Assets under management

As of the end of **2022**, assets under management of CHF 525.8 billion were CHF 72.1 billion lower compared to the end of 2021, mainly driven by unfavorable market movements and net asset outflows. Net asset outflows of CHF 5.4 billion reflected outflows in our private clients business, partially offset by inflows in our institutional clients business.

- Refer to “Outflows in assets under management in the fourth quarter of 2022” in Credit Suisse – Other information for further information.

As of the end of **2021**, assets under management of CHF 597.9 billion were CHF 46.9 billion higher compared to the end of 2020, mainly due to favorable market movements and net new assets. Net new assets of CHF 5.9 billion reflected inflows across all client segments.

Assets under management

	in / end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Assets under management (CHF billion)					
Assets under management	525.8	597.9	551.0	(12.1)	8.5
Average assets under management	558.6	580.7	520.8	(3.8)	11.5
Assets under management by currency (CHF billion)					
USD	53.5	62.0	59.5	(13.7)	4.2
EUR	22.0	27.0	23.8	(18.5)	13.4
CHF	443.1	499.9	454.9	(11.4)	9.9
Other	7.2	9.0	12.8	(20.0)	(29.7)
Assets under management	525.8	597.9	551.0	(12.1)	8.5
Movements in assets under management (CHF billion)					
Net new assets/(net asset outflows)	(5.4)	5.9	16.3	—	—
Other effects	(66.7)	41.0	10.3	—	—
of which market movements	(67.3)	39.3	17.7	—	—
of which foreign exchange	(0.6)	1.0	(5.8)	—	—
of which other	1.2	0.7	(1.6)	—	—
Increase/(decrease) in assets under management	(72.1)	46.9	26.6	—	—
Movements in assets under management (%)					
Net new assets/(net asset outflows)	(0.9)	1.1	3.1	—	—
Other effects	(11.2)	7.4	2.0	—	—
Increase/(decrease) in assets under management	(12.1)	8.5	5.1	—	—

Asset Management

In 2022, we reported income before taxes of CHF 146 million and net revenues of CHF 1,294 million. Income before taxes decreased 60% compared to 2021, driven by lower net revenues.

Results summary

2022 results

In 2022, income before taxes of CHF 146 million decreased 60% compared to 2021, reflecting lower net revenues. Net revenues of CHF 1,294 million decreased 14% compared to 2021, driven by lower performance, transaction and placement revenues and declining management fees, reflecting lower average assets under management and increased investor bias towards passive products, partially offset by higher investment and partnership income. In 2021, investment and partnership income included an impairment of CHF 113 million related to our non-controlling interest in York Capital Management (York). Total operating expenses of CHF 1,146 million were stable compared to 2021, with higher restructuring expenses and increased general and administrative expenses offset by reduced commission expenses and lower compensation and benefits.

2021 results

In 2021, we reported income before taxes of CHF 362 million, which increased significantly compared to 2020, mainly

due to higher net revenues. Net revenues of CHF 1,508 million increased 32% compared to 2020, driven by higher investment and partnership income, increased performance, transaction and placement revenues and growth in management fees, reflecting higher average assets under management. Investment and partnership income in 2021 included the impairment of CHF 113 million related to York, while 2020 included an impairment of CHF 414 million related to York, partially offset by a gain of CHF 203 million related to the completed transfer of the Invest- Lab fund platform. Total operating expenses of CHF 1,146 million increased 3% compared to 2020, mainly due to higher general and administrative expenses and commission expenses, partially offset by lower compensation and benefits and restructuring expenses incurred in 2020.

Capital and leverage metrics

As of the end of 2022, RWA of CHF 8.3 billion were stable compared to the end of 2021. Leverage exposure of CHF 2.5 billion decreased CHF 0.2 billion compared to the end of 2021.

Divisional results

	in / end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Statements of operations (CHF million)					
Net revenues	1,294	1,508	1,140	(14)	32
Provision for credit losses	2	0	0	—	—
Compensation and benefits	596	603	639	(1)	(6)
General and administrative expenses	436	426	369	2	15
Commission expenses	98	114	86	(14)	33
Restructuring expenses	16	3	18	433	—
Total other operating expenses	550	543	473	1	15
Total operating expenses	1,146	1,146	1,112	0	3
Income before taxes	146	362	28	(60)	—
Economic profit (CHF million)	60	215	(40)	(72)	—
Statement of operations metrics					
Return on regulatory capital (%)	17.5	39.2	2.8	—	—
Cost/income ratio (%)	88.6	76.0	97.5	—	—

Divisional results (continued)

	in / end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Net revenue detail (CHF million)					
Management fees	1,011	1,137	1,052	(11)	8
Performance, transaction and placement revenues	114	340	219	(66)	55
Investment and partnership income	169	31	(131)	445	—
Net revenues	1,294	1,508	1,140	(14)	32
of which recurring commissions and fees	1,012	1,139	1,057	(11)	8
of which transaction- and performance-based revenues	280	470	377	(40)	25
of which other revenues	2	(101)	(294)	—	(66)
Balance sheet statistics (CHF million)					
Total assets	3,373	3,603	3,912	(6)	(8)
Risk-weighted assets	8,333	8,446	9,651	(1)	(12)
Leverage exposure	2,499	2,737	3,199	(9)	(14)

Management fees include fees on assets under management and asset administration revenues. Performance revenues relate to the performance or return of the funds being managed and includes investment-related gains and losses from proprietary funds. Transaction fees relate to the acquisition and disposal of investments in the funds being managed. Placement revenues arise from our third-party private equity fundraising activities and secondary private equity market advisory services. Investment and partnership income includes equity participation income from seed capital returns and from minority investments in third-party asset managers, income from strategic partnerships and distribution agreements and other revenues.

Reconciliation of adjustment items

in	Asset Management		
	2022	2021	2020
Adjusted results (CHF million)			
Net revenues	1,294	1,508	1,140
Real estate (gains)/losses	(2)	0	0
(Gain)/loss related to InvestLab transfer	0	0	(203)
Impairment on York Capital Management	10	113	414
Adjusted net revenues	1,302	1,621	1,351
Provision for credit losses	2	0	0
Total operating expenses	1,146	1,146	1,112
Restructuring expenses	(16)	(3)	(18)
Expenses related to real estate disposals	(1)	(1)	(2)
Adjusted total operating expenses	1,129	1,142	1,092
Income before taxes	146	362	28
Adjusted income before taxes	171	479	259
Adjusted economic profit	78	304	133
Adjusted return on regulatory capital (%)	20.5	52.0	25.5

Adjusted results are non-GAAP financial measures. Refer to “Reconciliation of adjustment items” in Credit Suisse for further information.

2022 results details

In 2022, we reported income before taxes of CHF 146 million compared to income before taxes of CHF 362 million in 2021. The decrease reflected lower net revenues.

Net revenues

Compared to 2021, net revenues of CHF 1,294 million decreased 14%, driven by lower performance, transaction and placement revenues and declining management fees, partially offset by higher investment and partnership income. Performance, transaction and placement revenues of CHF 114 million decreased 66%, primarily due to investment related losses relative to gains in the previous year, lower placement fees and decreasing performance fees. Management fees of CHF 1,011 million decreased 11%, mainly reflecting lower average assets under management and increased investor bias towards passive products. Investment and partnership income of CHF 169 million increased significantly, mainly due to the impairment of CHF 113 million related to York in 2021.

Total operating expenses

Total operating expenses of CHF 1,146 million were stable compared to 2021, with higher restructuring expenses and increased general and administrative expenses, offset by reduced commission expenses and lower compensation and benefits. General and administrative expenses of CHF 436 million increased 2%, mainly reflecting increased allocated corporate function costs partially offset by lower professional services fees, including those relating to the wind-down and administration of our supply chain finance funds. Compensation and benefits of CHF 596 million were stable, primarily driven by lower salary expenses and discretionary compensation expenses offset by higher deferred compensation from prior year awards. 2022 included restructuring expenses of CHF 16 million.

2021 results details

In 2021, we reported income before taxes of CHF 362 million compared to CHF 28 million in 2020. The increase mainly reflected higher net revenues.

Net revenues

Compared to 2020, net revenues of CHF 1,508 million increased 32%. Investment and partnership income of CHF 31 million increased significantly, mainly due to the reduced York impairment. Investment and partnership income in 2021 included

the impairment of CHF 113 million to the valuation of our non-controlling interest in York, while 2020 included the impairment of CHF 414 million related to York, partially offset by a gain of CHF 203 million related to the completed transfer of the InvestLab fund platform. Management fees of CHF 1,137 million increased 8%, mainly reflecting higher average assets under management. Performance, transaction and placement revenues of CHF 340 million increased 55%, related to gains on seed money investments in 2021 compared to losses in 2020 and higher placement fees.

Total operating expenses

Total operating expenses of CHF 1,146 million increased 3% compared to 2020, mainly due to higher general and administrative and commission expenses, partially offset by lower compensation and benefits and higher restructuring expenses incurred in 2020. General and administrative expenses of CHF 426 million increased 15%, mainly reflecting increased professional services fees, including those relating to the wind-down and administration of our supply chain finance funds. Compensation and benefits of CHF 603 million decreased 6%, primarily driven by lower discretionary compensation expenses. 2020 included restructuring expenses of CHF 18 million.

Assets under management

As of the end of 2022, assets under management of CHF 402.4 billion were CHF 74.4 billion lower compared to the end of 2021, mainly reflecting unfavorable market movements and net asset outflows. Net asset outflows of CHF 22.6 billion were driven by outflows from traditional investments, primarily related to outflows in fixed income and equities, and from alternative investments, primarily related to outflows in credit, partially offset by inflows from investments and partnerships, primarily related to an emerging markets joint venture.

- Refer to “Outflows in assets under management in the fourth quarter of 2022” in Credit Suisse – Other information for further information.

As of the end of 2021, assets under management of CHF 476.8 billion were CHF 36.5 billion higher compared to the end of 2020, driven by favorable market movements and net new assets of CHF 14.6 billion, partially offset by structural effects of CHF 10.5 billion, mainly related to the wind-down of our supply chain finance funds. Net new assets were mainly driven by inflows from investments and partnerships, primarily related to an emerging markets joint venture, and traditional investments, primarily related to index solutions.

Assets under management

	in / end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Assets under management (CHF billion)					
Traditional investments	244.4	306.6	285.8	(20.3)	7.3
Alternative investments	110.2	116.3	109.5	(5.2)	6.2
Investments and partnerships	47.8	53.9	45.0	(11.3)	19.8
Assets under management	402.4	476.8	440.3	(15.6)	8.3
Average assets under management	440.2	463.9	428.7	(5.1)	8.2
Assets under management by currency (CHF billion)					
USD	94.8	120.8	120.8	(21.5)	—
EUR	41.4	57.4	57.5	(27.9)	(0.2)
CHF	212.0	238.7	213.5	(11.2)	11.8
Other	54.2	59.9	48.5	(9.5)	23.5
Assets under management	402.4	476.8	440.3	(15.6)	8.3
Movements in assets under management (CHF billion)					
Net new assets/(net asset outflows) ¹	(22.6)	14.6	15.5	—	—
Other effects	(51.8)	21.9	(13.1)	—	—
of which market movements	(45.8)	28.0	18.4	—	—
of which foreign exchange	(4.1)	4.4	(14.2)	—	—
of which other	(1.9)	(10.5) ²	(17.3)	—	—
Increase/(decrease) in assets under management	(74.4)	36.5	2.4	—	—
Movements in assets under management (%)					
Net new assets/(net asset outflows)	(4.7)	3.3	3.5	—	—
Other effects	(10.9)	5.0	(3.0)	—	—
Increase/(decrease) in assets under management	(15.6)	8.3	0.5	—	—

¹ Includes outflows for private equity assets reflecting realizations at cost and unfunded commitments on which a fee is no longer earned.

² Included CHF 7.9 billion relating to the exit of our supply chain finance funds business.

90 Asset Management

Corporate Center

In 2022, we reported a loss before taxes of CHF 1,202 million compared to a loss of CHF 1,714 million in 2021.

Corporate Center composition

Corporate Center includes parent company operations such as Group financing, expenses for projects sponsored by the Group, including costs associated with the evolution of our legal entity structure to meet developing and future regulatory requirements, and certain other expenses and revenues that have not been allocated to the segments. Corporate Center further includes consolidation and elimination adjustments required to eliminate intercompany revenues and expenses.

Treasury results include the impact of volatility in the valuations of certain central funding transactions such as structured notes issuances and swap transactions. Treasury results also include additional interest charges from transfer pricing to align funding costs to assets held in the Corporate Center and legacy funding costs. The Asset Resolution Unit is separately presented within our Corporate Center disclosures, including related asset funding costs. Certain activities not linked to the underlying portfolio, such as legacy funding costs, legacy litigation expenses, a specific client compliance function and noncontrolling interests without significant economic interest are recorded in the Corporate Center and are not reflected in the Asset Resolution Unit. Other revenues primarily include required elimination adjustments associated

with trading in own shares, treasury commissions charged to divisions, the cost of certain hedging transactions executed in connection with the Group's RWA and valuation hedging impacts from long-dated legacy deferred compensation and retirement programs mainly relating to former employees.

Compensation and benefits include fair value adjustments on certain deferred compensation plans not allocated to the segments and fair value adjustments on certain other long-dated legacy deferred compensation and retirement programs mainly relating to former employees.

Results summary

2022 results

In 2022, we reported a loss before taxes of CHF 1,202 million compared to a loss of CHF 1,714 million in 2021. We reported negative net revenues of CHF 25 million in 2022, primarily driven by negative treasury results. Total operating expenses of CHF 1,178 million decreased 29% compared to 2021, mainly reflecting lower general and administrative expenses and lower compensation and benefits. General and administrative expenses included litigation expenses of CHF 836 million.

Corporate Center results

	in / end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Statements of operations (CHF million)					
Treasury results	(204)	(174)	(235)	17	(26)
Asset Resolution Unit	55	(93)	(178)	—	(48)
Other	124	200	216	(38)	(7)
Net revenues	(25)	(67)	(197)	(63)	(66)
Provision for credit losses	(1)	(8)	9	(88)	—
Compensation and benefits	79	264	328	(70)	(20)
General and administrative expenses	1,039	1,324	1,375	(22)	(4)
Commission expenses	0	68	75	(100)	(9)
Restructuring expenses	60	(1)	8	—	—
Total other operating expenses	1,099	1,391	1,458	(21)	(5)
Total operating expenses	1,178	1,655	1,786	(29)	(7)
Income/(loss) before taxes	(1,202)	(1,714)	(1,992)	(30)	(14)
of which Asset Resolution Unit	(56)	(230)	(337)	(76)	(32)
Balance sheet statistics (CHF million)					
Total assets	33,669	55,314	52,649	(39)	5
Risk-weighted assets	44,408	46,290	38,790	(4)	19
Leverage exposure	37,047	57,889	56,973 ¹	(36)	2

¹ As of the end of 2020, leverage exposure did not exclude CHF 110,677 million of central bank reserves, after adjusting for the dividend paid in 2020 in connection with the temporary exclusion as permitted by FINMA in response to the COVID-19 pandemic.

Reconciliation of adjustment items

in	Corporate Center		
	2022	2021	2020
Adjusted results (CHF million)			
Net revenues	(25)	(67)	(197)
Real estate (gains)/losses	(18)	0	0
(Gains)/losses on business sales	0	5	0
Valuation adjustment related to major litigation	0	69	0
Adjusted net revenues	(43)	7	(197)
Provision for credit losses	(1)	(8)	9
Total operating expenses	1,178	1,655	1,786
Restructuring expenses	(60)	1	(8)
Major litigation provisions	(761)	(1,010)	(930)
Archehos	0	5	0
Adjusted total operating expenses	357	651	848
Income/(loss) before taxes	(1,202)	(1,714)	(1,992)
Adjusted income/(loss) before taxes	(399)	(636)	(1,054)

Adjusted results are non-GAAP financial measures. Refer to “Reconciliation of adjustment items” in Credit Suisse for further information.

2021 results

In 2021, we reported a loss before taxes of CHF 1,714 million compared to a loss of CHF 1,992 million in 2020. We reported negative net revenues of CHF 67 million in 2021, primarily driven by negative treasury results and the Asset Resolution Unit. Total operating expenses of CHF 1,655 million decreased 7% compared to 2020, mainly reflecting lower compensation and benefits and lower general and administrative expenses. General and administrative expenses included litigation expenses of CHF 1,148 million.

Capital and leverage metrics

As of the end of 2022, we reported RWA of CHF 44.4 billion, a decrease of CHF 1.9 billion compared to the end of 2021, primarily driven by movements in risk levels in credit risk, mainly due to the impact of the valuation allowance relating to the reassessment of deferred tax assets as a result of the comprehensive strategic review, partially offset by an increase in internal model and parameter updates in operational risk, mainly related to updates to our advanced measurement approach model to reflect increased litigation provisions. Leverage exposure was CHF 37.0 billion as of the end of 2022, a decrease of CHF 20.8 billion compared to the end of 2021, mainly reflecting a change in the presentation of securities lending and borrowing transactions as a single unit of account, decreased reverse repurchase transactions and reductions in treasury exposures.

2022 Results details

Net revenues

In 2022, we reported negative net revenues of CHF 25 million compared to CHF 67 million in 2021.

Negative treasury results of CHF 204 million in 2022 primarily reflected net losses of CHF 123 million from fair value option

volatility on own debt and volatility arising from hedging of that debt, losses of CHF 54 million relating to fair-valued money market instruments and losses of CHF 42 million with respect to structured notes volatility.

In the Asset Resolution Unit, we reported net revenues of CHF 55 million in 2022 compared to negative net revenues of CHF 93 million in 2021. The movement was primarily driven by lower asset funding costs and higher revenues from portfolio assets.

Other revenues of CHF 124 million decreased CHF 76 million compared to 2021, primarily reflecting a negative valuation impact from long-dated legacy deferred compensation and retirement programs, partially offset by the elimination of gains from trading in own shares and lower valuation adjustments on legacy exposures.

Provision for credit losses

In 2022, we recorded a release of provision for credit losses of CHF 1 million compared to a release of CHF 8 million in 2021.

Total operating expenses

Total operating expenses of CHF 1,178 million decreased 29% compared to 2021, primarily reflecting decreases in general and administrative expenses and compensation and benefits. General and administrative expenses of CHF 1,039 million decreased 22%, primarily reflecting lower litigation expenses. 2022 included litigation expenses of CHF 836 million, mainly in connection with legacy legal matters, including mortgage-related matters and the settlement for the French matter regarding cross-border private banking. Compensation and benefits of CHF 79 million decreased 70%, mainly reflecting decreases in deferred compensation expenses from prior-year awards and expenses for long-dated legacy deferred compensation and retirement programs. We incurred restructuring expenses of CHF 60 million in 2022.

2021 Results details

Net revenues

In 2021, we reported negative net revenues of CHF 67 million compared to CHF 197 million in 2020.

Negative treasury results of CHF 174 million in 2021 reflected net losses of CHF 133 million from fair value option volatility on own debt and volatility arising from hedging of that debt and negative revenues of CHF 51 million relating to funding activities, excluding Asset Resolution Unit-related asset funding costs. Negative revenues and losses were partially offset by gains of CHF 20 million on fair-valued money market instruments.

In the Asset Resolution Unit, we reported negative net revenues of CHF 93 million in 2021 compared to CHF 178 million in 2020. The movement was primarily driven by higher revenues from portfolio assets and lower asset funding costs.

Other revenues of CHF 200 million decreased CHF 16 million compared to 2020. 2021 included negative revenues of CHF 69 million in connection with a valuation adjustment on a legacy exposure related to the Mozambique matter.

Provision for credit losses

In 2021, we recorded a release of provision for credit losses of CHF 8 million compared to provision for credit losses of CHF 9 million in 2020.

Total operating expenses

Total operating expenses of CHF 1,655 million decreased 7% compared to 2020, primarily reflecting lower compensation and benefits and lower general and administrative expenses. Compensation and benefits of CHF 264 million decreased 20%, mainly reflecting decreases in discretionary compensation expenses, compensation and benefits related to the Asset Resolution Unit and deferred compensation expenses from prior-year awards, partially offset by the impact of corporate function allocations. General and administrative expenses of CHF 1,324 million decreased 4%, primarily reflecting lower corporate function allocations partially offset by higher litigation expenses. 2021 included litigation expenses of CHF 1,148 million, mainly in connection with legacy litigation matters, including mortgage-related matters and settlements with regard to the Stadtwerke München GmbH (SWM) and the Mozambique matters, as well as provisions in connection with the SCFF matter.

Asset Resolution Unit

	in / end of			% change	
	2022	2021	2020	22 / 21	21 / 20
Statements of operations (CHF million)					
Revenues from portfolio assets	143	90	39	59	131
Asset funding costs	(88)	(183)	(217)	(52)	(16)
Net revenues	55	(93)	(178)	—	(48)
Provision for credit losses	(1)	1	(4)	—	—
Compensation and benefits	58	72	90	(19)	(20)
General and administrative expenses	49	59	68	(17)	(13)
Commission expenses	5	5	5	0	0
Total other operating expenses	54	64	73	(16)	(12)
Total operating expenses	112	136	163	(18)	(17)
Income/(loss) before taxes	(56)	(230)	(337)	(76)	(32)
Balance sheet statistics (CHF million)					
Total assets	8,360	11,833	13,962	(29)	(15)
Risk-weighted assets (USD) ¹	5,476	7,539	10,257	(27)	(26)
Leverage exposure (USD)	13,019	18,362	22,543	(29)	(19)

¹ Risk-weighted assets excluding operational risk were USD 4,972 million, USD 6,585 million and USD 8,963 million as of the end of 2022, 2021 and 2020, respectively.

Assets under management

As of the end of 2022, assets under management were CHF 1,293.6 billion, 19.9% lower compared to the end of 2021, with net asset outflows of CHF 123.2 billion.

Assets under management

Assets under management comprise assets that are placed with us for investment purposes and include discretionary and advisory counterparty assets. Discretionary assets are assets for which the client fully transfers the discretionary power to a Credit Suisse entity with a management mandate. Discretionary assets are reported in the business in which the advice is provided as well as in the business in which the investment decisions take place. Assets managed by the Asset Management division for other businesses are reported in each applicable business and eliminated at the Group level. Advisory assets include assets placed with us where the client is provided access to investment advice but retains discretion over investment decisions.

Assets under management and net new assets include assets managed by consolidated entities, joint ventures and strategic participations. Assets from joint ventures and participations are counted in proportion to our share in the respective entity.

Assets under management and client assets

	2022	end of 2021	2020	% change	
				22 /21	21 /20
Assets under management (CHF billion)					
Wealth Management	540.5	742.6	706.9	(27.2)	5.1
Swiss Bank	525.8	597.9	551.0	(12.1)	8.5
Asset Management	402.4	476.8	440.3	(15.6)	8.3
Assets managed across businesses ¹	(175.1)	(203.3)	(186.3)	(13.9)	9.1
Assets under management	1,293.6	1,614.0	1,511.9	(19.9)	6.8
of which discretionary assets	440.8	526.6	483.0	(16.3)	9.0
of which advisory assets	852.8	1,087.4	1,028.9	(21.6)	5.7
Client assets (CHF billion) ²					
Wealth Management	723.4	995.7	940.0	(27.3)	5.9
Swiss Bank	626.8	728.7	665.6	(14.0)	9.5
Asset Management	402.4	476.8	440.3	(15.6)	8.3
Assets managed across businesses ¹	(175.1)	(203.3)	(186.3)	(13.9)	9.1
Client assets	1,577.5	1,997.9	1,859.6	(21.0)	7.4

¹ Represents assets managed by Asset Management for the other businesses.

² Client assets is a broader measure than assets under management as it includes transactional accounts and assets under custody (assets held solely for transaction-related or safekeep-ing/custody purposes) and assets of corporate clients and public institutions used primarily for cash management or transaction-related purposes.

94 Assets under management

Net new assets

Net new assets include individual cash payments, delivery of securities and cash flows resulting from loan increases or repayments.

Interest and dividend income credited to clients and commissions, interest and fees charged for banking services as well as changes in assets under management due to currency and market volatility are not taken into account when calculating net new assets. Any such changes are not directly related to the Group's success in acquiring assets under management. Similarly structural effects mainly relate to asset inflows and outflows due to acquisition or divestiture, exit from businesses or markets or exits due to new regulatory requirements and are not taken into account when calculating net new assets. The Group reviews relevant policies regarding client assets on a regular basis.

- Refer to "Note 39 – Assets under management" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Results summary

As previously disclosed, Credit Suisse began experiencing deposit and net asset outflows in early fourth quarter of 2022 at levels that substantially exceeded the rates incurred in the third quarter of 2022.

- Refer to “Outflows in assets under management in the fourth quarter of 2022” in Credit Suisse – Other information for further information.
- Refer to “Wealth Management”, “Swiss Bank” and “Asset Management” for further information.

2022 results

As of the end of 2022, assets under management of CHF 1,293.6 billion decreased CHF 320.4 billion compared to the end of 2021. The decrease was mainly driven by unfavorable market movements of CHF 165.9 billion, net asset outflows of CHF 123.2 billion and structural effects. Structural effects included certain de-risking measures, outflows and reclassifications of CHF 17.6 billion related to the sanctions imposed in connection with Russia’s invasion of Ukraine.

Net asset outflows of CHF 123.2 billion in 2022 mainly reflected outflows across the following businesses. Net asset outflows of CHF 95.7 billion in Wealth Management were driven by outflows across all regions and reflected the significant outflows in the fourth quarter of 2022. Net asset outflows of CHF 22.6 billion in Asset Management were driven by outflows from traditional investments, primarily related to outflows in fixed income and equities, and from alternative investments, primarily related to outflows in credit, partially offset by inflows from investments and partnerships, primarily related to an emerging markets joint

venture. Net asset outflows of CHF 5.4 billion in Swiss Bank reflected outflows in the private clients business, partially offset by inflows in the institutional clients business.

2021 results

As of the end of 2021, assets under management were CHF 1,614.0 billion, an increase of CHF 102.1 billion compared to the end of 2020. The increase was driven by favorable market movements, net new assets of CHF 30.9 billion and favorable foreign exchange-related movements, partially offset by structural effects. Structural effects included CHF 11.2 billion related to the SCFF matter, of which CHF 7.9 billion related to the wind-down of our supply chain finance funds, reflected in Asset Management, and CHF 3.3 billion related to the reclassification to assets under custody for our clients’ assets that were impacted by the suspension and ongoing liquidation of these funds, reflected in our wealth management businesses. Structural effects also reflected the strategic decision to exit substantially all of our prime services businesses.

Net new assets of CHF 30.9 billion in 2021 mainly reflected inflows across the following businesses. Net new assets of CHF 14.6 billion in Asset Management were mainly driven by inflows from investments and partnerships, primarily related to an emerging markets joint venture, and traditional investments, primarily related to index solutions. Net new assets of CHF 10.5 billion in Wealth Management mainly reflected inflows from coverage areas Latin America, External Asset Managers and Europe. Net new assets of CHF 5.9 billion in Swiss Bank reflected inflows across all client segments.

Movements in assets under management in	2022	2021	2020
Net new assets (CHF billion)			
Wealth Management	(95.7)	10.5	16.8
Swiss Bank	(5.4)	5.9	16.3
Asset Management ¹	(22.6)	14.6	15.5
Assets managed across businesses ²	0.5	(0.1)	(6.6)
Net new assets/(net asset outflows)	<u>(123.2)</u>	<u>30.9</u>	<u>42.0</u>
Other effects (CHF billion)			
Wealth Management	(106.4)	25.2	(29.5)
Swiss Bank	(66.7)	41.0	10.3
Asset Management	(51.8)	21.9	(13.1) ³
Assets managed across businesses ²	27.7	(16.9)	(5.0)
Other effects	<u>(197.2)</u>	<u>71.2</u>	<u>(37.3)</u>
of which market movements	(165.9)	80.8	53.4
of which foreign exchange	(4.1)	11.8	(68.1)
of which other	(27.2) ⁴	(21.4) ⁵	(22.6) ³
Growth in assets under management (CHF billion)			
Wealth Management	(202.1)	35.7	(12.7)
Swiss Bank	(72.1)	46.9	26.6
Asset Management ¹	(74.4)	36.5	2.4
Assets managed across businesses ²	28.2	(17.0)	(11.6)
Increase/(decrease) in assets under management	<u>(320.4)</u>	<u>102.1</u>	<u>4.7</u>
Net new assets (annualized) (%)			
Wealth Management	(12.9)	1.5	2.3
Swiss Bank	(0.9)	1.1	3.1
Asset Management ¹	(4.7)	3.3	3.5
Assets managed across businesses ²	(0.2)	0.1	3.8
Net new assets/(net asset outflows)	<u>(7.6)</u>	<u>2.0</u>	<u>2.8</u>
Other effects (annualized) (%)			
Wealth Management	(14.3)	3.6	(4.1)
Swiss Bank	(11.2)	7.4	2.0
Asset Management	(10.9)	5.0	(3.0)
Assets managed across businesses ²	(13.7)	9.0	2.8
Other effects	<u>(12.3)</u>	<u>4.8</u>	<u>(2.5)</u>
Movements in assets under management (annualized) (%)			
Wealth Management	(27.2)	5.1	(1.8)
Swiss Bank	(12.1)	8.5	5.1
Asset Management ¹	(15.6)	8.3	0.5
Assets managed across businesses ²	(13.9)	9.1	6.6
Increase/(decrease) in assets under management	<u>(19.9)</u>	<u>6.8</u>	<u>0.3</u>

- 1 Includes outflows for private equity assets reflecting realizations at cost and unfunded commitments on which a fee is no longer earned.
- 2 Represents assets managed by Asset Management for the other businesses.
- 3 Included CHF 14.8 billion relating to the sale of Wincasa AG in 2012 following the conclusion in 2020 of a transition period regarding the related assets under management.
- 4 Included structural effects of CHF 17.6 billion related to the sanctions imposed in connection with Russia's invasion of Ukraine.
- 5 Included structural effects of CHF 11.2 billion related to the SCFF matter, of which CHF 7.9 billion related to the wind-down of our supply chain finance funds, reflected in Asset Management, and CHF 3.3 billion related to the reclassification to assets under custody for our clients' assets that were impacted by the suspension and ongoing liquidation of these funds, reflected in our wealth management businesses. It also included structural effects reflecting the strategic decision to exit substantially all of our prime services businesses.

Critical accounting estimates

In order to prepare the consolidated financial statements in accordance with US GAAP, management is required to make certain accounting estimates to ascertain the value of assets and liabilities. These estimates are based upon judgment and the information available at the time, and actual results may differ materially from these estimates. Management believes that the estimates and assumptions used in the preparation of the consolidated financial statements are reasonable and consistently applied.

We believe that the critical accounting estimates discussed below involve the most complex judgments and assessments.

- Refer to “Note 1 – Summary of significant accounting policies” and “Note 2 – Recently issued accounting standards” in VI – Consolidated financial statements — Credit Suisse Group for further information on significant accounting policies and new accounting pronouncements. For financial information relating to the Bank, refer to the corresponding notes in the consolidated financial statements of the Bank.

Fair value

A significant portion of our financial instruments is carried at fair value. The fair value of the majority of these financial instruments is based on quoted prices in active markets or observable inputs.

In addition, we hold financial instruments for which no prices are available and which have significant unobservable inputs. For these instruments, the determination of fair value requires subjective assessment and judgment, depending on liquidity, pricing assumptions, the current economic and competitive environment and the risks affecting the specific instrument. In such circumstances, valuation is determined based on management’s own judgments about the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk. These instruments include certain OTC derivatives including interest rate, foreign exchange, equity and credit derivatives, certain corporate equity-linked securities, mortgage-related securities, private equity investments and certain loans and credit products, including leveraged finance, certain syndicated loans, certain high yield bonds and life finance instruments.

Control processes are applied to ensure that the fair values of the financial instruments reported in the consolidated financial statements, including those derived from pricing models, are appropriate and determined on a reasonable basis.

- Refer to “Note 36 – Financial instruments” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Variable interest entities

As a normal part of our business, we engage in various transactions, which include entities that are considered variable interest entities (VIEs). VIEs are special purpose entities that typically either lack sufficient equity to finance their activities without additional subordinated financial support or are structured such that the holders of the voting rights do not substantively participate in the gains and losses of the entity. Such entities are required to

be assessed for consolidation, compelling the primary beneficiary to consolidate the VIE. The primary beneficiary is the party that has the power to direct the activities that most significantly affect the economics of the VIE and has the right to receive benefits or the obligation to absorb losses of the entity that could be potentially significant to the VIE. We consolidate all VIEs for which we are the primary beneficiary. Application of the requirements for consolidation of VIEs may require the exercise of significant judgment.

- Refer to “Note 1 – Summary of significant accounting policies” and “Note 35 – Transfers of financial assets and variable interest entities” in VI – Consolidated financial statements – Credit Suisse Group for further information on VIEs.

Contingencies and loss provisions

A contingency is an existing condition that involves a degree of uncertainty that will ultimately be resolved upon the occurrence or non-occurrence of future events.

Litigation contingencies

We are involved in a number of judicial, regulatory and arbitration proceedings concerning matters arising in connection with the conduct of our businesses. Some of these proceedings have been brought on behalf of various classes of claimants and seek damages of material and/or indeterminate amounts. We accrue loss contingency litigation provisions and take a charge to income in connection with certain proceedings when losses, additional losses or ranges of loss are probable and reasonably estimable. We also accrue litigation provisions for the estimated fees and expenses of external lawyers and other service providers in relation to such proceedings, including in cases for which we have not accrued a loss contingency provision. We accrue these fee and expense litigation provisions and take a charge to income in connection therewith when such fees and expenses are probable and reasonably estimable. We review our legal proceedings each quarter to determine the adequacy of our litigation provisions and may increase or release provisions based on management’s judgment and the advice of counsel. This review includes consideration of management’s strategy for resolution of matters through settlement or trial, as well as changes in such strategy. The establishment of additional provisions or releases of litigation provisions may be necessary in the future as developments in such proceedings warrant.

It is inherently difficult to determine whether a loss is probable or even reasonably possible or to estimate the amount of any loss or loss range for many of our legal proceedings. Estimates, by their nature, are based on judgment and currently available information and involve a variety of factors, including, but not limited to, the type and nature of the proceeding, the progress of the matter, the advice of counsel, our defenses and our experience in similar matters, as well as our assessment of matters, including settlements, involving other defendants in similar or related cases or proceedings. Factual and legal determinations, many of which are complex, must be made before a loss, additional losses or ranges

of loss can be reasonably estimated for any proceeding. We do not believe that we can estimate an aggregate range of reasonably possible losses for certain of our proceedings because of their complexity, the novelty of some of the claims, the early stage of the proceedings, the limited amount of discovery that has occurred and/or other factors. Most matters pending against us seek damages of an indeterminate amount. While certain matters specify the damages claimed, such claimed amount may not represent our reasonably possible losses.

- Refer to “Note 40 – Litigation” in VI – Consolidated financial statements – Credit Suisse Group for further information on legal proceedings.

Allowance and provision for credit losses

US GAAP requires the measurement of current expected credit losses (CECL) for financial assets held at amortized cost as of the reporting date over the remaining contractual life (considering the effect of prepayments) based on historical experience, current conditions and reasonable and supportable forward-looking information, including macroeconomic scenarios. Expected credit losses are not solely derived from macroeconomic factors (MEFs) projections. Model overlays based on expert judgment are also applied, considering historical loss experience and industry and counterparty reviews, and primarily impacting certain corporate and institutional loans portfolios. Such overlays are designed to address circumstances where in management’s judgment the CECL model outputs are overly sensitive to the effect of economic inputs that exhibit significant deviation from their long-term historical averages. Overlays may also be used to capture judgment on the economic uncertainty from global or regional developments with severe impacts on economies.

- Refer to “Note 1 – Summary of significant accounting policies” and “Note 20 – Financial instruments measured at amortized cost and credit losses” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Current expected credit loss

The determination of expected credit losses across all categories of financial assets held at amortized cost requires judgment, the estimation of the amount, timing of future cash flows and collateral. The Group’s CECL calculations are outputs of complex statistical models and expert judgment overlays with a number of underlying assumptions regarding the choice of variable inputs and their interdependencies.

Scenario weight sensitivity

<u>end of</u> 2022 (CHF million)	<u>Reported</u> <u>expected</u> <u>credit losses</u>	<u>100%</u> <u>upside</u>	<u>100%</u> <u>baseline</u>	<u>100%</u> <u>downside</u>
Credit Suisse	690	423	493	933

Expected credit losses relate to non-impaired credit portfolios and include both on-balance sheet and off-balance sheet credit exposures.

Our expected credit loss models for non-impaired positions, which are based upon supportable statistical information from past experiences regarding interdependencies of MEFs and

For non-impaired credit exposures, the model parameters are based on internally and externally compiled data comprising both quantitative and qualitative factors and are tailored to various categories and exposures. The CECL measurement has three main inputs: probability of default (PD), loss given default and exposure at default.

- Refer to “Note 20 – Financial instruments measured at amortized cost and credit losses” in VI – Consolidated financial statements – Credit Suisse Group for details on the most significant of these inputs, the probability of default input.

The estimation of these parameters include the expected macroeconomic environment, the contractual maturities of exposures, historical data considering portfolio-specific factors, differences in product structure, collateral types, seniority of the claim, counter-party industry and recovery costs of any collateral that is integral to the financial asset.

There is significant judgment involved in the estimation and application of forward-looking information, including macroeconomic scenarios. The Group’s estimation of expected credit losses is based on a discounted estimate that considers future macroeconomic scenarios that are probability-weighted according to the best estimate of their relative likelihood. This estimate is based on historical frequency, current trends and conditions and MEFs such as regional gross domestic product, unemployment rates and interest rates.

- Refer to “Note 20 – Financial instruments measured at amortized cost and credit losses” in VI – Consolidated financial statements – Credit Suisse Group for details on macroeconomic factor inputs and the reasonable and support- able forecast period for these macroeconomic factors.

The expected credit loss is sensitive to the changing of scenario weights. As shown in the table below, the expected credit loss would have been CHF 493 million instead of CHF 690 million if determined solely on the baseline scenario. The effects of weighting each of the three scenarios 100% are shown in the table below. There is a high degree of estimation uncertainty in numbers representing more extreme risk scenarios when assigned a 100% weighting. The reported expected credit loss amount of CHF 690 million includes certain portfolios which are not derived via the consideration of multiple weighted scenarios.

their implications for credit risk portfolios, may not comprehensively reflect extraordinary events, such as a pandemic or a fundamental change in the world political order. Model output

is reviewed monthly on a model-by-model basis to determine whether the applied overlays are appropriate and necessary. Different overlay methodologies are adopted depending upon the type of model but typically deploy either a scaling of PD output to a more stressed historical period or alternatively adjusting the reserve to a more appropriate stressed level, taking into account forward looking as well as historical information in all instances. Group management applies a significant quantum of model overlays. These adjustments amounted to 22% of the Group's non-impaired expected credit losses as of December 31, 2022. On an individual divisional basis, the proportion of adjustments can range from as little as (3)% to as much as 53%. Post-model overlaid PDs are backtested quarterly against the trailing twelve-month default rate to confirm appropriateness. These overlays may be considered for removal when the underlying models have displayed a level of stability based upon pre-established thresholds over a three-month period.

- Refer to “Note 20 – Financial instruments measured at amortized cost and credit losses” in VI – Consolidated financial statements – Credit Suisse Group for details on how macroeconomic factors are considered in overlay calibration.

For credit-impaired financial assets, the expected credit losses are measured using the present value of estimated future cash flows (unless a practical expedient for collateral-dependent financial assets is applied), and the impaired credit exposures and related allowances are revalued to reflect the passage of time.

Expected credit losses for individually impaired credit exposures are measured by performing an in-depth review and analysis, considering factors such as recovery and exit options as well as collateral and the risk profile of the borrower. The individual measurement of expected credit losses for impaired financial assets also considers reasonable and supportable forward-looking information that is relevant to the individual counterparty (idiosyncratic information) and reflective of the macroeconomic environment that the borrower is exposed to, apart from any historical loss information and current conditions. If there are different scenarios relevant for the individual expected credit loss measurement, they are considered on a probability-weighted basis.

- Refer to “Risk Management” in III – Treasury, Risk, Balance sheet and Off- balance sheet and “Note 20 – Financial instruments measured at amortized cost and credit losses” in VI – Consolidated financial statements – Credit Suisse Group for loan portfolio disclosures, valuation adjustment disclosures and certain other information relevant to the evaluation of credit risk and credit risk management.

Goodwill impairment

Under US GAAP, goodwill is not amortized, but is reviewed for potential impairment on an annual basis as of December 31 and at any other time when events or circumstances indicate that the carrying value of goodwill may not be recoverable.

For the purpose of testing goodwill for impairment, each reporting unit is assessed individually. A reporting unit is an operating segment or one level below an operating segment, also referred to as a component. A component of an operating segment is deemed

to be a reporting unit if the component constitutes a business for which discrete financial information is available and management regularly reviews the operating results of that component.

Effective January 1, 2022, the Group was organized into four reporting units – Wealth Management, Investment Bank, Swiss Bank and Asset Management.

Subsequent to the creation of the new segment structure, effective January 1, 2022, a portion of the Wealth Management business was transferred to the Investment Bank in the second quarter of 2022. Goodwill is reallocated between reporting units on a relative fair value basis. The Group concluded that the goodwill transferred to the Investment Bank reporting unit of CHF 23 million was fully impaired.

On October 27, 2022, the Group announced an updated strategy. This announcement required a reassessment of the segment structure and an assessment to determine whether goodwill balances from the previous reporting units should be reallocated to the new reporting units on a relative fair value basis. It was concluded in the third quarter of 2022 that no material goodwill reallocation was required.

Effective January 1, 2023, the Group is organized into five reporting units – Wealth Management, Swiss Bank, Asset Management, Investment Bank and the Capital Release Unit.

Under US GAAP, a qualitative assessment is permitted to evaluate whether a reporting unit's fair value is less than its carrying value. If on the basis of the qualitative assessment it is more likely than not that the reporting unit's fair value is higher than its carrying value, no quantitative goodwill impairment test is required. If on the basis of the qualitative assessment it is more likely than not that the reporting unit's fair value is lower than its carrying value, a quantitative goodwill impairment test must be performed to identify the existence and the amount of an impairment loss, if any. The qualitative assessment is intended to be a simplification of the annual impairment test and can be bypassed for any reporting unit and any period to proceed directly to performing the quantitative goodwill impairment test. When bypassing the qualitative assessment in any period, the preparation of a qualitative assessment can be resumed in any subsequent period. It is the Group's current practice to bypass the qualitative assessment.

In addition to the annual goodwill impairment test, interim assessments are performed by the Group to identify possible triggering events – that is, the occurrence of events and changes in circumstances that would more likely than not reduce the fair value of the reporting unit below its carrying amount. Such triggering events include, but are not limited to: (i) macroeconomic conditions such as a deterioration in general economic conditions or other developments in equity and credit markets; (ii) industry and market considerations such as a deterioration in the environment in which the entity operates, an increased competitive environment, a decline in market-dependent multiples or metrics (considered in both absolute terms and relative to peers), and regulatory

or political developments; (iii) other relevant entity-specific events such as changes in management, key personnel or strategy; (iv) a more-likely-than-not expectation of selling or disposing of all, or a portion, of a reporting unit; (v) results of testing for recoverability of a significant asset group within a reporting unit; (vi) recognition of a goodwill impairment in the financial statements of a subsidiary that is a component of a reporting unit; and (vii) a sustained decrease in share price (considered in both absolute terms and relative to peers).

In accordance with the current practice of the Group, or if deemed necessary based on the Group's qualitative assessment, or upon identification of a triggering event, a quantitative impairment test is performed by calculating the fair value of the reporting unit and comparing that amount to its carrying value. If the fair value of a reporting unit exceeds its carrying value, there is no goodwill impairment. If the carrying value exceeds the fair value, there is a goodwill impairment. The goodwill impairment is calculated as the difference between the carrying value and the fair value of the reporting unit up to a maximum of the goodwill amount recorded in that reporting unit.

The carrying value of each reporting unit for the purpose of the goodwill impairment test is determined by considering the reporting units' risk-weighted assets usage, leverage ratio exposure, deferred tax assets, goodwill, intangible assets and other CET1 capital relevant adjustments. The residual value between the total of these elements and the Group's shareholders' equity is allocated to the carrying value of the reporting units on a pro-rata basis. As of December 31, 2022, this residual value was a credit of CHF 2,423 million.

In estimating the fair value of its reporting units, the Group applied a combination of the market approach and the income approach. Under the market approach, consideration was given to price to projected earnings multiples and price to book value multiples for similarly traded companies and prices paid in recent transactions that have occurred in its industry or in related industries. Under the income approach, a discount rate was applied that reflects the risk and uncertainty related to the reporting unit's projected cash flows, which were determined from the Group's financial plan.

In determining the estimated fair value, the Group relied upon its latest five-year financial plan, which included significant management assumptions and estimates based on its view of current and future economic conditions and regulatory changes.

Estimates of the Group's future earnings potential, and that of the reporting units, involve considerable judgment, including management's view on future changes in market cycles, the regulatory environment and the anticipated result of the implementation of business strategies, competitive factors and assumptions concerning the retention of key employees.

In the first quarter of 2022, the Group determined that the adverse market and economic conditions arising from Russia's invasion of Ukraine constituted a triggering event for the

first quarter of 2022 impacting all reporting units of the Group. Based on its goodwill impairment analysis performed, the Group concluded that the estimated fair value for all of the reporting units with goodwill exceeded their related carrying values and no impairments were necessary as of March 31, 2022.

Besides the transfer of a portion of the Wealth Management business to the Investment Bank, there were no other events in the second quarter of 2022 that constituted a triggering event.

The announcement on October 27, 2022 of the strategy and organizational changes as well as adverse market and economic conditions represent triggering events for the third quarter of 2022 for goodwill impairment testing purposes, and under US GAAP, goodwill has to be tested for impairment both before and immediately after a reorganization of reporting units. Based on its goodwill impairment analysis performed, the Group concluded that the estimated fair value for all of the reporting units with goodwill exceeded their related carrying values and no impairments were necessary as of September 30, 2022. The fair value of the Asset Management reporting unit exceeded its related carrying value by only 12%. The goodwill for the Asset Management reporting unit became more sensitive to an impairment due to the higher cost of equity in the third quarter of 2022.

The review of the Group's five-year financial plan to reflect the announced strategy was finalized in the fourth quarter of 2022.

The Group concluded that the estimated fair value for all of the reporting units with goodwill exceeded their related carrying values and no further impairment was necessary as of December 31, 2022.

The fair values of the Asset Management and Wealth Management reporting units both exceeded their related carrying values by less than 10%. During the fourth quarter of 2022, Credit Suisse experienced a significant level of deposit and assets under management outflows. The goodwill allocated to these reporting units became more sensitive to an impairment due to these outflows and subdued client activity. There is a significant risk of a future goodwill impairment for these reporting units if their future performances do not achieve the financial projections contained within the five-year financial plan.

As a result of the announced strategy and organizational changes, the Private Fund Group business in the Asset Management reporting unit was transferred to the Investment Bank reporting unit effective January 1, 2023, resulting in an initial transfer of approximately CHF 30 million of goodwill between the reporting units. The Group expects a full impairment in the first quarter of 2023 of the goodwill transferred to the Investment Bank.

As a result of the previously announced acquisition of The Klein Group LLC that is expected to close in the first half of 2023, the Investment Bank will initially recognize a goodwill balance

of approximately CHF 60 million, which it expects to fully impair upon the closing of the acquisition.

The results of the impairment evaluation of each reporting unit's goodwill would be significantly impacted by adverse changes in the underlying parameters used in the valuation process. If actual outcomes or the future outlook adversely differ from management's best estimates of the key economic assumptions and associated cash flows applied in the valuation of the reporting unit, the Group could potentially incur material impairment charges in the future.

- Refer to "Note 21 – Goodwill" in VI – Consolidated financial statements – Credit Suisse Group for further information on goodwill.

Taxes

Uncertainty of income tax positions

We follow the income tax guidance under US GAAP, which sets out a consistent framework to determine the appropriate level of tax reserves to maintain for uncertain income tax positions.

Significant judgment is required in determining whether it is more likely than not that an income tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position.

Further judgment is required to determine the amount of benefit eligible for recognition in the consolidated financial statements.

- Refer to "Note 29 – Tax" in VI – Consolidated financial statements – Credit Suisse Group for further information on income tax positions.

Deferred tax valuation allowances

Deferred tax assets and liabilities are recognized for the estimated future tax effects of net operating loss (NOL) carry-forwards and temporary differences between the carrying values of existing assets and liabilities and their respective tax bases at the dates of the consolidated balance sheets.

The realization of deferred tax assets on temporary differences is dependent upon the generation of taxable income during the periods in which those temporary differences become deductible. The realization of deferred tax assets on NOLs is dependent upon the generation of taxable income during the periods prior to their expiration, if applicable. Management regularly evaluates whether deferred tax assets will be realized. If management considers it more likely than not that all or a portion of a deferred tax asset will not be realized, a corresponding valuation allowance is established. In evaluating whether deferred tax assets will be realized, management considers both positive and negative evidence, including projected future taxable income, the reversal of deferred tax liabilities, which can be scheduled, and tax planning strategies.

This evaluation requires significant management judgment, primarily with respect to projected taxable income. Future taxable income can never be predicted with certainty. It is derived from budgets and strategic business plans but is dependent on

numerous factors, some of which are beyond management's control. Substantial variance of actual results from estimated future taxable profits, or changes in our estimate of future taxable profits and potential restructurings, could lead to changes in deferred tax assets being realizable, or considered realizable, and would require a corresponding adjustment to the valuation allowance.

As part of its normal practice, management has conducted a detailed evaluation of its expected future results and has also considered stress scenarios. This evaluation has indicated the expected future results that are likely to be earned in jurisdictions where the Group has significant gross deferred tax assets, such as the US, Switzerland and the UK. Management then compared those expected future results with the applicable law governing utilization of deferred tax assets. Based on the expected future results in the Bank parent company and given that the Swiss tax law allows for a seven-year carry-forward period for NOLs, a valuation allowance is still required on the deferred tax assets of this entity. UK tax law allows for an unlimited carry-forward period for NOLs, while US tax law allows for a 20-year carry-forward period for NOLs arising prior to 2017, federal NOLs generated in the tax years 2018, 2019 or 2020 to be carried back for five years and no expiry limitations for NOLs that arose in 2018 and subsequent years. However, unlimited and long expiry limitations for NOLs are not expected to have a material impact on the recoverability of the net deferred tax assets as management concluded that there was limited recoverability of the net deferred tax assets in the US and the UK as a result of the comprehensive strategic review announced on October 27, 2022, primarily due to limited future taxable income against which deferred tax assets could be utilized.

- Refer to "Note 29 – Tax" in VI – Consolidated financial statements – Credit Suisse Group for further information on deferred tax assets.

Pension plans

The Group

The Group covers pension requirements, in both Swiss and non-Swiss locations, through various defined benefit pension plans and defined contribution pension plans.

Our funding policy with respect to these pension plans is consistent with local government and tax requirements.

The Group accounts for the Group plan as a single-employer defined benefit pension plan and uses the projected unit credit actuarial method to determine the net periodic benefit costs, projected benefit obligation (PBO), accumulated benefit obligation (ABO) and the related amounts recognized in the consolidated balance sheets. The calculation of the expense and liability associated with the defined benefit pension plans requires an extensive use of assumptions, which include the discount rate, expected return on plan assets and rate of future compensation increases. Management determines these assumptions based upon currently available market and industry data and historical experience of the plans. Management also consults with

an independent actuarial firm to assist in selecting appropriate assumptions and valuing its related liabilities. Management regularly reviews the actuarial assumptions used to value and measure the defined benefit obligation on a periodic basis as required by US GAAP. The actuarial assumptions that we use may differ materially from actual results due to changing market and economic conditions and specific experience of the plans (such as investment management over or underperformance, higher or lower withdrawal rates and longer or shorter life spans of the participants). Any such differences could have a significant impact on the amount of pension expense recorded in future years.

The funded status of our defined benefit pension and other post-retirement defined benefit plans is recorded in the consolidated balance sheets. The impacts from re-measuring the funded status (reflected in actuarial gains or losses) and from amending the plan (reflected in prior service cost or credits) are recognized in equity as a component of accumulated other comprehensive income/(loss) (AOCI).

The PBO of our total defined benefit pension plans included CHF 272 million and CHF 811 million related to our assumption for future salary increases as of December 31, 2022 and 2021. The ABO is defined as the PBO less the amount related to estimated future salary increases. The difference between the fair value of plan assets and the ABO was an overfunding of CHF 4,237 million for 2022, compared to CHF 4,822 million for 2021.

We are required to estimate the expected long-term rate of return on plan assets, which is then used to compute benefit costs recorded in the consolidated statements of operations. Estimating future returns on plan assets is particularly subjective, as the estimate requires an assessment of possible future market returns based on the plan asset mix. In calculating pension expense and in determining the expected long-term rate of return, we use the market-related value of assets. The assumptions used to determine the benefit obligation as of the measurement date are also used to calculate the net periodic benefit costs for the 12-month period following this date.

The expected weighted-average long-term rate of return used to determine the expected return on plan assets as a component of the net periodic benefit costs in 2022 and 2021 was 2.50% for the Swiss plan and 2.01% and 1.79%, respectively, for the international plans. In 2022, if the expected long-term rate of return had been increased/decreased one percentage point, net pension expense for the Swiss plan would have decreased/increased CHF 176 million and net pension expense for the international plans would have decreased/increased CHF 34 million.

The discount rates used in determining the benefit obligation and the pension expense are based on yield curves, constructed from high-quality corporate bonds currently available and observable in the market and are expected to be available during the period to maturity of the pension benefits. In countries where there is no deep market in high-quality corporate bonds with longer

durations, the best available market information is used to construct the yield curve. Credit Suisse uses the spot rate approach for determining the benefit obligation and for service and interest cost components of the pension expense for future years. Under the spot rate approach, individual spot rates along the yield curve are applied to each expected future benefit payment.

For the Swiss plan, the weighted average discount rate for the PBO increased 1.58 percentage points, from 0.56% as of December 31, 2021 to 2.14% as of December 31, 2022, mainly due to an increase in Swiss bond market rates. The average discount rate for the PBO for the international plans increased 2.62 percentage points, from 2.15% as of December 31, 2021 to 4.77% as of December 31, 2022, mainly due to an increase in bond market rates. For the year ended December 31, 2022, a one percentage point decline in the discount rates for the Swiss plan would have resulted in an increase in the PBO of CHF 1,717 million and an increase in pension expense of CHF 135 million, and a one percentage point increase in discount rates would have resulted in a decrease in the PBO of CHF 1,388 million and a decrease in the pension expense of CHF 118 million. A one percentage point decline in discount rates for the international plans as of December 31, 2022 would have resulted in an increase in the PBO of CHF 297 million and a decrease in pension expense of CHF 4 million, and a one percentage point increase in discount rates would have resulted in a decrease in the PBO of CHF 239 million and an increase in the pension expense of CHF 8 million.

Actuarial gains and losses recognized in AOCI are amortized over the average remaining service period of active employees expected to receive benefits under the plan, which, as of December 31, 2022, was approximately 8 years for the Swiss plan and 3 to 20 years for the international plans. For plans where there are very few active members, actuarial gains and losses are amortized over the average remaining life expectancy of the inactive participants. Prior service cost recognized in AOCI are amortized over the remaining service period of the employees affected by the plan amendment. The pre-tax expense associated with the amortization of net actuarial losses and prior service cost for defined benefit pension plans for the years ended December 31, 2022, 2021 and 2020 was CHF 202 million, CHF 249 million and CHF 181 million, respectively. The impact from deviations between our actuarial assumptions and the actual developments of such parameters observed for our pension plans further impacts the amount of net actuarial losses or gains recognized in equity, resulting in a higher or lower amount of amortization expense in periods after 2023.

- Refer to “Note 32 – Pension and other post-retirement benefits” in VI – Consolidated financial statements – Credit Suisse Group for further information.

The Bank

The Bank covers pension requirements for its employees in Switzerland through participation in a defined benefit pension plan sponsored by the Group (Group plan). Various legal entities within the Group participate in the Group plan, which is set up as an independent trust domiciled in Zurich. The Group accounts for the Group plan as a single-employer defined benefit pension plan

and uses the projected unit credit actuarial method to determine the net periodic pension expense, PBO, ABO and the related amounts recognized in the consolidated balance sheets. The funded status of the Group plan is recorded in the consolidated balance sheets. The actuarial gains and losses and prior service costs or credits are recognized in equity as a component of AOCI.

The Bank accounts for the Group plan on a defined contribution basis whereby it only recognizes the amounts required to be contributed to the Group plan during the period as net periodic pension expense and only recognizes a liability for any contributions due and unpaid. No other expense or balance sheet amounts related to the Group plan are recognized by the Bank.

The Bank covers pension requirements for its employees in international locations through participation in various pension plans, which are accounted for as single-employer defined benefit pension plans or defined contribution pension plans.

In 2022 and 2021, the weighted-average expected long-term rate of return used to calculate the expected return on plan assets as a component of the net periodic benefit costs for the international single-employer defined benefit pension plans was 2.01% and 1.79%, respectively. In 2022, if the expected long-term rate of return had been increased/decreased one percentage point, net pension expense would have decreased/increased CHF 34 million.

The discount rate used in determining the benefit obligation is based on high-quality corporate bond rates. The average discount rate for the PBO for the international plans increased 2.62 percentage points, from 2.13% as of December 31, 2021 to 4.75% as of December 31, 2022. A one percentage point decline in the discount rate for the international single-employer plans as of December 31, 2022 would have resulted in an increase in PBO of CHF 296 million and a decrease in pension expense of CHF 4 million, and a one percentage point increase in discount rates would have resulted in a decrease in PBO of CHF 238 million and an increase in pension expense of CHF 8 million.

Actuarial gains and losses recognized in AOCI are amortized over the average remaining service period of active employees expected to receive benefits under the plan. For plans where there are very few active members, actuarial gains and losses are amortized over the average remaining life expectancy of the inactive participants. Prior service cost recognized in AOCI are amortized over the remaining service period of the employees affected by the plan amendment. The pre-tax expense associated with the amortization of recognized net actuarial losses and prior service cost for the years ended December 31, 2022, 2021 and 2020 was CHF 10 million, CHF 15 million and CHF 14 million, respectively.

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104 Critical accounting estimates

III — Treasury, Risk, Balance sheet and Off-balance sheet

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Liquidity and funding management

Our liquidity and funding is driven by business activity levels and the overall operating environment.

Liquidity management

We primarily focus our issuance strategy on offering long-term debt securities at the Group level for funding and capital purposes. We also issue short and medium-term debt securities at the Bank level for funding diversification. Our primary source of liquidity is funding through consolidated entities. Proceeds from issuances are lent to operating subsidiaries and affiliates on both a senior and subordinated basis, as needed; the latter typically to meet going and gone concern capital requirements and the former as desired by management to support business initiatives and liquidity needs.

Our liquidity and funding strategy is approved by the Group's Capital Allocation and Liability Management Committee (Group CALMC) and overseen by the Board of Directors. The implementation and execution of the liquidity and funding strategy is managed by Treasury. The global liquidity group within Treasury centralizes control of liability and collateral management with the aim of optimizing our liquidity sourcing, funding costs and high-quality liquid assets (HQLA) portfolio. Treasury ensures adherence to our funding policy and the global liquidity group is focused on the efficient coordination of the short-term unsecured and secured funding desks. This approach enhances our ability to manage potential liquidity and funding risks and to promptly adjust our liquidity and funding levels to meet stress situations. Our liquidity and funding profile is regularly reported to Group CALMC and the Board of Directors, who define our risk tolerance, including liquidity risk, and set parameters for the balance sheet and funding usage of our businesses. The Board of Directors is responsible for defining our overall risk tolerance in the form of a risk appetite statement.

Our liquidity and funding profile reflects our strategy and risk appetite and is driven by business activity levels and the overall operating environment. We continuously adapt our liquidity and funding profile to reflect changes in our business strategy and regulatory developments. We have been an active participant in regulatory and industry forums to promote best practice standards on quantitative and qualitative liquidity management. Our internal liquidity risk management framework is subject to review and monitoring by the Swiss Financial Market Supervisory Authority FINMA (FINMA), other regulators and rating agencies.

Regulatory framework

BIS liquidity framework

The Basel Committee on Banking Supervision (BCBS) established the Basel framework for liquidity risk measurement, standards and monitoring. The Basel framework includes a liquidity coverage ratio (LCR) and a net stable funding ratio (NSFR). Credit Suisse is subject to the Basel framework, as implemented in Switzerland, as well as Swiss legislation and regulations for systemically important banks.

The LCR addresses liquidity risk over a 30-day period. The LCR aims to ensure that banks have unencumbered HQLA available to meet short-term liquidity needs under a severe stress scenario. The LCR is comprised of two components, the value of HQLA in stressed conditions and the total net cash outflows calculated according to specified scenario parameters. Under the BCBS framework, the minimum required ratio of liquid assets over net cash outflows is 100%.

The NSFR establishes criteria for a minimum amount of stable funding based on the liquidity of a bank's on- and off-balance sheet activities over a one-year horizon. The NSFR is a complementary measure to the LCR and is structured to ensure that illiquid assets are funded with an appropriate amount of stable long-term funds. The NSFR is defined as the ratio of available stable funding over the amount of required stable funding and should always be at least 100%.

Swiss liquidity requirements

The Swiss Federal Council adopted a liquidity ordinance (Liquidity Ordinance) that implements Basel liquidity requirements into Swiss law. Under the Liquidity Ordinance, banks are subject to a minimum LCR requirement of 100% at all times and the associated disclosure requirements.

Since July 1, 2021, under the Liquidity Ordinance, banks are subject to a minimum NSFR requirement of 100% at all times and the associated disclosure requirements. Based on the Liquidity Ordinance, Credit Suisse AG (Bank parent company) is allowed to fulfill the minimum NSFR of 100% by taking into consideration any excess funding of Credit Suisse (Schweiz) AG on a stand-alone basis, and the Bank parent company has an NSFR requirement of at least 80% without taking into consideration any such excess funding. Credit Suisse (Schweiz) AG must always fulfill the NSFR of at least 100% on a stand-alone basis.

- Refer to [credit-suisse.com/regulatorydisclosures](https://www.credit-suisse.com/regulatorydisclosures) for additional information.

Our liquidity principles and our liquidity risk management framework as agreed with FINMA are in line with the Basel liquidity framework.

Regulatory developments

On June 3, 2022, the Swiss Federal Council adopted amendments to the Liquidity Ordinance which are expected to enhance the current liquidity requirements for systemically important banks in Switzerland, such as Credit Suisse. The revision is intended to ensure that systemically important banks in Switzerland hold sufficient liquidity to absorb liquidity shocks and cover their liquidity requirements in the event of restructuring or liquidation. It includes additional liquidity requirements, which consider liquidity risks over a 90-day time horizon that are not covered or not sufficiently covered by the 30-day stress scenario of the LCR. The additional liquidity requirements shall be covered by eligible assets, which include, but are not limited to, available HQLA over and above the LCR requirements and a certain portion of mortgage receivables that are eligible collateral under the SNB emergency liquidity assistance. The amended Liquidity Ordinance came into force on July 1, 2022 and will be applicable on January 1, 2024. The revised Liquidity Ordinance will not require any external disclosure of the revised special liquidity requirements for systemically important banks.

In November 2022, the Swiss Federal Council enacted the revised Federal Act on Banks and Savings Institutions (Bank Law) and the revised Federal Ordinance on Banks and Savings Institutions (Banking Ordinance), as well as certain other ordinances, effective as of January 1, 2023, subject to certain transitional arrangements. The amendments relate to the resolvability and resolution provisions for banks and allow FINMA to impose a specific surcharge to liquidity requirements if FINMA identifies obstacles to estimating the required liquidity for the resolvability and resolution of a Swiss systemically important bank operating internationally and if a bank does not remediate such obstacles within a reasonable timeframe as determined by FINMA. Among other changes, the revised Bank Law aims to strengthen the Swiss deposit insurance program by specifying the requirements to ensure that in the event of insolvency, insured deposits are paid out to the depositors within seven business days, with the requirement subject to implementation no later than January 1, 2028. Under the revised program, among other changes, the jointly guaranteed amount is now determined as 1.6% of all protected deposits. The amendments also require systemically important banks to deposit collateral equal to 50% of the Bank's deposit insurance contribution amount in the form of HQLA securities or Swiss francs with a secure third-party custodian. Banks will need to comply with this collateralization requirement by the end of November 2023. The reduction in HQLA securities or Swiss francs provided as collateral under the Swiss deposit insurance program due to this new requirement will be partially compensated by a reduced outflow factor applied to the Bank's deposit insurance contribution amount.

- Refer to “Capital management” for additional information on changes related to capital requirements.

Liquidity risk management

Our approach to liquidity risk management

Our liquidity and funding policy is designed to ensure that funding is available to meet all obligations in times of stress, whether caused by market events or issues specific to Credit Suisse. To address short-term liquidity stress, we maintain a liquidity pool, as described below, that covers unexpected outflows in the event of severe market and idiosyncratic stress. Our liquidity risk parameters reflect various liquidity stress assumptions. We manage our liquidity profile at a sufficient level such that, in the event we are unable to access unsecured funding, we expect to have sufficient liquidity to sustain operations for a period of time in excess of our minimum limit. This includes potential currency mismatches, which are not deemed to be a major risk but are monitored and subject to limits, particularly in the significant currencies of euro, Japanese yen, pound sterling, Swiss franc and US dollar.

We use the LCR, the NSFR and the internal liquidity barometer to monitor our liquidity position and plan funding. Our internal liquidity barometer is used to manage liquidity to internal targets and as a basis to model both Credit Suisse-specific and market-wide stress scenarios and their impact on liquidity and funding, but also to quantify our internal buffer above regulatory liquidity metrics such as those related to the LCR. Our internal barometer framework supports the management of our funding structure. It allows us to manage the time horizon over which the stressed market value of unencumbered assets (including cash) exceeds the aggregate value of contractual outflows of unsecured liabilities plus a conservative forecast of anticipated contingent commitments. This internal barometer framework enables us to manage liquidity to a desired profile under a Credit Suisse-specific or market-wide stress that permits us to continue business activities for a period of time (also known as a liquidity horizon) without changing business plans. Under this framework, we also have short-term targets based on additional stress scenarios to ensure uninterrupted liquidity for short time frames.

We allocate the majority of the balance sheet usage related to our Treasury-managed HQLA portfolio to the business divisions to allow for a more efficient management of their business activities from an overall Group perspective with respect to LCR and Swiss leverage requirements.

Our overall liquidity management framework allows us to run stress analyses on our balance sheet and off-balance sheet positions, which include, but are not limited to, the following:

- A multiple-notch downgrade in the Bank's long-term debt credit ratings, which would require additional funding as a result of certain contingent off-balance sheet obligations;
- Significant withdrawals from private banking client deposits;
- Potential cash outflows associated with the prime brokerage business;
- Over-collateralization of available secured funding;

- Limited availability of capital markets, certificates of deposit and commercial paper;
- Other money market access will be significantly reduced;
- A reduction in funding value of unencumbered assets;
- The inaccessibility of assets held by subsidiaries due to regulatory, operational and other constraints;
- The possibility of providing non-contractual liquidity support in times of market stress, including purchasing our unsecured debt;
- Monitoring the concentration in sources of wholesale funding and thus encourage funding diversification;
- Monitoring the composition and analysis of the unencumbered assets;
- Restricted availability of foreign currency swap markets; and
- Other scenarios as deemed necessary from time to time.

Governance

Funding, liquidity, capital and our foreign exchange exposures are managed centrally by Treasury. Oversight of these activities is provided by Group CALMC, a committee that includes the chief executive officers (CEOs) of the Group and the divisions, the Chief Financial Officer (CFO), the Chief Risk Officer (CRO) and the Treasurer.

It is Group CALMC's responsibility to review the capital position, balance sheet development, current and prospective funding, interest rate risk and foreign exchange exposure and to define and monitor adherence to internal risk limits. Group CALMC regularly reviews the methodology and assumptions of our liquidity risk management framework and determines the liquidity horizon to be maintained.

All liquidity stress tests are coordinated and overseen by the CRO to ensure a consistent and coordinated approach across all risk disciplines.

Contingency funding planning

In the event of a liquidity crisis, our Contingency Funding Plan provides for specific actions to be taken depending on the nature of the crisis. Our plan is designed to address ever-increasing liquidity and funding stresses and has pre-defined escalation levels aimed at maximizing the likelihood that we can take certain measures to address liquidity or funding shortfalls. In order to identify a deteriorating liquidity situation, we monitor a set of regulatory and economic liquidity metrics while also seeking the views of our subject matter experts as well as Group and entity senior management, who retain at all times the authority to take remedial actions promptly. In all cases, the plan's primary objectives are to strengthen liquidity (immediate), reduce funding needs (medium term) and assess recovery options (longer term).

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Liquidity metrics

Liquidity issues in the fourth quarter of 2022

As previously disclosed, during early fourth quarter of 2022, Credit Suisse began experiencing significantly higher withdrawals of cash deposits as well as non-renewal of maturing time deposits. However, as the quarter progressed, these outflows stabilized to much lower levels but had not yet reversed by year end. While these outflows led us to partially utilize liquidity buffers at the Group and legal entity level, and we fell below certain legal entity-level regulatory requirements, the core requirements of the LCR and the NSFR at the Group level were maintained at all times.

- Refer to "Liquidity issues in the fourth quarter of 2022" in II – Operating and financial review – Credit Suisse – Other Information for further information.

Liquidity pool

Treasury manages a sizeable portfolio of HQLA comprised of cash held at central banks and securities. A portion of the liquidity pool is generated through reverse repurchase agreements with top-rated counterparties. We are mindful of potential credit risk and therefore focus our liquidity holdings strategy on cash held at central banks and highly rated government bonds and on short-term reverse repurchase agreements. These government bonds are eligible as collateral for liquidity facilities with various central banks including the Swiss National Bank (SNB), the US Federal Reserve (Fed), the European Central Bank (ECB) and the Bank of England. Our direct exposure on these bonds is limited to highly liquid, top-rated sovereign entities or fully guaranteed agencies of sovereign entities. The liquidity pool may be used to meet the liquidity requirements of our operating companies. All securities, including those obtained from reverse repurchase agreements, are subject to a stress level haircut in our barometer to reflect the risk that emergency funding may not be available at market value in a stress scenario.

We centrally manage this liquidity pool and hold it at our main operating entities. Holding securities in these entities ensures that we can make liquidity and funding available to local entities in need without delay.

As of December 31, 2022, our liquidity pool managed by Treasury and the global liquidity group had an average HQLA value of CHF 118.5 billion, compared to CHF 229.9 billion as of the end of 2021, reflecting the significant decrease in cash deposits and non-renewal of maturing time deposits during early fourth quarter of 2022. The liquidity pool consisted of CHF 62.3 billion of cash held at major central banks, primarily the SNB, the Fed and the ECB, and CHF 56.2 billion market value of securities issued by governments and government agencies, primarily from the US and the UK.

In addition to the above-mentioned liquidity pool, there is also a portfolio of unencumbered liquid assets managed by the businesses, primarily in the Investment Bank division, in cooperation with the global liquidity group. These assets generally include bonds and liquid equity securities that form part of major indices. In coordination with the businesses and the global liquidity group, Treasury can access these assets to generate liquidity. As of December 31, 2022, this portfolio of assets had a market value of CHF 8.0 billion, consisting of CHF 5.6 billion of bonds

and CHF 2.4 billion of liquid equity securities. Under our internal model, an average stress-level haircut of 7% is applied to these assets. The haircuts applied to this portfolio reflect our assessment of overall market risk at the time of measurement, potential monetization capacity taking into account increased haircuts, market volatility and the quality of the relevant securities. This portfolio decreased 70% from CHF 26.3 billion, as of the end of 2021, mainly reflecting changes in light of our strategy to resize our prime services franchise.

Liquidity pool – Group

end of	2022					2021
	Swiss franc	US dollar	Euro	Other currencies	Total	Total
Liquid assets (CHF million)						
Cash held at central banks	27,917	22,591	8,770	2,986	62,264	143,936
Securities	8,843	30,638	5,473	11,267	56,221	85,975
Liquid assets ¹	36,760	53,229	14,243	14,253	118,485	229,911

¹ Reflects a pre-cancellation view.

Liquidity Coverage Ratio

Our calculation methodology for the LCR is prescribed by the Liquidity Ordinance and the FINMA 2015/2 Circular “Liquidity risks – banks,” as amended (Liquidity Circular), and uses a three-month average that is measured using daily calculations during the quarter. The FINMA calculation of HQLA takes into account a cancellation mechanism (post-cancellation view) and is therefore not directly comparable to the assets presented in the financial statements that could potentially be monetized under a severe stress scenario. The cancellation mechanism effectively excludes the impact of certain secured financing transactions from available HQLA and simultaneously adjusts the level of net cash outflows calculated. Application of the cancellation mechanism adjusts both the numerator and denominator of the LCR calculation, meaning that the impact is mostly neutral on the LCR itself.

Our HQLA measurement methodology excludes potentially eligible HQLA available for use by entities of the Group in certain jurisdictions that may not be readily accessible for use by the Group as a whole. These HQLA eligible amounts may be restricted for reasons such as local regulatory requirements, including large exposure requirements, or other binding

constraints that could limit the transferability to other Group entities in other jurisdictions.

On this basis, the level of our three-month daily average LCR was 144% as of the end of 2022, a decrease from 203% as of the end of 2021, representing an average HQLA of CHF 120.0 billion and average net cash outflows of CHF 83.2 billion.

The decrease in the LCR compared to 2021 reflected a significantly lower level of average HQLA, which was partially offset by a reduction in net cash outflows. The lower level of HQLA reflected a decrease in the amount of cash held with central banks and a decrease in the amount of securities held during the period. The decrease in net cash outflows mainly resulted from a decrease in cash outflows from unsecured wholesale funding, primarily driven by decreases in non-operational deposits and unsecured debt, as well as a decrease in net cash outflows from retail deposits. These decreases in net cash outflows were partially offset by lower net cash inflows associated with secured wholesale funding and secured lending activities, as well as a decrease in cash inflows from fully performing exposures.

- Refer to “Liquidity issues in the fourth quarter of 2022” in II – Operating and financial review – Credit Suisse – Other Information for further information.

Liquidity coverage ratio – Group

end of	2022		2021
	Unweighted value ¹	Weighted value ²	Weighted value ²
High-quality liquid assets (CHF million)			
High-quality liquid assets ³	—	119,954	227,193
Cash outflows			
Retail deposits and deposits from small business customers	118,506	13,444	19,555
Unsecured wholesale funding	153,546	58,000	95,093
Secured wholesale funding	50,915	9,692	29,344
Additional requirements	153,272	33,328	35,640
Other contractual funding obligations	43,945	43,945	85,492
Other contingent funding obligations	194,227	2,303	3,663
Total cash outflows	—	160,712	268,787
Cash inflows			
Secured lending	32,744	12,104	40,049
Inflows from fully performing exposures	48,350	22,101	28,270
Other cash inflows	43,305	43,305	88,312
Total cash inflows	124,399	77,510	156,631
Liquidity coverage ratio			
High-quality liquid assets (CHF million)	—	119,954	227,193
Net cash outflows (CHF million)	—	83,202	112,156
Liquidity coverage ratio (%)	—	144	203

Calculated using a three-month average, which is calculated on a daily basis.

- 1 Calculated as outstanding balances maturing or callable within 30 days.
- 2 Calculated after the application of haircuts for high-quality liquid assets or inflow and outflow rates.
- 3 Consists of cash and eligible securities as prescribed by FINMA and reflects a post-cancellation view.

Net Stable Funding Ratio

Our calculation methodology for the NSFR is prescribed by the Liquidity Ordinance and the Liquidity Circular, including associated disclosure requirements. As of the end of 2022, the level of our NSFR was 117%, a decrease from 127% as of the end of 2021, representing available stable funding (ASF) of CHF 343.2 billion and required stable funding (RSF) of CHF 292.5 billion.

The decrease in the NSFR compared to the end of 2021 reflects a decrease in ASF, partially offset by a decrease in RSF. The decrease in the ASF was mainly attributed to a decrease in our deposits, primarily attributable to significantly higher withdrawals of cash deposits as well as non-renewal of maturing time deposits during early fourth quarter of 2022. The decrease in RSF was mainly attributable to a decrease in our trading inventory (non-HQLA securities), our loans held to maturity portfolio, our derivatives portfolio due to decreases in our net derivatives receivables and our reverse repurchase transactions backed by HQLA and non-HQLA assets, partially offset by increases in our loans held for sale portfolio.

Net stable funding ratio – Group

end of	2022	2021
Net stable funding ratio		
Available stable funding (CHF million)	343,158	436,856
Required stable funding (CHF million)	292,524	342,870
Net stable funding ratio (%)	117	127

Funding management

Treasury is responsible for the development, execution and regular updating of our funding plan. The plan reflects projected business growth, development of the balance sheet, future funding needs and maturity profiles as well as the effects of changing market and regulatory conditions.

The approach to term funding best reflects the sensitivity of both our liabilities and our assets to changes in interest rates. Interest expense on long-term floating-rate debt is monitored and managed relative to certain indices, which historically included inter-bank offered rate (IBOR) benchmarks and is being transitioned to alternative reference rates (ARRs) in place of IBORs. Aligned with regulatory expectations and the USD LIBOR cessation timeline, the Group's IBOR transition program works to coordinate preparations on a firm-wide basis, including Treasury and outstanding debt instruments with a LIBOR-link.

We continually manage the impact of funding spreads through careful management of our liability mix and opportunistic issuance of debt. The effect of funding spreads on interest expense depends on many factors, including market conditions, product type and the absolute level of the indices on which our funding is based.

We diversify our long-term funding sources by issuing structured notes, which are debt securities on which the return is linked to commodities, stocks, indices or currencies or other assets. We generally hedge structured notes with positions in the underlying assets or derivatives.

We also use other collateralized financings, including repurchase agreements and securities lending agreements. The level of our repurchase agreements fluctuates, reflecting market opportunities, client needs for highly liquid collateral, such as US treasuries and agency securities, and the impact of balance sheet and risk-weighted asset limits. In addition, matched book trades, under which securities are purchased under agreements to resell and are simultaneously sold under agreements to repurchase with comparable maturities, earn spreads, are relatively risk free and are generally related to client activity.

Funding sources

We fund our balance sheet primarily through core customer deposits, long-term debt, including structured notes, and shareholders' equity. We monitor the funding sources, including their concentrations against certain limits, according to their counter-party, currency, tenor, geography and maturity, and whether they are secured or unsecured.

Our balance sheet funding structure diagram is aligned with the NSFR framework. Loans, which comprise the largest component of our illiquid assets, are primarily funded by our core customer deposits. We also fund illiquid assets, including real estate, private equity and other long-term investments as well as the haircut for the illiquid portion of securities, with long-term debt and equity, in which we try to maintain a substantial funding buffer.

Our core customer deposits totaled CHF 234 billion as of the end of 2022, a decrease compared to CHF 391 billion as of the end of 2021, primarily attributable to significantly higher withdrawals of cash deposits as well as non-renewal of maturing time deposits during the fourth quarter of 2022. Core customer deposits are from clients with whom we have a broad and long-standing relationship. Core customer deposits exclude certificates of deposits.

Our core customer deposit funding is supplemented by the issuance of long-term debt.

- Refer to the chart “Balance sheet funding structure” and “Balance sheet” in Balance sheet and off-balance sheet for further information.
- Refer to “Liquidity issues in the fourth quarter of 2022” in II – Operating and financial review – Credit Suisse – Other Information for further information.

Balance sheet funding structure

as of December 31, 2022 (CHF billion)



Our balance sheet funding structure diagram was aligned with the NSFR framework.

¹ Reverse repurchase agreements including securities received as collateral.

² Included certificates of deposit (CD), commercial paper (CP) and structured notes up to 1 year.

³ Repurchase agreements including obligation to return securities received as collateral.

Funds transfer pricing

We maintain an internal funds transfer pricing system based on market rates. Our funds transfer pricing system is designed to allocate to our businesses all funding costs in a way that incentivizes their efficient use of funding. Our funds transfer pricing system is an essential tool that allocates to the businesses the short-term and long-term costs of funding their balance sheet usages and off-balance sheet contingencies. The funds transfer pricing framework ensures full funding costs allocation under normal business conditions, but it is of even greater importance in a stressed capital markets environment where raising funds is more challenging and expensive. Under this framework, our businesses are also credited to the extent they provide long-term stable funding.

Contractual maturity of assets and liabilities

The following table provides contractual maturities of the assets and liabilities specified as of the end of 2022. The contractual maturities are an important source of information for liquidity risk management. However, liquidity risk is also managed based on an expected maturity that considers counterparty behavior and in addition takes into account certain off-balance sheet items such as derivatives. Liquidity risk management performs extensive analyses of counterparty behavioral assumptions under various stress scenarios.

- Refer to “Contractual obligations and other commercial commitments” in Balance sheet and off-balance sheet and “Note 34 – Guarantees and commitments” in VI – Consolidated financial statements – Credit Suisse Group for further information on contractual maturities of guarantees and commitments.

Contractual maturity of assets and liabilities

end of 2022	On demand	Less than 1 month	Between 1 to 3 months	Between 3 to 12 months	Between 1 to 5 years	Greater than 5 years	Total
Assets (CHF million)							
Cash and due from banks	67,521	585	348	24	0	0	68,478
Interest-bearing deposits with banks	0	144	140	165	0	6	455
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	14,510	24,812	6,774	9,620	3,081	0	58,797
Securities received as collateral, at fair value	2,978	0	0	0	0	0	2,978
Trading assets, at fair value	65,461	0	0	0	0	0	65,461
Investment securities	0	5	10	5	1,131	568	1,719
Other investments	0	0	0	0	0	5,518	5,518
Net loans	6,947	34,609	30,959	47,749	96,224	47,677	264,165
Goodwill	0	0	0	0	0	2,903	2,903
Other intangible assets	0	0	0	0	0	458	458
Brokerage receivables	13,818	0	0	0	0	0	13,818
Other assets	18,907	1,822	800	4,029	11,516	9,534	46,608
Total assets	190,142	61,977	39,031	61,592	111,952	66,664	531,358
Liabilities							
Due to banks	9,194	993	759	959	0	0	11,905
Customer deposits	167,165	22,522	25,207	15,502	2,620	219	233,235
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	4,530	4,586	4,718	5,784	663	0	20,281
Obligation to return securities received as collateral, at fair value	2,979	0	0	0	0	0	2,979
Trading liabilities, at fair value	18,338	0	0	0	0	0	18,338
Short-term borrowings	0	1,274	3,394	7,746	0	0	12,414
Long-term debt	0	656	2,502	24,996	76,684	52,397	157,235
Brokerage payables	11,442	0	0	0	0	0	11,442
Other liabilities	12,798	1,402	297	487	1,656	1,558	18,198
Total liabilities	226,446	31,433	36,877	55,474	81,623	54,174	486,027

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Structural interest rate management

Structural interest rate risk management optimizes the preservation of earnings stability and net present value across various interest rate scenarios. Exposure to interest rate risk in the banking book arises mainly from loans and deposits (including replicated non-maturing deposits) related to our wealth management businesses. This inherent interest rate risk is aggregated in centrally managed banking books, allowing for the netting of interest rate risk exposures, but leaving the originating business with the responsibility for margin management. The remaining interest rate risk is hedged with interest rate swaps. Interest rate risk exposures from debt funding are usually hedged with interest rate swaps. Furthermore, Treasury manages the interest rate risk of the Group's net shareholders' equity according to the strategy approved by senior management.

Debt issuances and redemptions

Our long-term debt includes senior, senior bail-in and subordinated debt issued in US-registered offerings and medium-term note programs, euro medium-term note programs, stand-alone offerings, structured note programs, covered bond programs, Australian dollar domestic medium-term note programs and a Samurai shelf registration statement in Japan. As a global bank, we have access to multiple markets worldwide and our major funding centers are New York, London, Zurich and Tokyo.

We use a wide range of products and currencies to ensure that our funding is efficient and well diversified across markets and investor types. Substantially all of our unsecured senior debt is issued without financial covenants, such as adverse changes in our credit ratings, cash flows, results of operations or financial ratios, which could trigger an increase in our cost of financing or accelerate the maturity of the debt. Our covered bond funding is in the form of mortgage-backed loans funded by domestic covered bonds issued through Pfandbriefbank Schweizerischer Hypothekarinstitute, one of two institutions established by a 1930 act of the Swiss Parliament to centralize the issuance of covered bonds, or from our own Swiss covered bond program established in June 2019. Historically, issuances of covered bonds were also made through our own international covered bond program.

The following table provides information on long-term debt issuances, maturities and redemptions in 2022, excluding structured notes.

Debt issuances and redemptions

in 2022	Senior	Senior bail-in	Sub-ordinated	Long-term debt
Long-term debt (CHF billion, notional value)				
Issuances	9.4	15.7	1.5	26.6
of which unsecured	6.4	15.7	1.5	23.6
of which secured	3.0	0.0	0.0	3.0
Maturities / Redemptions	(8.7)	(8.4)	(1.4)	(18.5)
of which unsecured	(7.9)	(8.4)	(1.4)	(17.7)
of which secured	(0.8)	0.0	0.0	(0.8)

Excludes structured notes.

As of the end of 2022, we had outstanding long-term debt of CHF 157.2 billion, which included senior and subordinated instruments. We had CHF 38.9 billion and CHF 17.6 billion of structured notes and covered bonds outstanding, respectively, as of the end of 2022, compared to CHF 43.1 billion and CHF 15.4 billion, respectively, as of the end of 2021.

- Refer to “Issuances and redemptions” in Capital management – Capital instruments for further information on capital issuances, including buffer and progressive capital instruments.

Short-term borrowings as shown in the balance sheet funding structure diagram decreased 43% to CHF 23.2 billion as of the end of 2022 from CHF 39.8 billion as of the end of 2021, mainly related to maturities of certificates of deposit and structured notes.

We expect the Group's overall funding needs to reduce over time as a result of strategic transformation in line with balance sheet reduction.

- Refer to “Issuances and redemptions” in Capital management – Capital instruments for further information on capital issuances, including low-trigger and high-trigger capital instruments.

Credit ratings

Our access to the debt capital markets and our borrowing costs depend significantly on our credit ratings. Rating agencies take many factors into consideration in determining a company's rating, including, among others, earnings performance, business mix, market position, ownership, financial strategy, level of capital, risk management policies and practices, management team and the broader outlook for the financial services industry more generally. The rating agencies may raise, lower or withdraw their ratings, or publicly announce an intention to raise or lower their ratings, at any time.

Although retail and private bank deposits are also sensitive to changes in a bank's credit ratings, the cost and availability of other sources of unsecured external funding is generally a direct function of credit ratings. Credit ratings are especially important to us when competing in certain markets and when seeking to engage in longer-term transactions, including over-the-counter (OTC) derivative instruments.

Credit ratings downgrades in 2022

In May 2022, Standard and Poor's Global Ratings downgraded the long-term issuer credit ratings of Credit Suisse Group AG and Credit Suisse AG, and Fitch Ratings downgraded the long-term issuer default ratings of Credit Suisse Group AG and Credit Suisse AG, in each case by one notch. The outlook on these ratings was revised from “negative” to “stable”. Also in May 2022, Moody's Investors Service affirmed the senior unsecured debt ratings of Credit Suisse Group AG and the long-term senior unsecured debt and deposit ratings of Credit Suisse AG, but the outlook on these ratings was revised from “stable” to “negative”.

In August 2022, Moody's Investors Service downgraded the senior unsecured debt ratings of Credit Suisse Group AG and the long-term senior unsecured debt and deposit ratings of Credit Suisse AG, both by one notch. The "negative" outlook on these ratings was maintained. Standard and Poor's Global Ratings affirmed the long-term issuer credit ratings of Credit Suisse Group AG and Credit Suisse AG, but the outlook on these ratings was revised from "stable" to "negative". Fitch Ratings downgraded the long-term issuer default ratings of Credit Suisse Group AG and the long- and short-term issuer default ratings of Credit Suisse AG, in each case by one notch. The outlook on these ratings was revised from "stable" to "negative".

On November 1, 2022, Moody's Investors Service affirmed the senior unsecured debt ratings of Credit Suisse Group AG and downgraded the long-term senior unsecured debt and deposit ratings of Credit Suisse AG by one notch. Moody's also downgraded all the short-term ratings by one notch and maintained the "negative" outlook on all ratings. Following the affirmation of all ratings and outlooks on October 6, 2022, Standard and Poor's Global Ratings downgraded the long-term issuer credit ratings of Credit Suisse Group AG and the long- and short-term issuer credit ratings of Credit Suisse AG, in each case by one notch on November 1, 2022. The outlook on these ratings was revised from "negative" to "stable".

These downgrades in our ratings increasingly elevated our borrowing costs and limited our ability to renew maturing short-term funding and to access short-term funding markets. The downgrades have increased our cost of capital and adversely affected and may in the future continue to adversely affect the ability of our businesses to sell or market their products, engage in business transactions, particularly financing and derivative transactions, and retain our clients.

Further downgrades could amplify these challenges, require us to post additional collateral or allow counterparties to terminate transactions under certain of our financing and derivative contracts, and this in turn, could reduce our liquidity and negatively impact our operating results and financial position.

Collateral requirements

Our internal liquidity barometer takes into consideration contingent events associated with a three-notch downgrade in our credit ratings. According to the specific downgrade risks considered in our internal liquidity barometer and LCR calculations, the maximum impact of a simultaneous one, two or three-notch downgrade by all three major rating agencies in the Bank's long-term debt ratings would result in additional collateral requirements or assumed termination payments under certain derivative instruments of CHF 0.6 billion, CHF 0.8 billion and CHF 0.9 billion, respectively, as of the end of 2022. If the downgrade does not involve all three rating agencies, the impact may be smaller.

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Potential cash outflows on these derivative contracts associated with a downgrade of our long-term debt credit ratings, such as the requirement to post additional collateral to the counterparty, the loss of re-hypothecation rights on any collateral received and impacts arising from additional termination events, are monitored and taken into account in the calculation of our liquidity requirements. There are additional derivative related risks that do not relate to the downgrade of our long-term debt credit ratings and which may impact our liquidity position, including risks relating to holdings of derivatives collateral or potential movements in the valuation of derivatives positions. The potential outflows resulting across all derivative product types are monitored as part of the LCR scenario parameters and the internal liquidity reporting.

- Refer to "Investor information" in the Appendix for further information on Group and Bank credit ratings.

Cash flows from operating, investing and financing activities

As a global financial institution, our cash flows are complex and interrelated and bear little relation to our net earnings and net assets. Consequently, we believe that traditional cash flow analysis is less meaningful in evaluating our liquidity position than the liquidity and funding policies described above. Cash flow analysis may, however, be helpful in highlighting certain macro trends in our business.

For the year ended December 31, 2022, net cash provided by **operating activities** of continuing operations was CHF 13.8 billion, primarily reflecting an increase in net trading assets and liabilities, partially offset by valuation adjustments relating to long-term debt and a decrease in other liabilities. Our operating assets and liabilities vary significantly in the normal course of business due to the amount and timing of cash flows. Management believes cash flows from operations, available cash balances and short-term and long-term borrowings will be sufficient to fund our operating liquidity needs.

Our **investing activities** primarily include originating loans to be held to maturity, other receivables and the investment securities portfolio. For the year ended December 31, 2022, net cash provided by investing activities from continuing operations was CHF 55.5 billion, primarily impacted by a decrease in central bank funds sold, by a decrease in loans and by the proceeds from sales of loans.

Our **financing activities** primarily include the issuance of debt and receipt of customer deposits. We pay annual dividends on our common shares. In 2022, net cash used in financing activities of continuing operations was CHF 163.9 billion, mainly reflecting the decrease in due to banks and customer deposits and the repayment of long-term debt, partially offset by the issuance of long-term debt and the issuance of common shares.

Capital management

As of the end of 2022, our BIS CET1 ratio was 14.1%, our BIS CET1 leverage ratio was 5.4% and our BIS tier 1 leverage ratio was 7.7%.

Capital strategy

Credit Suisse considers a strong and efficient capital position to be a priority. Through our capital strategy, our goal is to strengthen our capital position and optimize the use of risk-weighted assets (RWA), particularly in light of emerging regulatory capital requirements.

The overall capital needs of Credit Suisse reflect management's regulatory and credit rating objectives as well as our underlying risks. Our framework considers the capital needed to absorb losses, both realized and unrealized, while remaining a strongly capitalized institution. Multi-year projections and capital plans are prepared for the Group and its major subsidiaries and reviewed throughout the year with their regulators. These plans are subject to various stress tests, reflecting both macroeconomic and specific risk scenarios. Capital contingency plans are developed in connection with these stress tests to ensure that possible mitigating actions are consistent with both the amount of capital at risk and the market conditions for accessing additional capital.

Regulatory framework

Credit Suisse is subject to the Basel framework, as implemented in Switzerland, as well as Swiss legislation and regulations for systemically important banks, which include capital, liquidity, leverage and large exposure requirements and rules for emergency plans designed to maintain systemically relevant functions in the event of threatened insolvency.

The Basel framework describes a range of options for determining capital requirements in order to provide banks and supervisors the ability to select approaches that are most appropriate for their operations and their financial market infrastructure. In general, Credit Suisse has adopted the most advanced approaches, which align with the way that risk is internally managed and provide the greatest risk sensitivity.

Our capital metrics fluctuate during any reporting period in the ordinary course of business.

BIS requirements

The BCBS, the standard setting committee within the Bank for International Settlements (BIS), issued the Basel framework, with minimum capital requirements and conservation and countercyclical buffers, risk-based capital measures, a leverage ratio and liquidity standards. The framework was designed to strengthen the resilience of the banking sector and requires banks to hold adequate capital, mainly in the form of common equity.

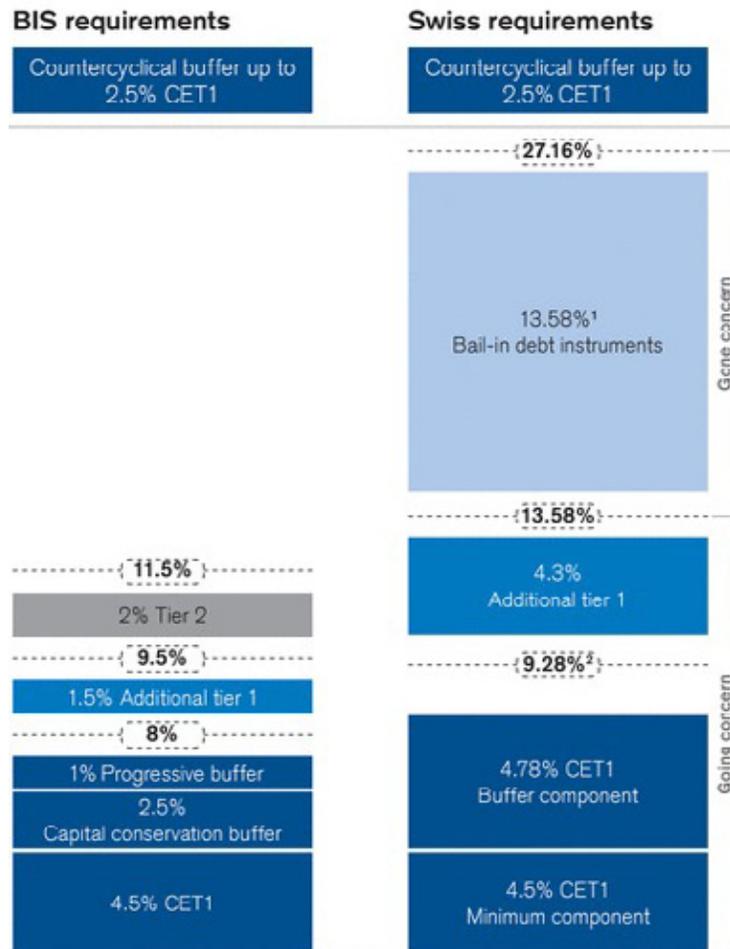
Under the Basel framework, the minimum common equity tier 1 (CET1) requirement is 4.5% of RWA. In addition, a 2.5% CET1 capital conservation buffer is required to absorb losses in periods of financial and economic stress.

A progressive buffer between 1% and 2.5% (with a possible additional 1% surcharge) of CET1, depending on a bank's systemic importance, is an additional capital requirement for global systemically important banks (G-SIBs). The Financial Stability Board (FSB) identified Credit Suisse as a G-SIB. A progressive buffer of 1% applied to Credit Suisse in 2022 and will remain unchanged for 2023.

CET1 capital is subject to certain regulatory deductions and other adjustments to common equity, including the deduction of deferred tax assets for tax-loss carry-forwards, goodwill and other intangible assets.

In addition to the CET1 requirements, there is also a requirement for 1.5% of additional tier 1 capital and 2% of tier 2 capital. These requirements may also be met with CET1 capital. To qualify as additional tier 1 under the Basel framework, capital instruments must provide for principal loss absorption through a conversion into common equity or a write-down of principal feature. The trigger for such conversion or write-down must include a CET1 ratio of at least 5.125% as well as a trigger at the point of non-viability.

Capital frameworks for Credit Suisse



Reflects the updated capital and leverage requirements, effective September 30, 2022, resulting from the assessment of surcharges.

¹ Does not include any rebates for resolvability.

² Does not include the FINMA Pillar 2 capital add-on relating to the supply chain finance funds matter.

The Basel framework further provides for a countercyclical buffer that could require banks to hold up to 2.5% of CET1. This requirement is imposed by national regulators where credit growth is deemed to be excessive and leading to the build-up of systemwide risk.

Banks are required to maintain a tier 1 leverage ratio of 3%.

Swiss requirements

The legislation implementing the Basel framework in Switzerland in respect of capital requirements for systemically important banks, including Credit Suisse, goes beyond the Basel minimum standards for systemically important banks.

Under the Capital Adequacy Ordinance, Swiss banks classified as systemically important banks operating internationally, such as Credit Suisse, are subject to two different minimum requirements for loss-absorbing capacity: such banks must hold sufficient

capital that absorbs losses to ensure continuity of service (going concern requirement), and they must issue sufficient debt instruments to fund an orderly resolution without recourse to public resources (gone concern requirement).

Going concern capital and gone concern capital together form our total loss-absorbing capacity (TLAC). The going concern and gone concern requirements are generally aligned with the FSB's total loss-absorbing capacity standard.

Under the Capital Adequacy Ordinance's grandfathering provisions, additional tier 1 capital instruments with a low trigger qualify as going concern capital until their first call date.

Additionally, there are FINMA decrees that apply to Credit Suisse, as a systemically important bank operating internationally, including capital adequacy requirements as well as liquidity and risk diversification requirements.

Banks that do not maintain the minimum requirements may be limited in their ability to pay dividends and make discretionary bonus payments and other earnings distributions.

Going concern requirements

The going concern requirement for a G-SIB consists of (i) base requirements of 12.86% of RWA and 4.5% of leverage exposure; and (ii) add-ons for market share in the domestic lending and deposit business and for the size of the bank as measured by total exposures (surcharges), which reflect the G-SIB's systemic importance. Currently, for Credit Suisse, the going concern surcharge is 0.72% for the RWA ratio and 0.25% for the leverage ratio. For Credit Suisse, this translates into a going concern requirement before any counter-cyclical buffers of 13.58% of RWA and 4.75% of leverage exposure. The going concern requirement for Credit Suisse shall be met with minimum CET1 capital of 9.28% for the RWA ratio and 3.25% for the leverage ratio, with the remainder to be met with a maximum of 4.3% additional tier 1 capital for the RWA ratio and 1.5% for the leverage ratio. The additional tier 1 capital includes high-trigger capital instruments that would be converted into common equity or written down if the CET1 ratio falls below 7%. Additionally, the going concern requirement may include countercyclical capital buffers, which are applicable to all banks.

Gone concern requirements

In 2022, the gone concern requirement of a G-SIB was equal to its total going concern requirement. The gone concern requirement does not include any countercyclical buffers. As of December 31, 2022, Credit Suisse was subject to a gone concern requirement of 13.58% of RWA and a 4.75% of leverage exposure, less any capital rebates for resolvability.

- Refer to "Regulatory developments" for additional information.

The gone concern requirement should primarily be fulfilled with bail-in instruments that are designed to absorb losses after the write-down or conversion into equity of regulatory capital of a G-SIB in a restructuring scenario, but before the write-down or conversion into equity of other senior obligations of the G-SIB. Bail-in instruments do not feature capital triggers that may lead to a write-down and/or a conversion into equity outside of restructuring, but only begin to bear losses once the G-SIB is formally in restructuring proceedings and FINMA orders capital measures (i.e., a write-down and/or a conversion into equity) in the restructuring plan.

Bail-in instruments must fulfill certain criteria in order to qualify under the gone concern requirement, including FINMA approval. In addition to bail-in instruments, the gone concern requirement may further be fulfilled with other capital instruments, including CET1, additional tier 1 capital instruments or tier 2 capital instruments.

FINMA decrees

The SNB designated Credit Suisse as a financial group of systemic importance under applicable Swiss law. FINMA requires the Group to fully comply with the special requirements for systemically important banks operating internationally, which include capital adequacy requirements and also specify liquidity and risk diversification requirements.

In December 2013, FINMA issued a decree (2013 FINMA Decree), specifying capital adequacy requirements for the Bank on a stand-alone basis (Bank parent company), and for the Bank and the Group, each on a consolidated basis, as systemically important banks.

In October 2017, FINMA issued an additional decree with respect to the regulatory capital requirements of the Bank parent company (2017 FINMA Decree), specifying the treatment of investments in subsidiaries for capital adequacy purposes. This decree partially replaced certain aspects of the 2013 FINMA Decree, but all other aspects of that decree remain in force. The changes aim to create a capital adequacy framework for the Bank parent company that is more comparable to relevant international frameworks and does not rely on exemptions from, or corrections of, the basic framework applicable to all Swiss banks. The changes only apply to the going concern capital requirements for the Bank parent company.

The 2017 FINMA Decree requires the Bank parent company to risk-weight both direct and indirect investments in subsidiaries, with the initial risk-weight set at 200%. Beginning in 2019, the risk-weights began to increase over a 10-year period for direct and indirect investments in Swiss subsidiaries by 5% per year and for direct and indirect investments in foreign subsidiaries by 20% per year, up to 250% and 400%, respectively, by 2028. In 2022, investments in Swiss-domiciled subsidiaries were risk-weighted at 220% and investments in foreign-domiciled subsidiaries were risk-weighted at 280%.

The 2017 FINMA Decree also applies an adjustment (referred to as a regulatory filter) to an impact on CET1 capital arising from the accounting change under applicable Swiss banking rules for the Bank parent company's participations in subsidiaries from the portfolio valuation method to the individual valuation method. In contrast to the accounting treatment, the regulatory filter allows Credit Suisse to measure the regulatory capital position as if the Bank parent company had maintained the portfolio valuation method.

The valuation of the Bank parent company's participations in subsidiaries is reviewed for potential impairment on at least an annual basis as of December 31 and at any other time that events or circumstances indicate that the participations' value may be impaired. There were several triggering events during 2022, including the comprehensive strategic review announced on October 27, 2022, adverse market and economic conditions, a decline in the Group's share price and significant outflows of deposits and assets under management in the fourth quarter of 2022. Additionally, the review of the Credit Suisse legal entities' five-year financial plans was conducted in the fourth quarter of 2022. Based on the reviews performed during the year, which included the support of an independent valuation specialist appointed by Credit Suisse to advise on the valuation of certain participations, the Bank parent company recorded a net participation impairment for regulatory purposes of CHF 7.4 billion in 2022.

The Bank parent company's Swiss CET1 ratio increased to 12.2% as of December 31, 2022 from 11.7% as of December 31, 2021, primarily reflecting significantly reduced RWA levels. The Swiss CET1 ratio was also impacted by net losses and significant participation impairments, partially offset by capital contributions from Credit Suisse Group AG relating to the capital increases executed in the fourth quarter of 2022.

- Refer to [credit-suisse.com/regulatorydisclosures](https://www.credit-suisse.com/regulatorydisclosures) for the Bank parent company's regulatory disclosures.

Swiss capital and leverage requirements for Credit Suisse

As of the end of 2022	Capital ratio	Leverage ratio
Capital components (%)		
CET1 – minimum	4.5	1.5
Additional tier 1 – maximum	3.5	1.5
Minimum component	8.0	3.0
CET1 – minimum	4.78	1.75
Additional tier 1 – maximum	0.8	0.0
Buffer component	5.58	1.75
Going concern	13.58	4.75
of which base requirement	12.86	4.5
of which surcharge	0.72	0.25
Gone concern	13.58	4.75
of which base requirement	12.86	4.5
of which surcharge	0.72	0.25
Total loss-absorbing capacity	27.16	9.5

Reflects the updated capital and leverage requirements resulting from the assessment of surcharges.

Does not include the FINMA Pillar 2 capital add-on of CHF 1.9 billion relating to the supply chain finance funds matter, the effects of the countercyclical buffers and any rebate for resolvability.

As of the end of 2022, for the Group and the Bank, the rebate for resolvability for the capital ratios was 3.113%. For the Group and the Bank, the rebate for resolvability for leverage ratios was 1.0%. Net of these rebates, the gone concern ratios for capital and leverage for the Group and the Bank were 10.468% and 3.75%, respectively.

Other requirements

Requirements in Switzerland include an extended countercyclical buffer, which is based on the BIS countercyclical buffer that could require banks to hold up to 2.5% of RWA in the form of CET1 capital. The extended countercyclical buffer relates to a requirement that can be imposed by national regulators when credit growth is deemed to be excessive and leading to the build-up of system-wide risk. The Swiss Federal Council has not activated the BIS extended countercyclical buffer for Switzerland.

However, the Swiss Federal Council may from time to time require banks to hold additional CET1 capital for certain credit exposures (Swiss countercyclical capital buffer). Currently, banks, such as Credit Suisse, are required to hold additional CET1 capital amounting to 2.5% of RWA pertaining to mortgage loans that are directly or indirectly secured by residential real estate in Switzerland (Swiss sectoral countercyclical capital buffer).

- Refer to “Regulatory developments” for additional information.

FINMA requirements include capital charges for mortgages that finance owner-occupied residential property in Switzerland (mortgage multiplier). The mortgage multiplier applies for purposes of both BIS and FINMA requirements.

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Other regulatory disclosures

In connection with the Basel framework, certain regulatory disclosures for the Group and certain of its subsidiaries are required. The Group’s Pillar 3 disclosure, regulatory disclosures, additional information on capital instruments, including the main features and terms and conditions of regulatory capital instruments and total loss-absorbing capacity-eligible instruments that form part of the eligible capital base and total loss-absorbing capacity resources, G-SIB financial indicators, reconciliation requirements, leverage ratios and certain liquidity disclosures as well as regulatory disclosures for subsidiaries can be found on our website.

- Refer to [credit-suisse.com/regulatorydisclosures](https://www.credit-suisse.com/regulatorydisclosures) for additional information.

Regulatory developments

In January 2022 and at the request of the Swiss National Bank, the Swiss Federal Council reactivated the Swiss sectoral countercyclical capital buffer, in light of the recent developments in the Swiss real estate and mortgage markets. Effective September 30, 2022, banks, such as Credit Suisse, are required to hold additional CET1 capital amounting to 2.5% of RWA pertaining to mortgage loans that are directly or indirectly secured by residential real estate in Switzerland. The Swiss sectoral countercyclical capital buffer serves to strengthen the banking sector’s resilience in the event of increased vulnerabilities in the Swiss mortgage and residential real estate markets.

In March 2022, FINMA published the results of its annual assessment of the recovery and resolution planning of the Swiss systemically important financial institutions. In accordance with this assessment, effective July 1, 2022, the Group was eligible for the maximum potential rebates for resolvability relating to the gone concern requirement.

In July 2022, FINMA communicated the results of its annual assessment of surcharges for the Group’s market share in Switzerland. In accordance with this assessment, effective June 30, 2022, the Group’s surcharge relating to the RWA ratio decreased from 0.72% to 0.36% and the surcharge relating to the leverage ratio decreased from 0.25% to 0.125%.

In October 2022, FINMA communicated the results of its reassessment of the Group’s surcharges requirement based on leverage exposure. In accordance with this reassessment, effective September 30, 2022, the Group’s surcharge relating to the RWA ratio decreased from 0.72% to 0.36% and the surcharge relating to the leverage ratio decreased from 0.25% to 0.125%. The changes in surcharge requirements for the Group’s market share and leverage exposure resulted in a revised going concern (before any countercyclical buffer) and gone concern requirement of 13.58%, in each case, for the RWA ratio and 4.75%, in each case, for the leverage ratio, excluding rebates for resolvability under the gone concern requirement.

In November 2022, the Swiss Federal Council enacted the revised Bank Law and the revised Banking Ordinance, as well as certain other revised ordinances, effective as of January 1, 2023. Among other things, the revision includes certain amendments to the Banking Ordinance and the Capital Adequacy Ordinance under which the current rebate system on certain capital requirements is replaced by an incentive system. As of January 1, 2023, in accordance with the revised Capital Adequacy Ordinance, the former rebates for resolvability are not applicable and the gone concern capital requirements for the Group and the Bank are reduced from 100% to 75% of the going concern capital requirements, including applicable surcharge requirements for the Group's market share and leverage exposure, subject to a floor of 10% for the RWA ratio and 3.75% for the leverage ratio. This results in a gone concern requirement of 10.185% for the RWA ratio and 3.75% for the leverage ratio. Going forward, FINMA will have the ability to impose additional requirements if resolvability criteria are not met. Systemically important banks operating internationally must submit the documentation on the measures prepared or implemented to meet the resolvability criteria for the first time by the end of June 2024. Accordingly, higher gone concern requirements could be imposed by FINMA after such submission.

Capital instruments

Capital increase

On November 23, 2022, the Group held an Extraordinary General Meeting, at which shareholders approved two capital increases. The Group completed the first capital increase on November 25, 2022 by way of a share placement of 462,041,884 newly issued shares to qualified investors resulting in gross proceeds of CHF 1.76 billion. The Group completed the second capital increase by way of a rights offering on December 9, 2022. By the end of the rights exercise period, 98.2% of the rights had been exercised for the issuance of 872,989,594 new shares. The remaining 16,378,864 newly issued shares for which rights were not exercised were sold in the market. The rights offering resulted in gross proceeds for the Group of CHF 2.25 billion. The capital increases resulted in 1,351,410,342 newly issued shares and gross proceeds for the Group of CHF 4.0 billion. Credit Suisse Group AG made capital contributions of CHF 3.89 billion to its wholly owned subsidiary Credit Suisse AG.

Contingent capital instruments

We have issued high-trigger and low-trigger capital instruments to meet our capital requirements. The principal amount of these trigger instruments is written down to zero upon the occurrence of certain specified triggering events. These events include our CET1 ratio falling below 7% (or any lower applicable minimum

threshold), or a determination by FINMA that write-down is necessary, or that we require public sector capital support, to prevent us from becoming insolvent, bankrupt or unable to pay a material amount of our debts, or other similar circumstances. Write-down can only be prevented if FINMA, at our request, is satisfied that certain conditions exist and write-down is not required. High-trigger instruments are designed to absorb losses before our other capital instruments, including the low-trigger capital instruments. The features of low-trigger capital instruments are described below.

Higher Trigger Capital Amount

The capital ratio write-down triggers for certain of our outstanding capital instruments take into account the fact that other outstanding capital instruments that contain relatively higher capital ratios as part of their trigger feature are expected to convert into equity or be written down prior to the write-down of such capital instruments. The amount of additional capital that is expected to be contributed by such conversion into equity or write-down is referred to as the Higher Trigger Capital Amount.

The following tier 1 capital notes (collectively, Tier 1 Capital Notes), which have a trigger amount of 5.125% and qualify as low trigger capital instruments, were outstanding as of December 31, 2022:

- USD 2.5 billion 6.25% tier 1 capital notes; and
- USD 2.25 billion 7.5% tier 1 capital notes.

The following tier 2 capital notes (collectively, Tier 2 Capital Notes), which have a trigger amount of 5% and qualify as low trigger capital instruments, were outstanding as of December 31, 2022:

- USD 2.5 billion 6.5% tier 2 capital notes.

Each of the series of Tier 1 Capital Notes and Tier 2 Capital Notes qualify as low-trigger capital instruments and have a write-down feature, which means that the full principal amount of the notes will be permanently written down to zero upon the occurrence of specified triggering events. These events occur when the amount of our CET1 ratio, together with an additional ratio described below that takes into account other outstanding capital instruments, falls below 5.125% for the Tier 1 Capital Notes and 5% for the Tier 2 Capital Notes. The write-down can only be prevented if FINMA, at our request, is satisfied that certain conditions exist and determines a write-down is not required. The capital notes will also be written down upon a non-viability event, which occurs when FINMA determines that a write-down is necessary, or that we require extraordinary public sector capital support, to prevent us from becoming insolvent, bankrupt or unable to pay a material amount of our debts, or other similar circumstances.

With respect to the capital instruments that specify a trigger event if the CET1 ratio were to fall below 5.125%, the Higher Trigger Capital Amount was CHF 10.5 billion and the Higher Trigger Capital Ratio (i.e., the ratio of the Higher Trigger Capital Amount to the aggregate of all RWA of the Group) was 4.2%, both as of the end of 2022.

With respect to the capital instruments that specify a trigger event if the CET1 ratio were to fall below 5%, the Higher Trigger Capital Amount was CHF 14.7 billion and the Higher Trigger Capital Ratio was 5.9%, both as of the end of 2022.

- Refer to the table “BIS capital metrics – Group” for further information on the BIS metrics used to calculate such measures.

Issuances and redemptions

	Currency	Par value at issuance (million)	Coupon rate (%)	Description	Year of maturity
Issuances – bail-in instruments					
First quarter of 2022	EUR	1,500	2.875	Senior notes	2032
	EUR	2,000	2.125	Senior notes	2026
Second quarter of 2022	JPY	5,000	1.1	Senior notes	2028
Third quarter of 2022	USD	1,500	6.373	Senior notes	2026
	USD	1,750	6.442	Senior notes	2028
	USD	3,000	6.537	Senior notes	2033
	GBP	750	7.0	Senior notes	2027
	GBP	750	7.375	Senior notes	2033
Fourth quarter of 2022	EUR	3,000	7.75	Senior notes	2029
	USD	2,000	9.016	Senior notes	2033
Issuances – capital instruments					
Second quarter of 2022	USD	1,650	9.75	Perpetual contingent capital notes	—
Redemptions – bail-in instruments					
First quarter of 2022	USD	1,750	3.574	Senior notes	2023
	AUD	176	5.0 ¹	Senior notes	2038
Second quarter of 2022	USD	100	floating rate	Senior notes	2023
	EUR	2,250	1.25	Senior notes	2022
	GBP	600	3.0	Senior notes	2022
Third quarter of 2022	USD	2,000	3.8	Senior notes	2022
Fourth quarter of 2022	JPY	38,700	0.553	Senior notes	2023
	USD	500	floating rate	Senior notes	2023
	USD	1,000	2.997	Senior notes	2023
	EUR	180	floating rate	Senior notes	2022
January 2023 to date	AUD	125	3.5	Senior notes	2024 ₂
	AUD	175	floating rate	Senior notes	2024 ₂
	USD	1,050	floating rate	Senior notes	2024 ³
Redemptions – capital instruments					
Third quarter of 2022	USD	1,500	7.125	Perpetual contingent capital notes	—

¹ The interest rate of these zero coupon annual accreting senior callable notes reflected the yield rate of the note.

² On February 13, 2023, the Group elected to call the notes on the optional call date, March 8, 2023.

³ On January 9, 2023, the Group elected to call the notes on the optional call date, March 8, 2023.

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BIS capital metrics

BIS capital metrics – Group

end of	2022	2021	% change
Capital and risk-weighted assets (CHF million)			
CET1 capital	35,290	38,529	(8)
Tier 1 capital	50,026	54,373	(8)
Total eligible capital	50,026	54,852	(9)
Risk-weighted assets	250,540	267,787	(6)
Capital ratios (%)			
CET1 ratio	14.1	14.4	—
Tier 1 ratio	20.0	20.3	—
Total capital ratio	20.0	20.5	—

Eligible capital – Group

end of	2022	2021	% change
Eligible capital (CHF million)			
Total shareholders' equity	45,129	43,954	3
Adjustments			
Regulatory adjustments ¹	(56)	157	—
Goodwill ²	(2,871)	(2,893)	(1)
Other intangible assets ²	(53)	(50)	6
Deferred tax assets that rely on future profitability	(141)	(881)	(84)
Shortfall of provisions to expected losses	(120)	(220)	(45)
Gains/(losses) due to changes in own credit on fair-valued liabilities	(4,056)	2,144	—
Defined benefit pension assets ²	(3,289)	(3,280)	0
Investments in own shares	(409)	(477)	(14)
Other adjustments ³	1,156	75	—
Total adjustments	(9,839)	(5,425)	81
CET1 capital	35,290	38,529	(8)
High-trigger capital instruments (7% trigger)	10,495	11,399	(8)
Low-trigger capital instruments (5.125% trigger)	4,241	4,445	(5)
Additional tier 1 capital	14,736	15,844	(7)
Tier 1 capital	50,026	54,373	(8)
Tier 2 low-trigger capital instruments (5% trigger)	0	479	(100)
Tier 2 capital	0	479 ⁴	(100)
Total eligible capital	50,026	54,852 ⁴	(9)

- 1 Includes certain adjustments, such as a cumulative dividend accrual.
- 2 Net of deferred tax liability.
- 3 Includes reversals of cash flow hedge reserves.
- 4 Amounts are shown on a look-through basis. Certain tier 2 instruments were subject to phase out and are no longer eligible as of January 1, 2022. As of 2021, total eligible capital was CHF 55,074 million, including CHF 222 million of such instruments, and the total capital ratio was 20.6%.

Capital movement – Group

	2022	2021
CET1 capital (CHF million)		
Balance at beginning of period	38,529	35,361
Net income/(loss) attributable to shareholders	(7,293)	(1,650)
Foreign exchange impact ¹	(106)	691
Issuance of common shares	3,886	0
Regulatory adjustment of deferred tax assets relating to net operating losses	802	225
of which valuation allowance ²	1,700	—
of which reclassification of deferred tax assets ³	(441)	—
of which other regulatory adjustments	(457)	—
Regulatory adjustment of goodwill and intangible assets, net of deferred tax liability	29	1,616
Issuance of Mandatory Convertible Notes	0	1,652 ⁴
Impact from the reduction of the investment in Allfunds Group	(71)	862 ⁵
Reversal of unrealized gains on certain equity investments not eligible for CET1 recognition	(87)	432
Dividends	(211)	227
Repurchase of shares under the share buyback program	0	(305)
Other ⁶	(188)	(582)
Balance at end of period	35,290	38,529
Additional tier 1 capital (CHF million)		
Balance at beginning of period	15,844	15,841
Foreign exchange impact	204	543
Issuances	1,602	0
Redemptions	(1,439)	0
Other ⁷	(1,475)	(540)
Balance at end of period	14,736	15,844
Tier 2 capital (CHF million)		
Balance at beginning of period	479	961
Foreign exchange impact	33	36
Other ⁸	(512)	(518)
Balance at end of period	0	479
Eligible capital (CHF million)		
Balance at end of period	50,026	54,852

- 1 Includes US GAAP cumulative translation adjustments and the foreign exchange impact on regulatory CET1 adjustments.
- 2 Reflects the partial reversal of the valuation allowance relating to the reassessment of the deferred tax asset as a result of the comprehensive strategic review.
- 3 Reflects the reclassification of deferred tax assets related to the Group's tax election to accelerate the tax loss recognition of a previously recognized deferred tax asset on timing differences in 2021.
- 4 Reflects the regulatory capital impact of the issuance of Mandatory Convertible Notes, net of fees and expenses.
- 5 Reflects regulatory adjustments relating to the initial public offering of Allfunds Group and the subsequent reduction of our equity investment to below 10%.
- 6 Includes the net effect of share-based compensation and a regulatory adjustment of defined benefit pension plan assets.
- 7 Primarily reflects valuation impacts.
- 8 Includes the impact of the prescribed amortization requirement as instruments move closer to their maturity date.

Our CET1 ratio was 14.1% as of the end of 2022 compared to 14.4% as of the end of 2021. Our tier 1 ratio was 20.0% as of the end of 2022 compared to 20.3% as of the end of 2021. Our total capital ratio was 20.0% as of the end of 2022 compared to 20.5% as of the end of 2021.

CET1 capital of CHF 35.3 billion as of the end of 2022 decreased 8% compared to CHF 38.5 billion as of the end of 2021. The decrease in CET1 capital was mainly due to the net loss attributable to shareholders, which included a valuation allowance of CHF 3,655 million relating to the reassessment of deferred tax assets as a result of the comprehensive strategic review. This decrease was partially offset by the issuance of common shares relating to the capital increases and a regulatory adjustment of deferred tax assets relating to net operating losses of CHF 802 million, which included CHF 1,700 million for the partial reversal of the valuation allowance relating to the reassessment of deferred tax assets as a result of the comprehensive strategy review and a deferred tax assets reclassification of CHF (441) million related to the Group's tax election to accelerate the tax loss recognition of a previously recognized deferred tax asset on timing differences in 2021.

Additional tier 1 capital of CHF 14.7 billion as of the end of 2022 decreased 7% compared to CHF 15.8 billion as of the end of 2021, mainly due to redemptions of high-trigger capital instruments and valuation impacts, partially offset by issuances of high-trigger capital instruments.

Tier 2 capital of CHF 0.0 billion as of the end of 2022 decreased 100% compared to CHF 0.5 billion as of the end of 2021, mainly due to the impact of the prescribed amortization requirement as instruments moved closer to their maturity date.

Total eligible capital of CHF 50.0 billion as of the end of 2022 decreased 9% compared to CHF 54.9 billion as of the end of 2021, mainly reflecting the decreases in CET1 capital and additional tier 1 capital.

Risk-weighted assets

Our balance sheet positions and off-balance sheet exposures translate into RWA, which are categorized as credit, market and operational RWA. When assessing RWA, it is not the nominal size, but rather the nature (including risk mitigation such as collateral or hedges) of the balance sheet positions or off-balance sheet exposures that determines the RWA.

Credit risk RWA reflect the capital requirements for the possibility of a loss being incurred as the result of a borrower or counterparty failing to meet its financial obligations or as a result of a deterioration in the credit quality of the borrower or counterparty. Under the Basel framework, certain regulatory capital adjustments are dependent on the level of CET1 capital (thresholds). The amount above the threshold is deducted from CET1

capital and the amount below the threshold is risk weighted. RWA subject to such threshold adjustments are included in credit risk RWA. For measuring the capital requirements related to credit risk, we use the advanced internal ratings-based (A-IRB) approach. Under the A-IRB approach for measuring credit risk, risk weights are determined by using internal risk parameters for probability of default (PD), loss given default (LGD) and effective maturity. The exposure at default (EAD) is either derived from balance sheet values or by using models. For the capital requirements for counterparty credit risk, we use the internal models method (IMM) for the majority of the derivatives and the value-at-risk (VaR) model for securities financing transactions (SFT). We have also implemented the credit valuation adjustment (CVA), which covers the risk of mark-to-market losses on the expected counterparty risk arising from changes in a counterparty's credit spreads.

Market risk RWA reflect the capital requirements of potential changes in the fair values of financial instruments in response to market movements inherent in both balance sheet and off-balance sheet items. For calculating the capital requirements related to market risk, the internal models and standardized approaches are used. Within the Basel framework for FINMA regulatory capital purposes, we implemented risk measurement models, including an incremental risk charge (IRC), stressed value-at-risk (VaR) and risks not in VaR (RNIV).

The IRC is a regulatory capital charge for default and migration risk on positions in the trading books and is intended to complement additional standards being applied to the VaR modeling framework, including stressed VaR. Stressed VaR replicates a VaR calculation on the Group's current portfolio, taking into account a one-year observation period relating to significant financial stress and helps reduce the pro-cyclicality of the minimum capital requirements for market risk. RNIV and stressed RNIV are risks that are not currently implemented within the Group's VaR model, such as certain basis risks, higher order risks and cross risks.

For capital purposes, FINMA, in line with BIS requirements, uses a multiplier to impose an increase in market risk capital for every regulatory VaR backtesting exception above four in the prior rolling 12-month period. In 2022, our market risk capital multiplier remained at FINMA and BIS minimum levels and we did not experience an increase in market risk capital.

- Refer to "Market risk" in Risk management for further information.

Operational risk RWA reflect the capital requirements for the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. We use the advanced measurement approach (AMA) to calculate the operational risk regulatory capital requirements. The AMA model covers our identified operational risk types and applies a loss distribution approach to calculate the forward-looking potential total annual operational loss.

Risk-weighted assets – Group

as of December 31, 2022 (CHF billion)



¹ Includes primarily trading assets, investment securities and other investments.

² Includes central bank funds sold, securities purchased under resale agreements and central bank funds purchased, securities sold under repurchase agreements and securities lending transactions.

Risk-weighted assets – Group

end of	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Corporate Center	Group
2022 (CHF million)						
Credit risk	35,423	47,005	61,866	6,279	10,442	161,015
Market risk	2,881	10,053	82	52	1,957	15,025
Operational risk	16,245	17,102	7,142	2,002	32,009	74,500
Risk-weighted assets	54,549	74,160	69,090	8,333	44,408	250,540
2021 (CHF million)						
Credit risk	41,061	56,389	61,917	6,395	18,043	183,805
Market risk	2,899	11,524	88	69	1,775	16,355
Operational risk	16,014	16,400	6,759	1,982	26,472	67,627
Risk-weighted assets	59,974	84,313	68,764	8,446	46,290	267,787

Risk-weighted assets movements

RWA decreased 6% to CHF 250.5 billion as of the end of 2022 from CHF 267.8 billion as of the end of 2021, mainly driven by movements in risk levels in credit risk. This decrease was partially offset by increases in internal model and parameter updates in operational and credit risk.

Excluding the foreign exchange impact, the decrease in **credit risk** was primarily driven by movements in risk levels attributable to book size, mainly due to decreases in lending exposures in Wealth Management and the Investment Bank, and the impact of the valuation allowance relating to the reassessment of deferred tax assets as a result of the comprehensive strategic review reflected in the Corporate Center. The movement also included a decrease in derivative exposures and secured financing exposures, mainly in the Investment Bank, including the impact of the substantially completed exit of the prime services franchise and

deleveraging resulting from the significant deposit outflows the Group experiences in the fourth quarter of 2022, and a decrease in our equity exposures relating to the sale of our investment in Allfunds Group reflected in Wealth Management.

Excluding the foreign exchange impact, the decrease in **market risk** was primarily driven by internal model and parameter updates in the Investment Bank, mainly reflecting time series updates as COVID-19 volatility rolled out of the two-year VaR window.

Excluding the foreign exchange impact, the increase in **operational risk** was mainly driven by internal model and parameter updates based on changes made in the AMA model to reflect increased litigation provisions, in addition to the annual recalibration of the model. Allocation to divisions has also changed year-on-year due to annual recalibration of allocation keys performed in the fourth quarter of 2022.

Risk-weighted asset movement by risk type – Group

2022	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Corporate Center	Total
Credit risk (CHF million)						
Balance at beginning of period	41,061	56,389	61,917	6,395	18,043	183,805
Foreign exchange impact	(439)	82	(124)	119	372	10
Movements in risk levels	(6,758)	(9,974)	(2,433)	(235)	(7,778)	(27,178)
of which credit risk – book size ¹	(7,488)	(9,367)	(1,757)	(6)	(8,702)	(27,320)
of which credit risk – book quality ²	730	(607)	(676)	(229)	924	142
Model and parameter updates – internal ³	127	148	1,984	0	(195)	2,064
Model and parameter updates – external ⁴	1,432	360	522	0	0	2,314
Balance at end of period	35,423	47,005	61,866	6,279	10,442	161,015
Market risk (CHF million)						
Balance at beginning of period	2,899	11,524	88	69	1,775	16,355
Foreign exchange impact	47	251	(1)	(12)	29	314
Movements in risk levels	117	(441)	74	(27)	(27)	(304)
Model and parameter updates – internal ³	(182)	(1,281)	(79)	22	180	(1,340)
Balance at end of period	2,881	10,053	82	52	1,957	15,025
Operational risk (CHF million)						
Balance at beginning of period	16,014	16,400	6,759	1,982	26,472	67,627
Foreign exchange impact	204	154	58	25	86	527
Movements in risk levels	174	(174)	0	0	0	0
Model and parameter updates – internal ³	(147)	722	325	(5)	5,451	6,346
Balance at end of period	16,245	17,102	7,142	2,002	32,009	74,500
Total (CHF million)						
Balance at beginning of period	59,974	84,313	68,764	8,446	46,290	267,787
Foreign exchange impact	(188)	487	(67)	132	487	851
Movements in risk levels	(6,467)	(10,589)	(2,359)	(262)	(7,805)	(27,482)
Model and parameter updates – internal ³	(202)	(411)	2,230	17	5,436	7,070
Model and parameter updates – external ⁴	1,432	360	522	0	0	2,314
Balance at end of period	54,549	74,160	69,090	8,333	44,408	250,540

1 Represents changes in portfolio size.

2 Represents changes in average risk weighting across credit risk classes.

3 Represents movements arising from internally driven updates to models and recalibrations of model parameters specific only to Credit Suisse.

4 Represents movements arising from externally mandated updates to models and recalibrations of model parameters specific only to Credit Suisse.

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Leverage metrics

Credit Suisse has adopted the BIS leverage ratio framework, as issued by the BCBS and implemented in Switzerland by FINMA. Under the BIS framework, the leverage ratio measures tier 1 capital against the end-of-period exposure. As used herein, lever age exposure consists of period-end balance sheet assets and prescribed regulatory adjustments, such as derivative financial instruments, securities financing transactions and off-balance sheet exposures.

Leverage exposure – Group

end of	2022	2021
Leverage exposure (CHF million)		
Wealth Management	179,378	233,228
Investment Bank	211,601	347,774
Swiss Bank	220,026	247,509
Asset Management	2,499	2,737
Corporate Center	37,047	57,889
Leverage exposure	650,551	889,137

The leverage exposure of CHF 650.6 billion as of the end of 2022 decreased 27% compared to CHF 889.1 billion as of the end of 2021. The movement was mainly due to a decrease in the consolidated balance sheet. The balance sheet decrease was primarily due to lower HQLA, mainly in the Investment Bank and Wealth Management, reflecting a significant reduction in cash held at central banks and reductions in non-HQLA, both as a result of the deposit outflows the Group experiences in the fourth quarter of 2022. The decrease also reflected certain other business reductions.

- Refer to “Balance sheet and off-balance sheet” for further information on the movement in the Group’s consolidated balance sheet.

Leverage exposure components – Group

end of	2022	2021	% change
Leverage exposure (CHF million)			
Total assets	531,358	755,833	(30)
Adjustments			
Difference in scope of consolidation and tier 1 capital deductions ¹	(8,518)	(9,386)	(9)
Derivative financial instruments	43,642	55,901	(22)
Securities financing transactions	2,402	(8,546)	—
Off-balance sheet exposures	78,811	93,286	(16)
Other	2,856	2,049	39
Total adjustments	119,193	133,304	(11)
Leverage exposure	650,551	889,137	(27)

¹ Includes adjustments for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation and tier 1 capital deductions related to balance sheet assets.

BIS leverage metrics – Group

end of	2022	2021	% change
Capital and leverage exposure (CHF million)			
CET1 capital	35,290	38,529	(8)
Tier 1 capital	50,026	54,373	(8)
Leverage exposure	650,551	889,137	(27)
Leverage ratios (%)			
CET1 leverage ratio	5.4	4.3	—
Tier 1 leverage ratio	7.7	6.1	—

BIS leverage ratios – Group

The CET1 leverage ratio was 5.4% as of the end of 2022, compared to 4.3% as of the end of 2021, reflecting significantly lower leverage exposure and higher CET1 capital. The tier 1 leverage ratio was 7.7% as of the end of 2022, compared to 6.1% as of the end of 2021, mainly reflecting significantly lower leverage exposure.

Swiss metrics

Swiss capital metrics

As of the end of 2022, our Swiss CET1 capital was CHF 35.3 billion and our Swiss CET1 ratio was 14.1%. Our going concern capital was CHF 50.0 billion and our going concern capital ratio was 19.9%. Our gone concern capital was CHF 49.1 billion and our gone concern capital ratio was 19.6%. Our total loss-absorbing capacity was CHF 99.1 billion and our TLAC ratio was 39.5%.

Swiss capital metrics – Group

end of	2022	2021	% change
Swiss capital and risk-weighted assets (CHF million)			
Swiss CET1 capital	35,290	38,529	(8)
Going concern capital	50,026	54,372	(8)
Gone concern capital	49,117	46,648	5
Total loss-absorbing capacity	99,143	101,020	(2)
Swiss risk-weighted assets	250,963	268,418	(7)
Swiss capital ratios (%)			
Swiss CET1 ratio	14.1	14.4	—
Going concern capital ratio	19.9	20.3	—
Gone concern capital ratio	19.6	17.4	—
TLAC ratio	39.5	37.6	—

Rounding differences may occur.

Swiss capital and risk-weighted assets – Group

end of	2022	2021	% change
Swiss capital (CHF million)			
CET1 capital – BIS	35,290	38,529	(8)
Swiss CET1 capital	35,290	38,529	(8)
Additional tier 1 high-trigger capital instruments	10,495	11,398	(8)
Grandfathered additional tier 1 low-trigger capital instruments	4,241	4,445	(5)
Swiss additional tier 1 capital	14,736	15,843	(7)
Going concern capital	50,026	54,372	(8)
Bail-in debt instruments	49,117	44,251	11
Tier 2 low-trigger capital instruments	0	479	(100)
Tier 2 amortization component	0	1,918	(100)
Gone concern capital	49,117	46,648 ¹	5
Total loss-absorbing capacity	99,143	101,020	(2)
Risk-weighted assets (CHF million)			
Risk-weighted assets – BIS	250,540	267,787	(6)
Swiss regulatory adjustments ²	423	631	(33)
Swiss risk-weighted assets	250,963	268,418	(7)

1 Amounts are shown on a look-through basis. Certain tier 2 instruments and their related tier 2 amortization components were subject to phase out and are no longer eligible as of January 1, 2022. As of 2021, gone concern capital was CHF 46,897 million, including CHF 249 million of such instruments.

2 Primarily includes differences in the credit risk multiplier.

Swiss leverage metrics – Group

end of	2022	2021	% change
Swiss capital and leverage exposure (CHF million)			
Swiss CET1 capital	35,290	38,529	(8)
Going concern capital	50,026	54,372	(8)
Gone concern capital	49,117	46,648	5
Total loss-absorbing capacity	99,143	101,020	(2)
Leverage exposure	650,551	889,137	(27)
Swiss leverage ratios (%)			
Swiss CET1 leverage ratio	5.4	4.3	—
Going concern leverage ratio	7.7	6.1	—
Gone concern leverage ratio	7.6	5.2	—
TLAC leverage ratio	15.2	11.4	—

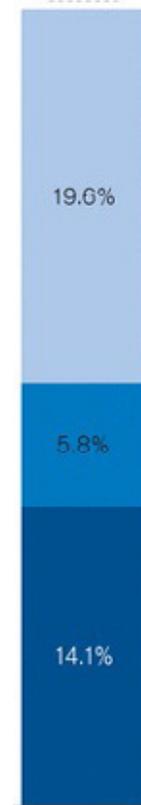
Rounding differences may occur.

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Swiss capital and leverage ratios for Credit Suisse

Capital ratio

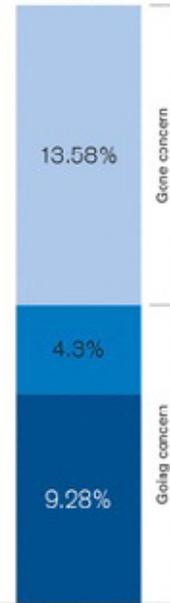
39.5%



End of 2022

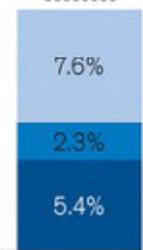
Leverage ratio

27.16%



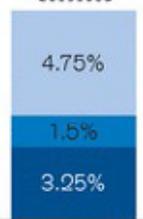
Requirement

15.2%



End of 2022

9.5%



Requirement

■ CET1 ■ Additional tier 1 ■ Bail-in debt and other instruments

Rounding differences may occur. Does not include the FINMA Pillar 2 capital add-on relating to the supply chain finance funds matter, the effects of the countercyclical buffers and any rebates for resolvability.

Swiss leverage metrics

The leverage exposure used in the Swiss leverage ratios is measured on the same period-end basis as the leverage exposure for the BIS leverage ratio. As of the end of 2022, our Swiss CET1 leverage ratio was 5.4%, our going concern leverage ratio was 7.7%, our gone concern leverage ratio was 7.6% and our TLAC leverage ratio was 15.2%.

Bank regulatory disclosures

The following capital, RWA and leverage disclosures apply to the Bank. The business of the Bank is substantially the same as that of the Group, including business drivers and trends relating to capital, RWA and leverage metrics.

- Refer to “BIS capital metrics”, “Risk-weighted assets”, “Leverage metrics” and “Swiss metrics” for further information.

BIS capital metrics – Bank

end of	2022	2021	% change
Capital and risk-weighted assets (CHF million)			
CET1 capital	40,987	44,185	(7)
Tier 1 capital	54,843	59,110	(7)
Total eligible capital	54,843	59,589	(8)
Risk-weighted assets	249,536	266,934	(7)
Capital ratios (%)			
CET1 ratio	16.4	16.6	—
Tier 1 ratio	22.0	22.1	—
Total capital ratio	22.0	22.3	—

The Bank’s CET1 ratio was 16.4% as of the end of 2022 compared to 16.6% as of the end of 2021. The Bank’s tier 1 ratio was 22.0% as of the end of 2022 compared to 22.1% as of the end of 2021. The Bank’s total capital ratio was 22.0% as of the end of 2022 compared to 22.3% as of the end of 2021.

CET1 capital of CHF 41.0 billion as of the end of 2022 decreased 7% compared to CHF 44.2 billion as of the end of 2021. The decrease in CET1 capital was mainly due to the net loss attributable to shareholders, which included a valuation allowance of CHF 3,655 million relating to the reassessment of deferred tax assets as a result of the comprehensive strategic review. These decreases were partially offset by a capital contribution from the Group following the Group’s issuance of common shares.

Additional tier 1 capital of CHF 13.9 billion as of the end of 2022 decreased 7% compared to CHF 14.9 billion as of the end of 2021, mainly due to redemptions of high-trigger capital instruments and valuation impacts, partially offset by issuances of high-trigger capital instruments.

Eligible capital and risk-weighted assets – Bank

end of	2022	2021	% change
Eligible capital (CHF million)			
Total shareholders’ equity	47,871	47,390	1
Regulatory adjustments ¹	(483)	(670)	(28)
Other adjustments ²	(6,401)	(2,535)	153
CET1 capital	40,987	44,185	(7)
Additional tier 1 instruments	13,856 ³	14,925	(7)
Additional tier 1 capital	13,856	14,925	(7)
Tier 1 capital	54,843	59,110	(7)
Tier 2 low-trigger capital instruments (5% trigger)	0	479	(100)
Tier 2 capital	0	479 ⁴	(100)
Total eligible capital	54,843	59,589 ⁴	(8)
Risk-weighted assets by risk type (CHF million)			
Credit risk	160,011	182,952	(13)
Market risk	15,025	16,355	(8)
Operational risk	74,500	67,627	10
Risk-weighted assets	249,536	266,934	(7)

¹ Includes certain adjustments, such as a cumulative dividend accrual.

² Includes certain deductions, such as goodwill, other intangible assets and certain deferred tax assets.

³ Consists of high-trigger and low-trigger capital instruments. Of this amount, CHF 10.5 billion consists of capital instruments with a capital ratio write-down trigger of 7% and CHF 3.4 billion consists of capital instruments with a capital ratio write-down trigger of 5.125%.

⁴ Amounts are shown on a look-through basis. Certain tier 2 instruments were subject to phase out and are no longer eligible as of January 1, 2022. As of 2021, total eligible capital was CHF 59,811 million, including CHF 222 million of such instruments, and the total capital ratio was 22.4%.

Tier 2 capital of CHF 0.0 billion as of the end of 2022 decreased 100% compared to CHF 0.5 billion as of the end of 2021, mainly due to the impact of the prescribed amortization requirement as instruments moved closer to their maturity date.

The Bank’s total eligible capital of CHF 54.8 billion decreased 8% as of the end of 2022 compared to CHF 59.6 billion as of the end of 2021, mainly reflecting the decreases in CET1 capital and additional tier 1 capital.

RWA decreased CHF 17.4 billion to CHF 249.5 billion as of the end of 2022 compared to CHF 266.9 billion as of the end of 2021.

Leverage exposure components – Bank

end of	2022	2021	% change
Leverage exposure (CHF million)			
Total assets	530,039	759,214	(30)
Adjustments			
Difference in scope of consolidation and tier 1 capital deductions ¹	(5,199)	(6,251)	(17)
Derivative financial instruments	44,611	56,058	(20)
Securities financing transactions	2,402	(8,546)	—
Off-balance sheet exposures	78,842	93,286	(15)
Other	2,856	2,049	39
Total adjustments	123,512	136,596	(10)
Leverage exposure	653,551	895,810	(27)

1 Includes adjustments for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation and tier 1 capital deductions related to balance sheet assets.

BIS leverage metrics – Bank

end of	2022	2021	% change
Capital and leverage exposure (CHF million)			
CET1 capital	40,987	44,185	(7)
Tier 1 capital	54,843	59,110	(7)
Leverage exposure	653,551	895,810	(27)
Leverage ratios (%)			
CET1 leverage ratio	6.3	4.9	—
Tier 1 leverage ratio	8.4	6.6	—

Swiss capital metrics – Bank

end of	2022	2021	% change
Swiss capital and risk-weighted assets (CHF million)			
Swiss CET1 capital	40,987	44,185	(7)
Going concern capital	54,843	59,110	(7)
Gone concern capital	42,930	41,316	4
Total loss-absorbing capacity	97,773	100,426	(3)
Swiss risk-weighted assets	249,953	267,558	(7)
Swiss capital ratios (%)			
Swiss CET1 ratio	16.4	16.5	—
Going concern capital ratio	21.9	22.1	—
Gone concern capital ratio	17.2	15.4	—
TLAC ratio	39.1	37.5	—

Rounding differences may occur.

Swiss capital and risk-weighted assets – Bank

end of	2022	2021	% change
Swiss capital (CHF million)			
CET1 capital – BIS	40,987	44,185	(7)
Swiss CET1 capital	40,987	44,185	(7)
Additional tier 1 high-trigger capital instruments	10,495	11,382	(8)
Grandfathered additional tier 1 low-trigger capital instruments	3,361	3,543	(5)
Swiss additional tier 1 capital	13,856	14,925	(7)
Going concern capital	54,843	59,110	(7)
Bail-in debt instruments	42,930	38,920	10
Tier 2 low-trigger capital instruments	0	479	(100)
Tier 2 amortization component	0	1,917	(100)
Gone concern capital	42,930	41,316 ¹	4
Total loss-absorbing capacity	97,773	100,426	(3)
Risk-weighted assets (CHF million)			
Risk-weighted assets – BIS	249,536	266,934	(7)
Swiss regulatory adjustments ²	417	624	(33)
Swiss risk-weighted assets	249,953	267,558	(7)

1 Amounts are shown on a look-through basis. Certain tier 2 instruments and their related tier 2 amortization components were subject to phase out and are no longer eligible as of January 1, 2022. As of 2021, gone concern capital was CHF 41,565 million, including CHF 249 million of such instruments.

2 Primarily includes differences in the credit risk multiplier.

Swiss leverage metrics – Bank

end of	2022	2021	% change
Swiss capital and leverage exposure (CHF million)			
Swiss CET1 capital	40,987	44,185	(7)
Going concern capital	54,843	59,110	(7)
Gone concern capital	42,930	41,316	4
Total loss-absorbing capacity	97,773	100,426	(3)
Leverage exposure	653,551	895,810	(27)
Swiss leverage ratios (%)			
Swiss CET1 leverage ratio	6.3	4.9	—
Going concern leverage ratio	8.4	6.6	—
Gone concern leverage ratio	6.6	4.6	—
TLAC leverage ratio	15.0	11.2	—

Rounding differences may occur.

Shareholders' equity

Group

The Group's total shareholders' equity was CHF 45.1 billion as of the end of 2022 compared to CHF 44.0 billion as of the end of 2021. Total shareholders' equity was positively impacted by gains on fair value elected liabilities relating to credit risk and the CHF 4.0 billion issuance of common shares in connection with the capital increases, offset by the net loss attributable to shareholders and losses on cash flow hedges.

- Refer to the "Consolidated statements of changes in equity" in VI – Consolidated financial statements – Credit Suisse Group for further information on the Group's total shareholders' equity.

Bank

The Bank's total shareholders' equity was CHF 47.9 billion as of the end of 2022 compared to CHF 47.4 billion as of the end of 2021. Total shareholders' equity was positively impacted by gains on fair value elected liabilities and a capital contribution from the Group following the issuance of common shares, offset by a net loss attributable to shareholders and losses on cash flow hedges.

- Refer to the "Consolidated statements of changes in equity" in VIII – Consolidated financial statements – Credit Suisse (Bank) for further information on the Bank's total shareholders' equity.

Shareholders' equity and share metrics

end of	Group			Bank		
	2022	2021	% change	2022	2021	% change
Shareholders' equity (CHF million)						
Common shares	160	106	51	4,400	4,400	0
Additional paid-in capital	38,615	34,938	11	50,879	47,417	7
Retained earnings	23,632	31,064	(24)	7,659	14,932	(49)
Treasury shares, at cost	(428)	(828)	(48)	—	—	—
Accumulated other comprehensive income/(loss)	(16,850)	(21,326)	(21)	(15,067)	(19,359)	(22)
Total shareholders' equity	45,129	43,954	3	47,871	47,390	1
Goodwill	(2,903)	(2,917)	0	(2,868)	(2,881)	0
Other intangible assets	(458)	(276)	66	(452)	(276)	64
Tangible shareholders' equity ¹	41,768	40,761	2	44,551	44,233	1
Shares outstanding (million)						
Common shares issued	4,002.2	2,650.7	51	4,399.7	4,399.7	0
Treasury shares	(60.9)	(81.0)	(25)	—	—	—
Shares outstanding	3,941.3	2,569.7	53	4,399.7	4,399.7	0
Par value (CHF)						
Par value	0.04	0.04	0	1.00	1.00	0
Book value per share (CHF)						
Total book value per share	11.45	17.10	(33)	10.88	10.77	1
Goodwill per share	(0.74)	(1.14)	(35)	(0.65)	(0.65)	0
Other intangible assets per share	(0.11)	(0.10)	10	(0.10)	(0.07)	43
Tangible book value per share ¹	10.60	15.86	(33)	10.13	10.05	1

¹ Management believes that tangible shareholders' equity and tangible book value per share, both non-GAAP financial measures, are meaningful as they are measures used and relied upon by industry analysts and investors to assess valuations and capital adequacy.

Foreign exchange exposure

Foreign exchange risk associated with investments in branches, subsidiaries and affiliates is managed within defined parameters that create a balance between the interests of stability of capital adequacy ratios and the preservation of Swiss franc shareholders' equity. Foreign exchange risk associated with the nonfunctional currency net assets of branches and subsidiaries is managed through a combination of forward-looking and concurrent backward-looking hedging activity, which is aimed at reducing the foreign exchange rate induced volatility of reported earnings.

Share purchases

The Swiss Code of Obligations limits a corporation's ability to hold or repurchase its own shares. We may only repurchase shares if we have sufficient free reserves to pay the purchase price, and if the aggregate nominal value of the repurchased shares does not exceed 10% of our nominal share capital. Furthermore, we must create a special reserve in our parent company's financial statements in the amount of the purchase price of the acquired shares. In our consolidated financial statements, own shares are recorded at cost and reported as treasury shares, resulting in a reduction in total shareholders' equity. Shares repurchased by us do not carry any voting rights at shareholders' meetings.

For 2022, there was no publicly announced share repurchase program in place. We purchased 1,388.1 million treasury shares and sold or re-issued 1,347.7 million treasury shares. The treasury shares were purchased through open market transactions, predominantly for market-making purposes and facilitating customer orders and to meet the Group's delivery obligations with respect to share-based compensation. As of December 31, 2022, the Group held 60.9 million treasury shares.

- Refer to "Note 27 – Accumulated other comprehensive income and additional share information" in VI – Consolidated financial statements – Credit Suisse Group for information on movement in treasury shares.

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Issuer purchases of equity securities

in	Total number of shares purchased (million) ¹	Average price paid per share purchased (CHF)
2022		
January	105.3	8.84
February	122.2	8.33
March	142.0	7.18
April	92.3	6.95
May	111.8	6.63
June	140.2	6.15
July	110.2	5.35
August	97.4	5.22
September	144.5	4.68
October	112.1	4.20
November	88.9	3.59
December	121.2	2.87
Total share purchases	<u>1,388.1</u>	<u>—</u>

- 1** We purchased 1,388.1 million shares in 2022 through open market transactions, predominantly for market-making purposes and facilitating customer orders as well as to meet the Group's delivery obligations with respect to share-based compensation.

Dividends and dividend policy

Under the Swiss Code of Obligations, dividends may be paid out only if and to the extent the corporation has distributable voluntary retained earnings or distributable legal reserves. In addition, for holding companies, legal reserves may be distributed if they exceed, after deduction of any accumulated losses and reserves for own shares held by subsidiaries, 20% of the share capital specified in the commercial register. Furthermore, dividends may be paid out only after shareholder approval. The Board of Directors may propose that a dividend be paid out, but cannot itself set the dividend. In Switzerland, the auditors are required to confirm whether the appropriation of retained earnings is in accordance with Swiss law and the company's articles of incorporation. In practice, the shareholders usually approve the dividend proposal of the Board of Directors. Dividends are usually due and payable after the shareholders' resolution relating to the allocation of profits has been passed. Under the Swiss Code of Obligations, the statute of limitations in respect of claiming the payment of dividends that have been declared is five years.

The dividend payment made in 2022 for the financial year 2021 consisted of a cash distribution of CHF 0.10 per share. 50% of the distribution was paid out of capital contribution reserves, free of Swiss withholding tax and not subject to income tax for Swiss resident individuals holding the shares as a private investment, and 50% was paid out of retained earnings, net of 35% Swiss withholding tax.

Our dividend payment policy seeks to provide investors with an efficient form of capital distribution relative to earnings. Our dividend payment policy is to pay a cash dividend per share, subject to performance and the decision of the Board of Directors and approval of our shareholders in due course.

Our Board of Directors proposes to the shareholders at the Annual General Meeting on April 4, 2023 a cash distribution of CHF 0.05 per share for the financial year 2022, subject to Annual General Meeting approval.

Reflecting our holding company structure, the Group is not an operating company and holds investments in subsidiaries. It is therefore reliant on the dividends of its subsidiaries to pay shareholder dividends and service its long-term debt. The subsidiaries of the Group are generally subject to legal restrictions on the amount of dividends they can pay. The amount of dividends paid by operating subsidiaries is determined after consideration of the expectations for future results and growth of the operating businesses.

- Refer to “Proposed distribution out of capital contribution reserves” in VII – Parent company financial statements – Credit Suisse Group – Proposed appropriation of accumulated losses and capital distribution for further information on dividends.

Dividend per ordinary share

	USD ¹	CHF
Dividend per ordinary share for the financial year		
2021	0.10	0.093266
2020	0.101659	0.10
2019	0.2761	0.2776
2018	0.257126	0.2625
2017	0.249	0.25

¹ Represents the distribution on each American Depositary Share. For further information, refer to [credit-suisse.com/dividend](https://www.credit-suisse.com/dividend).

Risk management

As of the end of 2022, the Group had a gross loan portfolio of CHF 265.6 billion, gross impaired loans of CHF 3.4 billion and, in 2022, an average risk management VaR of USD 49 million.

In 2022, we continued to strengthen our risk management capabilities. These improvements supported the navigation of the macroeconomic/geopolitical turmoil, notably Russia's invasion of Ukraine. We initiated risk appetite adjustments to support the strategic changes of the Group, while continuing to drive our culture transformation.

Our discussion of risk management includes the following main sections:

- **Key risk developments** provides an overview of topics with an actual or potential impact on risk management that have been important for the Group.
- **Risk oversight and governance** provides an overview on oversight, culture and key management bodies and committees covering risk management matters.
- **Risk appetite framework** provides an overview on key aspects and our process of risk appetite setting as well as the types of risk constraints we apply.
- **Risk coverage and management** provides an overview of our main risk types. For each of the risk types presented, we provide our definition of this risk type, sources of this risk, our approach to evaluation and management of this risk and related governance.
- **Risk portfolio analysis** provides quantitative information and discussion of our risk exposure, primarily in relation to credit and market risk.

Key risk developments

We are closely monitoring the following key risk and global economic developments as well as the potential effects on our operations and businesses, including through the reassessment of financial plans and the development of stress scenarios that take into account potential additional negative impacts.

Liquidity risk management

As previously disclosed, during early fourth quarter of 2022, Credit Suisse began experiencing significantly higher withdrawals of cash deposits as well as non-renewal of maturing time deposits. However, as the quarter progressed, these outflows stabilized to much lower levels but had not yet reversed by year end. While these outflows led the bank to partially utilize liquidity buffers at the Group and legal entity level, and we fell below certain legal entity level requirements, at the Group level we always maintained

the core regulatory requirements of the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR). Remediation plans were prepared, initiated and implemented to mitigate these outflows, including accessing the public and private markets.

Russia's invasion of Ukraine

In response to Russia's invasion of Ukraine in late February 2022, the US, EU, UK, Switzerland and other countries across the world imposed severe sanctions against Russia's financial system and on Russian government officials and Russian business leaders. We are continuously assessing the impact of sanctions already imposed, Russian government countermeasures and potential future escalations on our exposures and client relationships.

- Refer to "Other information" in II – Operating and financial review – Credit Suisse for further information.

Inflation concerns and recession risk

In the major economies, annual inflation rates stayed far above central bank target levels for most of 2022 but started to decrease at the end of 2022. In early 2023, energy prices eased and the improved functioning of supply chains reduced the upward pressure on prices of goods. However, price pressures have transitioned to the services sector while low unemployment rates have pushed wages up. The Fed and other major central banks have slowed the pace of monetary policy tightening in late 2022 and early 2023 but have continued to stress that policy interest rates may be further increased. Further significant increases in interest rates carry the risk of triggering a recession. We periodically assess the resilience and potential vulnerabilities in our exposures, should the global economy deteriorate into recession.

Energy supply disruptions

Russia, which is the major source of European energy imports, has significantly reduced or even halted gas flows through various pipelines to Western Europe. High energy costs are expected to squeeze consumer spending for other goods and services and increase costs across global supply chains. Furthermore, gas-intensive European industries such as chemicals and metals face the challenge of having to adjust to permanently higher energy prices. We assessed the potential portfolio implications on eurozone countries and energy-intensive industries. Also, as part of managing operational resilience and business continuity risks, we are assessing a range of energy supply shortage scenarios and have implemented mitigation measures addressing potential operational disruptions that may occur in European countries where Credit Suisse operates.

Emerging markets

The challenges facing emerging market countries increased during 2022 and are expected to persist in 2023. In Türkiye and in some Latin American countries such as Brazil and Peru, downside risks driven by elevated debt levels and political and social instability were further exacerbated by high inflation and US dollar appreciation. China's economic activity was also adversely impacted, mainly driven by its zero COVID-19 policy, the real estate sector's troubles and weaker global demand. However, the recently announced relaxation of China's COVID-19 restrictions is expected to stimulate the country's economic recovery and support global economic growth. We continue to closely monitor and conduct frequent reviews into our emerging markets country exposures.

Cyber risk

The financial industry continues to be increasingly reliant on technology, faces dynamic cyber threats from a variety of actors and new technology vulnerabilities are being discovered. We continue to invest in our information and cybersecurity programs in order to strengthen our ability to anticipate, detect, defend against and recover from cyber attacks. We regularly assess the effectiveness of our key controls and conduct ongoing employee training and awareness activities, including for key management personnel, in order to seek to strengthen resilience of our systems and promote a strong cyber risk culture.

Swiss property market

Property prices remained on an upward trend in 2022 as a result of continued contained supply despite sharp increases in Swiss mortgage rates. As previously reported, the Swiss Federal Council at the request of the SNB reactivated the Swiss countercyclical capital buffer from September 2022. Since September 30, 2022, banks, such as Credit Suisse, are required to hold additional CET1 capital amounting to 2.5% of RWA pertaining to mortgage loans that are directly or indirectly secured by residential real estate in Switzerland. We regularly monitor risks in our Swiss residential mortgage loan portfolio.

Strategy execution

On October 27, 2022, Credit Suisse announced a series of decisive actions following a strategic review conducted by the Board of Directors (Board) and Executive Board, focused on a restructuring of the Investment Bank, an accelerated cost transformation, and strengthened and reallocated capital. The strategic transformation entails significant execution risks that could adversely affect the bank. We strengthened our leadership of Credit Suisse through changes in the Board and enhanced our Executive Board with a team bringing relevant experience and a track record of execution. We are regularly monitoring market conditions as well as our operating processes and controls for heightened risk exposures and applying mitigating actions to minimize disruption to our businesses, clients, employees and operational readiness for the execution of our strategic transformation.

Risk management oversight

Prudent risk-taking in line with the Group's strategic priorities is fundamental to our business and success. The primary objectives of risk management are to protect our financial strength and reputation, while ensuring that capital is well deployed to support business activities in line with the Group strategy. The Group's risk management framework is based on transparency, management accountability and independent oversight.

Risk management is an integral part of the business planning process with strong senior management and Board involvement. We continuously work to strengthen risk management across the Group in an effort to meet the challenges resulting from a volatile market environment and increasing complexity driven by the changing regulatory landscape. Utilizing comprehensive risk management processes and sophisticated control systems, we continuously work to minimize the negative impact that may arise from risk concentrations.

The Group's business operations are designed to facilitate a commitment to conscious and disciplined risk-taking. We believe that independent risk management, compliance and audit processes with proper management accountability are critical to the interests and concerns of stakeholders. The Group's approach to risk management is supported by the following principles:

- Establish a clear risk appetite that sets out the types and levels of risk we are prepared to take;
- Have in place risk management and compliance policies that set out authorities and responsibilities for taking and managing risks;
- Seek to establish resilient risk constraints that promote multiple perspectives on risk and reduce the reliance on single risk measures;
- Actively monitor risks and take mitigating actions where they fall outside accepted levels; and
- Breaches of risk limits, flags or tolerances are identified, analyzed and escalated, and large, repeated or unauthorized exceptions may lead to terminations, adverse adjustments to compensation or other disciplinary action.

Culture

Our culture encompasses a shared set of values across the Group that fosters the importance, understanding and control of risk.

We seek to promote a strong risk culture where employees are empowered to take accountability for identifying and escalating risks and for challenging inappropriate actions. Expectations on risk culture are regularly communicated by senior management, reinforced through policies and training, and considered in the performance assessment and compensation processes and, with respect to employee conduct, assessed by formal disciplinary review committees. The Group's Code of Conduct is based on our shared corporate values and sets forth the behavioral expectations of our employees and members of the Board, in order to maintain and strengthen our reputation for integrity, fair dealing and measured risk-taking.

In 2022, we strengthened our approach to risk culture with the development of a risk culture framework that is made up of expected organizational “behaviors” and “foundations”. The purpose of our risk culture framework is to help us understand in more detail what a strong risk culture is and to foster it across Credit Suisse. We also started to measure our progress with a risk culture dashboard and developed a comprehensive action plan to increase awareness. As started in 2021, we have continued embedding risk culture into our performance and compensation processes. Additional activities in 2022 focused on addressing the findings from our employee survey to strengthen our culture and to further embed our organizational purpose and values.

- Refer to “Purpose & Strategy” in our Sustainability Report, available on credit-suisse.com/sustainabilityreport, for further information on our approach to culture.

Governance

Effective governance sets a solid foundation for comprehensive risk management discipline. The Group’s risk governance framework is based on a “three lines of defense” governance model, where each line has a specific role with defined responsibilities and works in close collaboration to identify, assess and mitigate risks.

The first line of defense represents the business area or function that allows the risk to enter the Group from clients, employees or other third parties or events and is responsible for identifying, measuring, managing and reporting risks on a front-to-back basis in line with the Board’s risk appetite. The first line of defense is fully accountable for managing risks inherent in its activities.

The second line of defense consists of independent risk management, compliance and control functions which are responsible for establishing risk management framework and associated control standards, and providing independent challenge to the activities, processes and controls carried out by the first line of defense. In this context, the Risk function (Risk), for example, is responsible for articulating and designing the risk appetite framework across the Group. The second line of defense can perform and complement the responsibility of identification, measurement, management and reporting of risks, while the first line of defense retains the overall accountability for risk management related to its activities. Independent risk management in the second line of defense is not limited to the Risk and Compliance functions.

The third line of defense is the Internal Audit function, which monitors the effectiveness of controls across various functions and operations, including risk management, compliance and governance practices.

The Group’s operations are regulated by authorities in each of the jurisdictions in which we conduct business. Central banks and other bank regulators, financial services agencies, securities agencies and exchanges and self-regulatory organizations

are among the regulatory authorities that oversee our businesses. FINMA is our primary regulator.

- Refer to “Regulation and supervision” in I – Information on the company for further information.

The Group’s governance includes a committee structure and a comprehensive set of corporate policies which are developed, reviewed and approved by the Board, the Executive Board, their respective committees, the Chief Risk Officer of the Group (CRO) and the board of directors of significant subsidiaries, in accordance with their respective responsibilities and levels of authority.

- Refer to “Board of Directors” and “Executive Board” in IV – Corporate Governance for further information.

Board of Directors

The Board is responsible for our overall strategic direction, supervision and control, and for defining our overall tolerance for risk. In particular, the Board approves the risk management framework and sets overall risk appetite for the Group in consultation with its Risk Committee (Risk Committee), among other responsibilities and authorities defined in the Organizational Guidelines and Regulations (OGR).

The Board has six standing committees: the Governance and Nominations Committee, the Audit Committee, the Compensation Committee, the Conduct and Financial Crime Control Committee, the Risk Committee and the Digital Transformation and Technology Committee. In addition, the Board has one advisory committee, the Sustainability Advisory Committee. These committees assist the Board in fulfilling its oversight responsibilities, including risk management.

- Refer to “Board of Directors” in IV – Corporate Governance for further information.

Executive Board

The Executive Board is responsible for establishing our strategic business plans, subject to approval by the Board, and implementing such plans. It further reviews and coordinates significant initiatives and approves Group-wide policies. The CRO and the Chief Compliance Officer of the Group (CCO) represent the Risk and Compliance functions, respectively, and provide regular information and reports to the Executive Board and the Board.

The Executive Board currently has five standing committees: the Executive Board Risk Management Committee (ExB RMC), the Group Capital Allocation and Liability Management Committee, the Credit Suisse AG Parent Capital Allocation, Liability and Risk Management Committee, Valuation Risk Management Committee and the Group Conduct Board.

- Refer to “Executive Board” in IV – Corporate Governance for further information.

Risk function

Risk, headed by the CRO, is an independent global function responsible for providing risk management oversight and establishing a holistic risk and control framework. Risk engages with

the business divisions and aims to provide effective challenge, to enable sustainable and balanced risk taking and support the Group's long-term value creation. As part of this role, the function promotes accountability and risk ownership across the Group, defines, monitors and manages its risk appetite and implements and monitors risk relevant policies and procedures.

The organizational structure of Risk is aligned to oversee the key risk types across the business divisions and legal entities.

Compliance function

Compliance, headed by the CCO, is an independent global function that works with the businesses to manage risks arising from the potential failure to comply with applicable laws, regulations, rules or market standards. As a second line of defense function, responsibilities include independently assessing compliance risk, executing, monitoring and testing activities and reporting on adherence to our compliance risk appetite and other significant matters to the Board and senior management. Compliance creates, implements and monitors compliance policies and procedures designed to prevent or detect compliance breaches of employees and clients. Compliance is mandated to ensure that regulatory and compliance risks are overseen and managed in the organization and is also responsible for the identification and appropriate remediation of significant breaches of the Group's compliance processes and controls. Compliance runs global risk oversight programs, for example anti-fraud, conflict of interest, cross border and financial crime compliance, and establishes and monitors policies, guidelines, procedures and controls related to potential risks such as money laundering, bribery and corruption and sanctions.

The organizational structure of Compliance is aligned to oversee our divisions as well as our regions and significant legal entities and covers global key compliance topics.

Risk appetite framework

Overview

We maintain a comprehensive Group-wide risk appetite framework, which is governed by a global policy and provides a robust foundation for risk appetite setting and management across the Group. A key element of the framework is a detailed statement of the Board-approved risk appetite which is aligned to our financial and capital plans. The framework also encompasses the processes and systems for assessing the appropriate level of risk appetite required to constrain our overall risk profile.

Risk capacity is the maximum level of risk that we can assume, given our current level of resources before breaching any constraints determined by liquidity and capital requirements, the operational environment and our responsibilities to depositors, shareholders, investors and other stakeholders. Risk appetite expresses the aggregate level and types of risk we are willing to assume within our risk capacity to achieve our strategic objectives and business plan. Risk profile is a

point-in-time assessment of our net risk exposures aggregated within and across each relevant risk category and is expressed in a variety of different quantitative risk metrics and qualitative risk observations. The size of our risk profile is restricted to the planned level of our risk appetite through the use of risk constraints, such as limits, flags and tolerances. In response to the Archegos matter and related regulatory observations, in 2022, Credit Suisse launched a proposal to streamline and enhance the suite of quantitative risk constraints. The enhanced risk constraints framework reduces the available constraints from five types to three: limits, flags and tolerances (the latter only for non-financial risk and model risk).

Key aspects and process

The Group risk appetite framework is governed by an overarching global policy that encompasses the suite of specific policies, processes and systems with which the risk constraints are calibrated and the risk profile is managed. Strategic risk objectives (SROs) are effectively embedded across our organization at the Group, business division and legal entity level through a suite of different types of risk measures (quantitative and qualitative) as part of our efforts to ensure we operate within the thresholds defined by the Board. The SROs are regularly assessed as part of our continuing enhancements to our risk management processes. In February 2023, the Board approved an enhanced set of SROs to support the Group's strategic objectives which consists of:

- promoting stability of earnings to support performance in line with financial objectives;
- ensuring sound management of funding and liquidity in normal and stressed conditions;
- maintaining capital adequacy under both normal and stressed conditions;
- maintaining the integrity of our business and operations;
- controlling concentrations within position risk or revenues which may pose a material risk to the Group; and
- managing environmental, social and governance risks as well as impacts related to the provision of financial services in line with our sustainability principles and commitments.

Group-wide risk appetite is reviewed in partnership with the financial and capital planning process at least annually, based on bottom-up forecasts, risk-reward and divisional objectives that reflect planned risk usage by the businesses and top-down, in alignment with Board-driven strategic risk objectives and risk appetite. Scenario-based stress testing of financial and capital plans is an essential element in the risk appetite calibration process, through which our strategic risk objectives, financial resources and business plans are aligned. The capital plans are also analyzed using our economic capital coverage ratio, which provides a further means of assessing bottom-up risk plans with respect to available capital resources. The Group-wide risk appetite is approved through a number of internal governance forums, including the ExB RMC, the Risk Committee and, subsequently, by the Board. Ad hoc risk appetite reviews may be triggered by material market events, material loss events, material revisions to the financial and capital plans, the internal capital adequacy assessment process (ICAAP) results as well as following breaches of Board-level risk constraints.

The risk appetite statement is the formal plan, approved by the Board, for our Group-wide risk appetite. Legal entity risk appetites are set by the local legal entity board of directors within the limits established by the Group. The top-down and bottom-up risk appetite calibration process includes the following key steps:

Top-down:

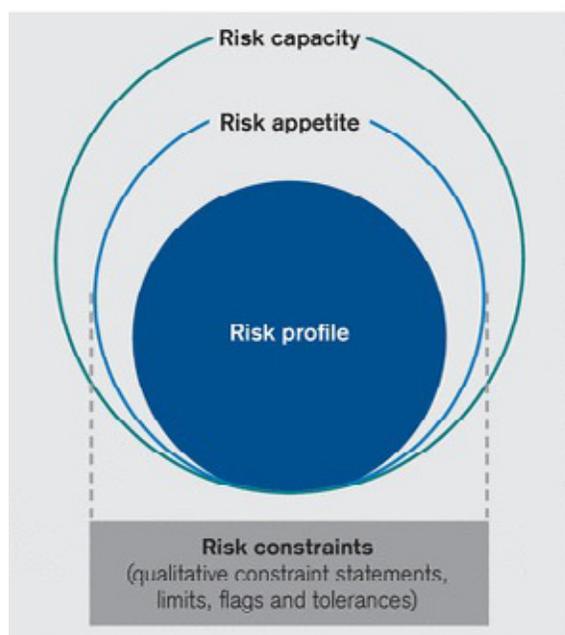
- Group-level strategic risk objectives are agreed by the Board in line with our financial and capital objectives.
- Top-down risk capacities and risk appetites are determined with reference to available resources and key thresholds, such as minimum regulatory requirements.
- A risk appetite statement is determined and approved annually by the Board, and is based on the strategic risk objectives, the comprehensive scenario stress testing of our forecasted financial results and capital requirements, and our economic capital framework. The risk appetite statement comprises quantitative and qualitative risk measures necessary for adequate control of the risk appetite across the organization. A review of the top-down and bottom-up risk appetite levels and their allocation between divisions and legal entities is performed.
- Separate legal entity risk appetite frameworks aligned to local regulatory requirements are in place for material subsidiaries. An integrated annual planning process is designed to ensure that individual legal entity risk appetites are consistent with Group levels.
- Divisional risk committees are responsible for allocating risk appetite within the respective divisions based on individual business line reviews and requirements.

Bottom-up:

- Planned risk levels and related risk appetite requests are provided by divisional business experts in conjunction with financial and capital plans in order to promote consistency with the business strategy. Risk plans are reviewed by the relevant risk management committees.
- Bottom-up risk forecasts are aggregated across businesses to assess divisional and Group-wide risk plans and to support management decisions on variations to existing risk appetite levels or the possible implementation of new risk appetite measures.
- The effectiveness of risk appetite in support of business strategy execution and delivery against financial objectives is assessed via a risk appetite effectiveness framework. This framework assists senior management and the Board in ensuring that appropriate levels of risk appetite are set and that the subsequent risk constraints are appropriately calibrated.
- Risk, financial and capital plans are jointly reviewed and approved by the Executive Board and the Board.

The Group-wide risk appetite framework encompasses multiple quantitative and qualitative aspects. The quantitative risk appetite aspects are measured using various metrics, including stress scenario metrics related to capital, earnings and liquidity, RWA and economic risk capital. The qualitative risk appetite aspects are used to monitor adherence to international and local laws and regulations, industry guidelines and internal policies, and are designed to manage and mitigate the Group's conduct and reputational risk.

Risk appetite framework – key definitions



Risk capacity Maximum level of risk that we can assume given our current level of resources before breaching any constraints determined by capital and liquidity requirements, the operational environment and our responsibilities to depositors, shareholders, investors and other stakeholders.

Risk appetite Aggregate level and types of risk we are willing to assume within our risk capacity to achieve our strategic objectives and business plan.

Risk profile Point-in-time assessment of our net risk exposures aggregated within and across each relevant risk category and expressed in a variety of different quantitative risk metrics and qualitative risk observations.

Risk constraints Quantitative and qualitative measures based on forward-looking assumptions that allocate our aggregate risk appetite to businesses, legal entities, risk categories, concentrations and, as appropriate, other levels.

Risk constraints

A core aspect of our risk appetite framework is a sound system of integrated risk constraints. These allow us to maintain our risk profile within our overall risk appetite, and encourage meaningful discussion between the relevant businesses, Risk functions and members of senior management around the evolution of our risk profile and risk appetite. Considerations include changing external factors (such as market developments, geopolitical conditions and client demand) as well as internal factors (such as financial resources, business needs and strategic views). Our risk appetite framework utilizes a suite of different types of risk constraints to reflect the aggregate risk appetite of the Group and to further cascade risk appetite across our organization, including among business divisions and legal entities. The risk constraints restrict our maximum balance sheet and off-balance sheet exposure given the market environment, business strategy and financial resources available to absorb losses. Different levels of seniority are mapped to each type of risk constraint, which require specific permanent or temporary modification, enforcement and breach response protocols. Risk constraints are monitored on a regular basis as part of our efforts to ensure they continue to fulfill their purposes.

We define the following risk constraint categories:

- **Qualitative constraints** represent constraints that are used to manage identified but unquantifiable or subjective risks, with adherence assessed by the appropriate level of constraint authority.
- **Quantitative constraints** represent constraints that are used to manage identified quantifiable risks and exist in the form of limits, flags and tolerances.

Constraint authority for the risk constraints is determined by the relevant approving body and constraints are currently in effect for all key risk governance bodies and committees including the Board, its Risk Committee and the ExB RMC. The appropriateness of the constraint types for the various risk classes within our risk appetite, including market, credit, non-financial and liquidity risk, is determined considering the respective characteristics of the various risk constraint types.

In general, risk constraints will be set in different ways depending on their respective functions and objectives. For example, certain risk constraints will reflect a maximum risk appetite, whereas others will be set closer to the current usage in order to ensure timely escalation and feedback among the relevant businesses, Risk functions and members of senior management. These considerations also influence the extent to which certain risk constraints may be introduced, modified or retired in response to changing external and internal factors.

We define the following types of risk constraints:

- **Qualitative constraint statements** are required for all qualitative constraints. Qualitative constraint statements need to be specific and to clearly define the respective risk to ensure that the risk profile for unquantifiable or subjective risks is readily assessable.

- **Limits** are specific threshold levels for a given risk metric. Limits are hard or binding thresholds that require discussion to avoid a breach and trigger immediate remediating action if a breach occurs.
- **Flags** are early warning indicators of potentially high utilizations of the Group's actual risk profile compared to its approved risk appetite, which serve primarily as a soft threshold intended to steer risk exposures. Flags can be set to calibrate or test future limits.
- **Tolerances** are designed as management constraints for non-financial risk and model risk management to initiate discussion. Breach of a tolerance level triggers review by the relevant constraint authority.

With respect to limits, flags and tolerances, established criteria are applied in the selection of the appropriate risk constraint, including the assessment of (i) the materiality of the respective risk metric with regard to its contribution to the overall Group risk appetite; (ii) the importance of the risk constraint to the organization from a qualitative perspective; (iii) the characteristic of the respective risk, e.g., risk concentrations or high priority risk for the Group; and (iv) the availability of mitigating actions to manage the risk profile of the Group in relation to the respective risk.

We have established a constraint structure which manages the Group's risk profile using multiple metrics, including VaR, scenario analysis, economic risk capital and various exposure limits at the Group level. The overall risk limits for the Group are set by the Board in consultation with its Risk Committee and are binding. In the fourth quarter of 2022, following significant deposit and net asset outflows as previously disclosed, we observed breaches of our internal Board level liquidity constraints. However, at the Group level, we maintained at all times the core regulatory requirements of the LCR and the NSFR. Additionally, following Russia's invasion of Ukraine, we breached the Russia country risk limit at the Board level, driven by counterparty ratings downgrades. We subsequently reduced the risk exposure, which remediated the breach.

Dedicated constraints are also in place to cover the specific risk profiles of individual businesses and legal entities. In the context of the overall risk appetite of the Group, as defined by the limits set by the Board in consultation with its Risk Committee, the ExB RMC is responsible for allocating key limits to divisions as deemed necessary to manage risk within individual lines of business. The divisional risk management committees and the divisional and legal entity chief risk officers are responsible for allocating risk appetite further within the organization. For this purpose, they use a detailed framework of individual risk limits designed to control risk-taking at a granular level by individual businesses and in the aggregate. The risk constraints are intended to:

- limit overall risk-taking to the Group's risk appetite;

- trigger senior management discussions with the businesses involved, risk management and governance committees in case of substantial change in the overall risk profile;
- promote consistent risk measurement across businesses;
- provide a common framework for the allocation of resources to businesses; and
- provide a basis for protecting the Group’s capital base and meeting strategic risk objectives.

The limit owners are responsible for reviewing warning thresholds for risk limits. They may set warning thresholds for potential limit excesses at any level lower than the approved limits as deemed appropriate after taking into account the nature of the underlying business. A comprehensive risk appetite constraint framework is in place which defines roles and responsibilities, including risk constraint setting and escalation authorities. Risk limit breaches that are not remediated within strictly defined remediation time-lines across all risk limits must be escalated to the CRO and the corresponding divisional Executive Board member.

Risk coverage and management

We use a wide range of risk management practices to address the variety of risks that arise from our business activities. Policies, processes, standards, risk assessment and measurement methodologies, risk appetite constraints, and risk monitoring and reporting are key components of our risk management practices. Our risk management practices complement each other in our analysis of potential loss, support the identification of interdependencies and interactions of risks across the organization and provide a comprehensive view of our exposures. We regularly review and update our risk management practices to promote consistency with our business activities and relevance to our business and financial strategies. Our main risk types include the following:

- Capital risk
- Credit risk
- Market risk
- Non-financial risk
- Model risk
- Reputational risk
- Climate-related risks
- Business risk
- Fiduciary risk
- Pension risk
- Funding liquidity risk

Funding liquidity risk is the risk that the Group, although solvent, either does not have sufficient financial resources to enable it to meet its obligations as they fall due, or can secure such resources only at excessive cost. Management of funding liquidity risk is described in the “Liquidity and funding management” section of this report.

- Refer to “Liquidity and funding management” for further information on funding liquidity risk.

Capital risk

Definition

Capital risk is the risk that we do not have adequate capital to support our activities and maintain the minimum capital requirements. We maintain a robust and comprehensive framework for assessing capital adequacy, defining internal capital targets and ensuring that these capital targets are consistent with our overall risk profile and the current operating environment.

Sources of capital risk

Capital risk results from the Group’s risk exposures, available capital resources, regulatory requirements and accounting standards.

Evaluation and management of capital risk

The stress testing framework and economic risk capital are tools used by the Group to evaluate and manage capital risk. Our capital management framework is designed to ensure that we meet all regulatory capital requirements for the Group and its regulated subsidiaries.

- Refer to “Capital strategy” and “Regulatory framework” in Capital management for further information on the management of capital and RWA and regulatory capital requirements.

Overview of stress testing framework

Stress testing (or scenario analysis) represents a risk management approach that formulates hypothetical questions, including what would happen to our portfolio if, for example, historic or adverse forward-looking events were to occur. A well-developed stress testing framework provides a powerful tool for senior management to identify these risks and also take corrective actions to protect the earnings and capital from undesired impacts.

Stress testing is a fundamental element of our Group-wide risk appetite framework included in overall risk management to ensure that our financial position and risk profile provide sufficient resilience to withstand the impact of severe economic conditions. Stress testing results are monitored against limits, and are used in risk appetite discussions and strategic business planning and to support our ICAAP. The ICAAP aims to identify and accurately assess the significance of material risks faced by the Group. As part of the Group-wide ICAAP process, the bank assesses its present financial position and expected changes to the current business profile, the environment in which it expects to operate, its projected business plans, projected financial position and future planned sources of capital. Within the risk appetite framework, the ExB RMC sets Group-wide and divisional stressed position loss limits to correspond to minimum post-stress capital ratios. Currently, limits are set on the basis of BIS CET1 capital ratios. Stress tests also form an integral part of the Group’s capital planning and the recovery and resolution plan (RRP) process. Within the RRP, stress tests provide the indicative scenario severity required to reach recovery and resolution capital levels.

Stress testing provides key inputs for managing the following objectives of the risk appetite framework:

- Ensuring Group-wide capital adequacy on both a regulatory basis and under stressed conditions: We run a suite of scenarios on forecasted financial metrics such as net revenues, total operating expenses, income before taxes and RWA. The post-stress capital ratios are assessed against the risk appetite of the Group.
- Maintaining stable earnings: We mainly use stress testing to quantitatively assess earnings stability risk. Earnings appetites are established and monitored as part of our efforts to contain excessive risk-taking which could compromise our earnings stability.

We also conduct externally defined stress tests that meet the specific requirements of regulators. For example, as part of various regular stress tests and analyses, FINMA requires a semi-annual loss potential analysis that includes two stress tests. For 2022, the FINMA stress tests included an extreme scenario that sees the world economy experience a severe recession, mainly as a result of the worsening of a European debt crisis, and an alternative scenario with similar severity but opposite evolution of interest rates and inflation (deflation in the former scenario versus supply-driven inflation pressures and rising interest rates in the latter scenario). In 2022, Credit Suisse developed a new persistent stagflation internal scenario to stress capital adequacy as part of its ICAAP. The persistent stagflation scenario envisages continued increases in inflation due to higher commodity prices, supply chain disruptions and overheated labor markets. Aggressive central bank interest rate hikes are envisaged to cause further tightening of financial conditions.

Methodology and scope of Group-wide stress testing

Stress tests are carried out to determine stressed position losses, earnings volatility and stressed capital ratios using historical, forward-looking and reverse stress testing scenarios. Stress tests also include the scenario impact on RWA through changes to market, credit and operational components. Scenarios are reviewed and updated regularly as markets and business strategies evolve.

We use historical stress testing scenarios to consider the impact of market shocks from relevant periods of extreme market disturbance. The calibration of internal scenarios is influenced by the identification of the most severe moves that have occurred in recent history. Severe flight to quality (SFTQ) is one of the key scenarios used for Group-wide stress testing and risk appetite setting. It is a combination of market shocks and defaults that reflects conditions similar to what followed the 2008/2009 financial crisis. The SFTQ scenario assumes a severe crash across financial markets, along with stressed default rates.

We use forward-looking stress testing scenarios to complement historical scenarios. The forward-looking scenarios are centered on potential macroeconomic, geopolitical or policy threats. We discuss the backdrop to several forward-looking scenarios, review a wide range of scenarios and select those that are most relevant to the analysis of key macroeconomic shocks. Some examples of forward-looking scenarios include global recessionary trends due to the world moving into US- and China-led economic blocks, a so-called emerging markets economic “hard landing” and the impact of monetary policy changes by central banks.

We also use a flight to quality lite scenario (FTQ Lite), which is a one-in-three years likelihood scenario with a lower severity of impact than SFTQ but with a higher likelihood of occurrence. FTQ Lite is used to test the earnings robustness of the Group.

We use reverse stress testing scenarios to complement traditional stress testing and enhance our understanding of business model vulnerabilities. Reverse stress testing leverages the stress results and outcome as evidenced under severe internal capital scenarios. In addition to the modeled impact generated by the scenario, management will assume further idiosyncratic impacts (e.g., non-financial risk incidents, large counterparty defaults, credit rating downgrades, reputational risk and loss of clients) that would lead to business model failure.

Overview of economic risk capital

Economic risk capital measures risks in terms of economic realities rather than regulatory or accounting rules and estimates the amount of capital needed to remain solvent and in business under extreme market, business and operating conditions over the period of one year. This framework allows us to assess, monitor and manage capital adequacy and solvency risk in both “going concern” and “gone concern” scenarios. In a “going concern” scenario, we hold sufficient capital to absorb losses to ensure continuity of service. In a “gone concern” scenario, we hold sufficient capital to absorb unexpected losses at a confidence level of 99.97% and fund an orderly resolution without recourse to public resources. Economic risk capital supplements the Group’s RRP process.

At the level of the Group, economic risk capital is used primarily as a tool for capital management in a “gone concern” scenario, measuring the combined impact from quantifiable risks such as market, credit, operational, pension and expense risk. Additionally, economic risk capital is also used for risk management purposes for specific businesses within the Group.

- Refer to “Capital strategy” and “Regulatory framework” in Capital management for further information on our capital management framework.

Position risk categories

	Risks captured
Credit risk	<ul style="list-style-type: none">• Risk of counterparty defaults relating to credit exposures directly held in the form of lending products (including loans and credit guarantees) or derivatives and shorter-term exposures such as underwriting commitments and trading book inventory, as well as credit exposures relating to issuers of collateral in lombard and share-backed loans, derivatives, reverse repurchase and securities lending transactions; settlement risk is not captured in the economic risk capital framework• Potential changes in creditworthiness relating to private banking corporate and retail credit exposures
Non-traded credit spread risk	<ul style="list-style-type: none">• Potential changes in creditworthiness relating to investment banking credit exposures as well as to the credit, debit and funding valuation adjustments
Securitized products	<ul style="list-style-type: none">• Commercial and residential real estate activities, including mortgage-backed securities, mortgage loans and real estate acquired at auction, and other securitized products, including asset-backed securities• Benefits from certain market risk hedges
Traded risk	<ul style="list-style-type: none">• Interest rates, credit spreads, foreign exchange rates, equity and commodity prices and volatilities, equity risk arbitrage, life finance and litigation activities, and illiquid hedge fund exposures• Risks currently not implemented in our economic risk capital models for traded risks, primarily for fixed income and equity trading, such as certain basis risks, higher order risks and cross risks between asset classes
Equity investments	<ul style="list-style-type: none">• Private equity and other illiquid equity investment exposures

Methodology and scope of economic risk capital

Our economic risk capital model is a set of methodologies used for measuring quantifiable risks associated with our business activities on a consistent basis. It is calculated separately for position risk (reflecting our exposure to market and credit risks), operational risk and other risks, using appropriate methodologies for each risk category. Economic risk capital is calculated by aggregating position, operational and other risks.

Position risk is the level of unexpected loss from our portfolio of balance sheet and off-balance sheet positions over a one-year holding period and includes market and credit risks. It is calculated at a 99% confidence level for risk management purposes reflecting a “going concern” scenario and at a 99.97% confidence level for capital management purposes reflecting a “gone concern” resolution scenario. Our position risks categories are described in the table “Position risk categories”. To determine our overall position risk, we consider the diversification benefit across risk types. When analyzing position risk for risk management purposes, we look at individual risk types before and after the diversification benefit.

Operational risk is the risk of an adverse impact arising from inadequate or failed internal processes, people or systems, or from external events. We use an internal model to calculate the economic capital requirement for operational risk at a 99.97% confidence level and a one-year holding period.

Other risks covered include expense risk, pension risk, owned real estate risk, foreign exchange risk between available economic capital and economic risk capital, and the benefit from deferred share-based compensation awards.

Available economic capital is our internal view of the capital available to absorb losses based on the reported BIS CET1 capital under the Basel framework, with economic adjustments applied to provide consistency with our economic risk capital.

The economic risk capital coverage ratio operates with a number of distinct bands that serve as key controls for monitoring and managing our operational solvency.

Governance of capital risk

For capital risk, we have a Group-wide scenario calibration and analysis process, which includes the design of scenarios and the assessment and approval of scenario results. Stress tests are conducted on a regular basis and the results, trend information and supporting analysis are reported to the Board, senior management and regulators. We have a comprehensive set of stress testing models and an established governance for approving new and changed models and methodologies.

Credit risk

Definition

Credit risk is the risk of financial loss arising as a result of a borrower or counterparty failing to meet its financial obligations or as a result of deterioration in the credit quality of the borrower or counterparty. In the event of a default, a bank generally incurs a loss equal to the amount owed by the debtor, less any recoveries from foreclosure, liquidation of collateral, the restructuring of the debtor company or other recovery proceeds from the debtor. A change in the credit quality of a counterparty has an impact on the valuation of assets measured at fair value, with valuation changes recorded in the consolidated statements of operations.

Main sources of credit risk by division

Wealth Management	Lending against financial collateral and real assets (e.g., real estate, ships, yachts and aircraft) and corporate lending including export finance
Investment Bank	Loan underwriting and lending commitments to corporate clients, markets and trading activities including securities financing and derivatives products with global institutional clients, including banks, insurance companies, asset managers and hedge funds; warehouse facilities for the financing of mortgages and other asset types
Swiss Bank	Real estate financing, lending to corporate clients, lending against financial collateral and retail and consumer lending
Corporate Center	Money market exposure through balance sheet management, credit exposure with central counterparties and legacy positions

The divisions represent Credit Suisse's organizational structure effective from January 1, 2022 to December 31, 2022. As a result of the announced strategy effective from January 1, 2023 and the new organizational structure, a significant portion of exposures will be transferred from the Investment Bank to the Non-Core Unit which will comprise existing legacy positions and those arising from the new strategy. As a result, the Corporate Centre will also be restructured.

Sources of credit risk

Credit risk can arise from the execution of our business strategy in the divisions and includes risk positions such as exposures directly held in the form of lending products (including loans, money market deposits and credit guarantees) or traded products (derivatives, securities financing), shorter-term exposures such as underwriting commitments pending distribution, and settlement risk related to the exchange of cash or securities outside of typical delivery versus payment structures. The main sources of credit risk are presented in the table "Main sources of credit risk by division" and comprise existing portfolios of credit exposure in ongoing business, as well as select portfolios of legacy positions which are considered non-core and do not form part of continuing business.

Evaluation and management of credit risk

We use a credit risk management framework which provides for the consistent evaluation, measurement and management of credit risk across the Group. Assessments of credit risk exposures for internal risk estimates and RWA are calculated based on PD, LGD and EAD models. The credit risk framework incorporates the following core elements:

- counterparty and transaction assessments: application of internal credit ratings (PD), assignment of LGD and EAD values in relation to counterparties and transactions;
- credit limits: establishment of credit limits, including limits based on notional exposure, potential future exposure and stress exposure, subject to approval by delegated authority holders, to serve as primary risk controls on exposures and to prevent undue risk concentrations;
- credit monitoring, impairments and provisions: processes to support the ongoing monitoring and management of credit exposures, supporting the early identification of deterioration and any subsequent impact; and
- risk mitigation: active management of credit exposures through the use of cash sales, participations, collateral, guarantees, insurance or hedging instruments.

In addition to traditional credit exposure measurement, monitoring and management using current and potential future exposure metrics, we perform counterparty and portfolio credit risk assessments of the impact of various internal stress test scenarios. We assess the impact to credit risk exposures arising from market movements in accordance with the scenario narrative, which can further support the identification of concentration or tail risks. Our scenario suite includes historical scenarios as well as forward-looking scenarios which are used across the Risk function.

Counterparty and transaction assessments

Credit Risk evaluates and assesses counterparties and clients to whom the Group has credit exposures. For the majority of counterparties and clients, Credit Risk uses internally developed statistical rating models to determine internal credit ratings which are intended to reflect the PD of each counterparty. These rating models are backtested against internal experience, validated by a function independent of model development and approved by our main regulators for application in the regulatory capital calculation under the A-IRB approach of the Basel framework. Findings from backtesting serve as a key input for any future rating model developments.

Internal statistical rating models are based on a combination of quantitative factors (e.g., financial fundamentals and market data) and qualitative factors (e.g., credit history and economic trends).

For the remaining counterparties where statistical rating models are not used, internal credit ratings are assigned on the basis of a structured expert approach using a variety of inputs such as peer analyses, industry comparisons, external ratings and research as well as the judgment of expert credit officers.

Credit Suisse counterparty ratings

Ratings	PD bands (%)	Definition	S&P	Fitch	Moody's	Details
AAA	0.000–0.021	Substantially risk free	AAA	AAA	Aaa	Extremely low risk, very high long-term stability, still solvent under extreme conditions
AA+	0.021–0.027	Minimal risk	AA+	AA+	Aa1	Very low risk, long-term stability, repayment sources sufficient under lasting adverse conditions, extremely high medium-term stability
AA	0.027–0.034		AA	AA	Aa2	
AA-	0.034–0.044		AA-	AA-	Aa3	
A+	0.044–0.056	Modest risk	A+	A+	A1	Low risk, short- and medium-term stability, small adverse developments can be absorbed long term, short- and medium-term solvency preserved in the event of serious difficulties
A	0.056–0.068		A	A	A2	
A-	0.068–0.097		A-	A-	A3	
BBB+	0.097–0.167	Average risk	BBB+	BBB+	Baa1	Medium to low risk, high short-term stability, adequate substance for medium-term survival, very stable short term
BBB	0.167–0.285		BBB	BBB	Baa2	
BBB-	0.285–0.487		BBB-	BBB-	Baa3	
BB+	0.487–0.839	Acceptable risk	BB+	BB+	Ba1	Medium risk, only short-term stability, only capable of absorbing minor adverse developments in the medium term, stable in the short term, no increased credit risks expected within the year
BB	0.839–1.442		BB	BB	Ba2	
BB-	1.442–2.478		BB-	BB-	Ba3	
B+	2.478–4.259	High risk	B+	B+	B1	Increasing risk, limited capability to absorb further unexpected negative developments
B	4.259–7.311		B	B	B2	
B-	7.311–12.550		B-	B-	B3	
CCC+	12.550–21.543	Very high risk	CCC+	CCC+	Caa1	High risk, very limited capability to absorb further unexpected negative developments
CCC	21.543–100.00		CCC	CCC	Caa2	
CCC-	21.543–100.00		CCC-	CCC-	Caa3	
CC	21.543–100.00		CC	CC	Ca	
C	100	Imminent or actual loss	C	C	C	Substantial credit risk has materialized, i.e., counterparty is distressed and/or non-performing. Adequate specific provisions must be made as further adverse developments will result directly in credit losses.
D1	Risk of default has materialized		D	D		
D2						

Transactions rated C are potential problem loans; those rated D1 are non-performing assets and those rated D2 are non-interest earning.

In addition to counterparty ratings, Credit Risk also assesses the risk profile of individual transactions and assigns transaction ratings which reflect specific contractual terms such as seniority, security and collateral.

Internal credit ratings may differ from external credit ratings, where available, and are subject to periodic review. Our internal ratings are mapped to a PD band associated with each rating which is calibrated to historical default experience using internal data and external data sources. Our internal masterscale for credit ratings is shown in the table "Credit Suisse counterparty ratings".

LGD estimates the size of loss that may arise on a credit exposure in the event of a default. We assign LGD on credit exposures based on the structure of the transaction and credit mitigation such as collateral or guarantees. The LGD values are calibrated to reflect a downturn macroeconomic environment and include recovery costs.

EAD represents the expected amount of credit exposure in the event of a default and reflects the current drawn exposure and an expectation regarding the future evolution of the credit exposure. For loan exposures, a credit conversion factor is applied to project the additional drawn amount between current utilization and the approved facility amount. The credit exposure related to traded products such as derivatives is based on a simulation using statistical models.

credit portfolio management, credit policy, management reporting, risk-adjusted performance measurement, economic risk capital measurement and allocation, and financial accounting.

Credit limits

Our credit exposures are managed at the counterparty and ultimate parent level in accordance with credit limits which apply in relation to notional exposure, potential future exposure and stress exposure where appropriate. Credit limits are established to constrain the lending business where exposure is typically related to committed loan amounts, and similarly in relation to the trading business where exposure is typically subject to model-based estimation of future exposure amounts. Credit limits to counter-parties and groups of connected companies are subject to formal approval under delegated authority, and where significant in terms of size or risk profile, are subject to further escalation to the Group chief credit officer or the CRO. In addition to credit limits based on current or potential credit exposure, divisions may also apply additional limits to constrain risk based on other risk metrics including stress scenario results.

In addition to counterparty and ultimate parent exposures, credit limits and flags are also applied at the portfolio level to monitor and manage risk concentrations such as to specific industries, countries or products. In addition, credit risk concentration is regularly supervised by credit and risk management committees. Breaches of credit limits and other risk

We use internal rating methodologies consistently for the purposes of approval, establishment and monitoring of credit limits,

constraints, including stress scenario impacts, are monitored on an ongoing basis with formal escalation procedures in place. Limit breaches require escalation to the relevant limit setting authority.

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Credit monitoring, impairments and provisions

A credit quality monitoring process is performed to provide for early identification of possible changes in the creditworthiness of clients, and includes regular asset and collateral quality reviews, business and financial statement analysis, and relevant economic and industry studies. Credit Risk maintains regularly updated watch lists and holds review meetings to re-assess counterparties that could be subject to adverse changes in creditworthiness. The review of the credit quality of clients and counterparties does not depend on the accounting treatment of the asset or commitment.

In the event that a deterioration in creditworthiness is likely to result in a default, credit exposures are transferred to the regional recovery management functions within Credit Risk. The determination of any allowance for credit losses in relation to such exposures is based on an assessment of the exposure profile and expectations for recovery. The recoverability of loans in recovery management is regularly reviewed. The frequency of the review depends on the individual risk profile of the respective positions.

We have an impairment process for loans valued at amortized cost which are specifically classified as potential problem loans, non-performing loans, non-interest-earning loans or restructured loans. The Group maintains specific allowances for credit losses, which we consider to be a reasonable estimate of losses identified in the existing credit portfolio, and provides for credit losses based on a regular and detailed analysis of all counterparties, taking collateral value into consideration, where applicable. If uncertainty exists as to the repayment of either principal or interest, a specific allowance for credit losses is either created or adjusted accordingly. The specific allowance for credit losses is revalued regularly by the recovery management function depending on the risk profile of the borrower or credit-relevant events. We regularly review the appropriateness of allowances for credit losses.

A general allowance for credit losses is estimated for all loans and other financial assets held at amortized cost and related off-balance sheet credit exposures not specifically identified as impaired. The methodology for the calculation of provisions and allowances for credit losses is a forward-looking expected loss approach which meets the requirements of the current expected credit losses (CECL) approach under US GAAP. The method for determining the inherent credit loss in certain lending portfolios is derived from calculating the expected lifetime credit loss via bespoke models and requires significant management judgment by means of a qualitative overlay process. The forward-looking component of the models is reflected through forecasts of portfolio- and region-specific macroeconomic factors. In addition to these factors for systematic risk, the models contain idiosyncratic risk drivers. Qualitative adjustments reflect remaining idiosyncratic and portfolio-specific risks, which are not captured in the models. The calibration of these models is based on internal and/or external data. PD estimates contain a time-dependent, forward-looking component. LGD estimates can contain loan-specific attributes. In addition, selected LGD models contain a forward-looking component. Similar to LGD models, EAD models can contain loan-specific and/or forward-looking information. Model outputs are subject to a monthly review process, and the related

expected credit loss assessments require approval. We have established governance for approving the Group's provision and allowance for expected credit losses on non-impaired credit exposures and also the scenario weighting probabilities and baseline macroeconomic factors.

- Refer to "Note 20 – Financial instruments held at amortized cost and credit losses" in VI – Consolidated financial statements – Credit Suisse Group for further information on our CECL methodology.

Changes in the credit quality of loans held at fair value are reflected in valuation changes recorded directly in revenues, and therefore are not part of the impaired loans balance which only includes loans valued on an amortized cost basis.

Risk mitigation

Drawn and undrawn credit exposures are managed by taking financial and non-financial collateral supported by enforceable legal documentation, as well as by utilizing credit hedging techniques. Financial collateral in the form of cash, marketable securities (e.g., equities, bonds or funds) and guarantees serves to mitigate the inherent risk of credit loss and to improve recoveries in the event of a default. Financial collateral received in the form of securities is subject to controls on eligibility and is supported by frequent market valuation depending on the asset class and are monitored to determine whether any margin calls are required to ensure exposures remain adequately collateralized. Depending on the quality of the collateral, appropriate haircuts are applied for risk management purposes. Collateral monitoring, management and margining are applied to credit exposures resulting from both on balance sheet financing of securities and synthetic financing of positions for clients through derivative contracts.

Non-financial collateral such as residential and commercial real estate, tangible assets (e.g., ships or aircraft), inventories and commodities are valued at the time of credit approval and periodically thereafter depending on the type of credit exposure and collateral coverage ratio.

In addition to collateral, we also utilize credit hedging in the form of protection provided by single-name and index credit default swaps as well as structured hedging and insurance products. Credit hedging is used to mitigate risks arising from the loan portfolio, loan underwriting exposures and counterparty credit risk. Hedging is intended to reduce the risk of loss from a specific counterparty default or broader downturn in markets that impact the overall credit risk portfolio. Credit hedging contracts are typically bilateral or centrally cleared derivative transactions and are subject to collateralized trading arrangements. Hedging risk mitigation is evaluated so that basis or tenor risk can be appropriately identified and managed.

In addition to collateral and hedging strategies, we also actively manage our loan portfolio and may sell or sub-participate positions in the loan portfolio as a further form of risk mitigation.

Country risk

As part of our overall risk management process, we manage our credit risk exposures to countries under a comprehensive country risk framework. Under the country risk framework, individual

stressed loss limits and potential exposure flags are set on an individual country basis, and exposures are managed on an ongoing basis by a dedicated country risk team. Defined stress scenario analyses are performed on a regular basis. We monitor the concentration of collateral underpinning our OTC derivative and reverse repurchase agreement exposures through monthly reporting, and also monitor the impact of sovereign rating downgrades on collateral eligibility.

Governance of credit risk

Credit risk is managed and controlled by the Credit Risk function and governed by a comprehensive framework of policies and committees. Key processes are reviewed through supervisory checks on a regular basis by Credit Risk, including the Group chief credit officer. Overall, credit risk is managed through a combination of divisional and legal entity risk controls, including by risk management committees and sub-committees, complemented by aggregate views of credit exposure at the Group level.

Credit Risk Review

Governance and supervisory checks within Credit Risk are supplemented by the Credit Risk Review function. The Credit Risk Review function is independent from Credit Risk with a direct functional reporting line to the Risk Committee Chair, administratively reporting to the CRO. Credit Risk Review assesses the Group's credit exposures and practices related to management of credit risk.

Market risk

Definition

Market risk is the risk of financial loss arising from movements in market risk factors. The movements in market risk factors that generate financial losses are considered to be adverse changes in interest rates, credit spreads, foreign exchange rates, equity and commodity prices and other factors, such as market volatility and the correlation of market prices across asset classes. A typical transaction or position in financial instruments may be exposed to a number of different market risk factors. Market risks arise from both our trading and non-trading activities.

Traded market risk

Sources of traded market risk

Market risks mainly arise from our trading activities, primarily in the Investment Bank. Our trading activities typically include fair-valued positions and risks arising from our involvement in primary and secondary market activities, for client facilitation and market-making purposes, including derivatives markets.

The Group is active globally in the principal trading markets, using a wide range of trading and hedging products, including derivatives and structured products. Structured products are customized transactions often using combinations of financial instruments and are executed to meet specific client or internal needs. As a result of our broad participation in products and markets, the Group's trading strategies are correspondingly diverse and exposures are generally spread across a range of risks and locations.

The market risks associated with the portfolio, including the embedded derivative elements of our structured products, are actively monitored and managed as part of our overall risk management framework and are reflected in our VaR measures.

Evaluation and management of traded market risk

We use market risk measurement and management methods capable of calculating comparable exposures across our many activities and employ focused tools that can model specific characteristics of certain instruments or portfolios. The tools are used for internal market risk management, internal market risk reporting and external disclosure purposes. Our principal market risk measures for traded market risk are VaR, scenario analysis, as included in our stress testing framework, position risk, as included in our economic risk capital, and sensitivity analysis. These measures complement each other in our market risk assessment and are used to measure traded market risk at the Group level. In addition, a counterparty market risk function is designed to support the management of counterparty risk, leveraging product-related market risk knowledge to complement the credit risk approach. Our risk management practices are regularly reviewed to ensure they remain appropriate and fit for purpose.

Measurement of traded market risk using value-at-risk

VaR is a risk measure that quantifies the potential loss on a given portfolio of financial instruments over a certain holding period that is expected not to be exceeded at a certain confidence level. Positions are aggregated by risk factors rather than by product. For example, interest rate risk VaR captures potential losses driven by fluctuations of interest rates affecting a wide variety of interest rate products (such as interest rate swaps and swaptions) as well as other products (such as foreign exchange derivatives and equity derivatives) for which interest rate risk is not the primary market risk driver. The use of VaR allows the comparison of risk across different businesses. It also provides a means of aggregating and netting a variety of positions within a portfolio to reflect historical correlations between different assets, allowing for a portfolio diversification benefit. Our VaR model is designed to take into account a comprehensive set of risk factors across all asset classes, and includes certain foreign exchange risk and commodity risk within the banking book.

VaR is an important tool in risk management and is used for measuring quantifiable risks from our activities exposed to market risk on a daily basis. In addition, VaR is one of the main risk measures for limit monitoring, financial reporting, calculation of regulatory capital and regulatory backtesting.

Our VaR model is based on historical data moves that derive plausible future trading losses. The model is responsive to changes in market conditions through the use of exponential weighting that applies a greater weight to more recent events, and the use of expected shortfall measures to ensure extreme adverse events are considered in the model. We use the same VaR model for risk management (including limit monitoring and financial reporting), regulatory capital calculation and regulatory backtesting.

purposes, although confidence level, holding period, historical look-back period and the scope of financial instruments considered can be different.

Our risk management VaR uses a rolling two-year historical data-set, a one-day holding period and a 98% confidence level. This means that we would expect daily mark-to-market trading losses to exceed the reported VaR not more than twice on average in 100 trading days over a multi-year observation period. The 98% confidence level VaR is calculated using an equivalent expected shortfall approach. The expected shortfall metric represents the average of the estimated worst losses beyond the confidence level. Risk management VaR is closely aligned to the model we use to measure regulatory VaR for capital purposes. Compared to regulatory VaR, however, it has a wider scope that includes trading book securitizations and banking book positions held at fair value. The scope of our risk management VaR is periodically reviewed to ensure it remains aligned with the internal risk framework and control processes.

For regulatory capital purposes, we operate under the Basel market risk framework which includes the following components for the calculation of regulatory capital: regulatory VaR, stressed VaR, IRC, RNIV, stressed RNIV and a regulatory-prescribed standardized approach for securitizations. The regulatory VaR for capital purposes uses a two-year historical dataset, a ten-day holding period and a 99% confidence level calculated using an expected shortfall approach. This measure is designed to capture risks in the trading book and foreign exchange and commodity risks in the banking book and excludes securitization positions, as these are treated under the securitization approach for regulatory purposes. Stressed VaR replicates the regulatory VaR calculation on the Group's current portfolio over a continuous one-year observation period that reflects a period of significant financial stress for the Group, selected from a longer historical dataset spanning from 2006 to the present. The historical dataset allows for the capturing of a longer history of potential loss events and helps reduce the pro-cyclicality of the minimum capital requirements for market risk. IRC is a regulatory capital charge for default and migration risk on positions in the trading books that may not be captured adequately by the ten-day holding period assumption of regulatory VaR. RNIV captures a variety of risks, such as certain basis risks, higher order risks and cross risks between asset classes, not adequately captured by the VaR model for example due to lack of sufficient historical market data.

Backtesting VaR uses a two-year historical dataset, a one-day holding period and a 99% confidence level calculated using an expected shortfall approach. This measure captures risks in the trading book and includes securitization positions. Backtesting VaR is not a component used for the calculation of regulatory capital but may have an impact through the regulatory capital multiplier if the number of back-testing exceptions exceeds regulatory thresholds.

Assumptions used in our market risk measurement methods for regulatory capital purposes are compliant with the standards published by the BCBS and other international standards for market risk management. We have approval from FINMA, as well as

from other regulators for our subsidiaries, to use our regulatory VaR model in the calculation of market risk capital requirements. Ongoing enhancements to our VaR methodology are subject to regulatory approval or notification depending on their materiality. The model is subject to regular reviews by regulators and the Group's independent Model Risk Management function.

Information required under Pillar 3 of the Basel framework related to market risk is available on our website.

- Refer to "credit-suisse.com/regulatorydisclosures" for further information.
- Refer to "Risk-weighted assets" in Capital management for further information on the use of our regulatory VaR model in the calculation of market risk capital requirements.

VaR assumptions and limitations

The VaR model uses assumptions and estimates that we believe are reasonable, but VaR only quantifies the potential loss on a portfolio based on historical market conditions. The main assumptions and limitations of VaR as a risk measure are:

- VaR relies on historical data to estimate future changes in market conditions. Historical scenarios may not capture all potential future outcomes, particularly where there are significant changes in market conditions, such as increases in volatilities and changes in the correlation of market prices across asset classes;
- VaR provides an estimate of losses at a specified confidence level; the use of an expected shortfall equivalent measure allows all extreme adverse events to be considered in the model;
- VaR is based on either a one-day (for internal risk management, backtesting and disclosure purposes) or a ten-day (for regulatory capital purposes) holding period. This assumes that risks can be either sold or hedged over the holding period, which may not be possible for all types of exposure, particularly during periods of market illiquidity or turbulence; it also assumes that risks will remain in existence over the entire holding period; and
- VaR is calculated using positions held at the end of each business day and does not include intra-day changes in exposures.

To mitigate some of the VaR limitations and estimate losses associated with market movements that are unusually severe or not reflected in the historical observation period, we use other metrics designed for risk management purposes and described above, including stressed VaR, scenario analysis, as included in our stress testing framework, position risk, as included in our economic risk capital, and sensitivity analysis.

For some risk types there can be insufficient historical data for a calculation within the Group's VaR model. This often happens because underlying instruments may have traded only for a limited time. Where we do not have sufficient market data, the VaR calculation relies on market data proxies or extreme parameter moves. Market data proxies are selected to be as close to the underlying instrument as possible. Where neither a suitable market dataset nor a close proxy is available, extreme market moves are used.

We use a risk factor identification process to identify risks for capture. There are two parts to this process. First, the market data dependency approach systematically determines the risk requirements based on data inputs used by front-office pricing models and compares this with the risk types that are captured by the Group's VaR model and the RNIV framework. Second, the product-based approach is a qualitative analysis of product types undertaken in order to identify the risk types that those product types would be exposed to. A comparison is again made with the risk types that are captured in the VaR and RNIV frameworks. This process identifies risks that are not yet captured in the VaR model or the RNIV framework. A plan for including these risks in either framework can then be devised. RNIV is captured in both our regulatory capital and economic risk capital framework.

VaR backtesting

Backtesting is one of the techniques used to assess the accuracy and performance of our VaR model used by the Group for risk management and regulatory capital purposes and serves to highlight areas of potential enhancements. Backtesting is used by regulators to assess the adequacy of the internal model approach-based regulatory capital held by the Group, the calculation of which includes regulatory VaR and stressed VaR.

Backtesting involves comparing the results produced by the VaR model with the hypothetical trading revenues on the trading book. Hypothetical trading revenues are defined in compliance with regulatory requirements and aligned with the VaR model output by excluding (i) non-market elements (such as fees, commissions, cancellations and terminations, net cost of funding and credit-related valuation adjustments) and (ii) gains and losses from intra-day trading. A backtesting exception occurs when a hypothetical trading loss exceeds the daily VaR estimate.

For capital purposes and in line with BIS requirements, FINMA increases the capital multiplier for every regulatory VaR backtesting exception above four in the prior rolling 12-month period, resulting in an incremental market risk capital requirement for the Group. VaR models with less than five backtesting exceptions are considered by regulators to be classified in a defined "green zone". The "green zone" corresponds to backtesting results that do not themselves suggest a problem with the quality or accuracy of a bank's model.

Scenario analysis

Market risk stress testing and scenarios quantify portfolio impacts under stressed market conditions, expressed as a potential loss number, which can be used in conjunction with other metrics such as market risk sensitivities and VaR to manage the Group's exposure to traded market risk. The analysis performed by the market risk scenarios team supports the daily risk management of specific businesses, as well as their understanding of the impact of scenarios run across the Group, either for internal assessments or for regulatory requests. Stress testing is essential for understanding the impact of large market moves and is particularly important for portfolios that hold complex and exotic instruments, where the risk profile is non-linear or where the value of the positions may

be contingent on several factors (known as cross-risks), or on less liquid risk factors such as correlation.

Market risk stress testing is also used to model potential outcomes and capture vulnerabilities of the trading portfolios around specific macroeconomic or geopolitical events. These outcomes are used to guide business activities and develop risk management strategies during such events and are often supported with risk constraints, which limit potential loss given the likelihood of the event, in line with the Group's risk appetite.

Credit, debit and funding valuation adjustments

Credit valuation adjustments (CVA) are modifications to the measurement of the value of derivative assets used to reflect the credit risk of counterparties.

Debit valuation adjustments (DVA) are modifications to the measurement of the value of derivative liabilities used to reflect an entity's own credit risk.

Funding valuation adjustments (FVA) reflect the fair value costs and benefits of funding associated with (i) any under-collateralized portions of a derivative and (ii) the funding of equivalent transferable collateral where the proceeds of any derivative collateralization cannot be sold or repledged.

These adjustments and their impact on revenues are not captured by the VaR framework.

Traded market risk constraints

Our market risk constraints framework encompasses specific constraints on various market risk measures, including VaR and results of scenario analysis and sensitivity analysis at the Group, Bank, divisional, legal entity, branch and business levels. For example, we have controls over consolidated traded market risk exposures as well as concentrations in the portfolio. Risk constraints are cascaded to lower organizational levels within the businesses. Risk limits are binding and any significant increase in risk exposures is escalated in a timely manner. Market risk limit breaches are subject to a formal escalation procedure and the incremental risk associated with the breach must be approved by the responsible risk manager within the Market Risk function, with escalation to senior management if certain thresholds are exceeded. The majority of the market risk limits are monitored on a daily basis. Limits for which the inherent calculation time is longer or for which the risk profile changes less often are monitored less frequently depending on the nature of the limit (weekly or monthly). The business is mandated to remediate market risk limit breaches within three business days upon notification. Remediation actions that take longer than three days are subject to an out-of-policy remediation process with senior management escalation.

Mitigation of traded market risk

Once a transaction has been executed, it is captured as part of our risk monitoring processes and subject to the market risk constraints framework. Specific policies are in place that are intended to ensure that for any new material and/or unusual transactions,

the Market Risk function has been engaged and appropriate approvals are sought. These transactions are reviewed and approved by the Market Risk function so that the risk profile of the portfolio is in line with the risk appetite after execution.

Traded market risk is mitigated using financial securities, derivatives, insurance contracts or other appropriate means.

Governance of traded market risk

Traded market risk is managed and controlled by the Market Risk function, which includes legal entity and divisional chief risk officers, and governed by a comprehensive framework of policies and committees.

Oversight of the Market Risk function is provided by various committees and supervisory reviews at the Group, legal entity and divisional level, covering the related framework, risk appetite, quantitative approaches, evolving risk profile, material new trades and new business activity. The committees are comprised of senior Market Risk personnel. Relevant topics are escalated to senior management.

The governance framework is designed to ensure appropriate oversight of the Group's traded market risk exposures.

Like other models, our VaR model is subject to internal governance including validation by a team of modeling experts that are independent from the model developers. Validation includes identifying and testing the model's assumptions and limitations, investigating its performance through historical and potential future stress events, and testing that the live implementation of the model behaves as intended. We employ a range of different control processes to help ensure that the models used for traded market risk remain appropriate over time. We have established governance to regularly review model performance and approve any new or amended models.

Non-traded market risk

Sources of non-traded market risk

Non-traded market risk primarily relates to asset and liability mismatch exposures in our banking book. Our businesses and Treasury have non-traded portfolios that carry market risks, mainly related to changes in interest rates but also to changes in foreign exchange rates.

We assume interest rate risks through lending and deposit-taking, money market and funding activities, and the deployment of our consolidated equity as well as other activities at the divisional level. Non-maturing products, such as savings accounts, have no contractual maturity date or direct market-linked interest rate and are risk-managed on a pooled basis using replication portfolios on behalf of the business divisions. Replication portfolios transform non-maturing products into a series of fixed-term products that approximate the re-pricing and volume behavior of the pooled client transactions.

Information required under Pillar 3 of the Basel framework related to interest rate risk in the banking book (IRRBB) is available on our website.

- Refer to "[credit-suisse.com/regulatorydisclosures](https://www.credit-suisse.com/regulatorydisclosures)" for further information.

The majority of non-traded foreign exchange risk is associated with our investments in foreign branches, subsidiaries and affiliates denominated in currencies other than the reporting currency of the Group (i.e., Swiss francs) and includes related hedges. This is referred to as "structural foreign exchange risk". The remaining non-traded foreign exchange risk relates to our banking book positions other than from our investments in foreign operations and is managed under the risk appetite framework for traded market risk.

Evaluation and management of non-traded market risk

We monitor IRRBB through established systems, processes and controls. Risk measures are provided to estimate the impact of changes in interest rates both in terms of risk to earnings as well as risk to the economic value of the Group's asset and liability position. For the purpose of this disclosure, IRRBB is measured using sensitivity analysis, which measures the potential change in economic value resulting from specified hypothetical shocks to interest rates. It is not a measure of the potential impact on reported earnings in the current period, since it takes into account accrual accounted positions as well as certain positions that are carried at fair value.

While structural foreign exchange risk is specified and measured in terms of sensitivity to hypothetical foreign currency shocks, it is excluded from regulatory market risk measurement. The sensitivity to hypothetical foreign currency shocks is also used to define our risk appetite constraints. Along with the management of the Group's CET1 ratio sensitivity to moves in foreign exchange rates, we measure and monitor sensitivities for several other key metrics, such as leverage ratios.

Non-traded market risk constraints

Non-traded market risk leverages the market risk constraints framework that encompasses specific constraints on various market risk measures, including VaR and results of scenario analysis and sensitivity analysis at the Group, Bank, divisional, legal entity and business levels, as described above for traded market risk constraints. These are supplemented by additional risk controls for structural foreign exchange risk and IRRBB.

Mitigation of non-traded market risk

The Group's risk appetite level for IRRBB is primarily driven by the available capital and is allocated to the Group's material legal entities. The Group does not have a regulatory requirement to hold capital against IRRBB. The economic impacts of adverse shifts in interest rates from FINMA-defined scenarios are significantly below 15% of tier 1 capital, which is the threshold used by FINMA to identify banks that potentially run excessive levels of interest rate risk at group and legal entity levels.

The Group aims to keep a limited risk profile for the economic value of the Group's asset and liability position while maintaining high earnings stability. This is addressed mainly by systematic hedging of issued debt and interest rate risk arising from loans and deposit maturity mismatches in the private banking business. The main instruments used for hedging are interest rate swaps.

Structural foreign exchange risk is actively managed by Treasury through the execution of currency hedges with the aim of neutralizing the sensitivity of the Group's CET1 ratio to adverse movements in foreign exchange rates within parameters set out in the risk appetite framework.

Governance of non-traded market risk

Non-traded market risk is integrated into the Group's risk appetite framework, including risk constraints under the authority of the Board and the Executive Board. Risk management committees are responsible for the oversight and approval of related risk models, global policies, manuals, guidelines and procedures. Divisional and legal entity risk management committees review non-traded market risk-related matters specific to their local entities and jurisdictions.

Non-financial risk

Definition and sources of non-financial risk

Non-financial risk is the risk of an adverse direct or indirect impact originating from sources outside the financial markets. Non-financial risk is inherent in most aspects of our business, including the systems and processes that support our activities. It comprises a large number of disparate risks that can manifest in a variety of ways. Examples include the risk of damage to physical assets, business disruption, failures relating to data integrity and trade processing, cyber attacks, internal or external fraudulent or unauthorized transactions, inappropriate cross-border activities, money laundering, improper handling of confidential information, conflicts of interest, improper gifts and entertainment and failure in duties to clients.

Non-financial risk can arise from a wide variety of internal and external forces, including human error, inappropriate conduct, failures in systems, processes and controls, pandemic, deliberate attack or natural and man-made disasters. Outsourcing and external third parties may also create risks around maintaining business processes, system stability, data loss, data management, reputation and regulatory compliance. Certain of the present main categories and sources of non-financial risk are described below.

Operational risk

Operational risk is the risk of an adverse impact arising from inadequate or failed internal processes, people or systems, or from external events. Operational risk does not include business and reputational risks; however, some operational risks can lead to reputational issues and as such these risks may be closely linked. Operational risk includes but is not limited to technology risk, cyber risk, legal risk, compliance risk, regulatory risk and conduct risk. In addition, management concluded that our internal control

over financial reporting was not effective as of December 31, 2022.

- Refer to "Controls and procedures" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Technology risk

Technology risk deserves particular attention given the complex technological landscape that covers our business model. Ensuring that confidentiality, integrity and availability of information assets are protected is critical to our operations. Technology risk is the risk that system-related failures, such as service outages or information security incidents, may disrupt business. Technology risk is inherent not only in our IT assets, but also in the people and processes that interact with them including through dependency on third-party suppliers and the worldwide telecommunications infrastructure. We seek to ensure that the data used to support key business processes and reporting is secure, complete, accurate, available, timely and meets appropriate quality and integrity standards. We require our critical IT systems to be identified, secure, resilient and available to support our ongoing operations, decision-making, communications and reporting. Our systems must also have the capabilities, capacity, scalability and adaptability to meet current and future business objectives, the needs of our customers and regulatory and legal expectations. Failure to meet these standards and requirements may result in adverse events that could subject us to reputational damage, fines, litigation, regulatory sanctions, financial losses or loss of market share. Technology risks are managed through our technology risk management program, business continuity management and operational resiliency plans. Technology risks are included as part of our overall non-financial risk assessments based upon a forward-looking approach focusing on the most significant risks in terms of potential impact and likelihood.

Cyber risk

Cyber risk, which can be driven by people, process and/or technology, is the risk that the Group will be compromised as a result of cyber attacks, security breaches, unauthorized access, loss or destruction of data, unavailability of service, computer viruses, employee misconduct or other events that could have an adverse security or resilience impact. Any such event could subject us to litigation or cause us to suffer a financial loss, a disruption of our businesses, liability to our clients, regulatory intervention or reputational damage. We could also be required to expend significant additional resources to investigate and remediate vulnerabilities or other exposures.

We recognize that cyber risk represents a rapidly evolving external risk landscape. The financial industry continues to face cyber threats from a variety of actors who are driven by monetary, political and other motivations. We actively monitor external and internal incidents and threats and assess and respond accordingly, including modifying our protective measures, to any potential vulnerabilities that this may reveal. We are also an active participant in industry forums and information exchange initiatives and engage in regulatory consultation on this subject.

We have an enterprise-wide cybersecurity strategy to provide strategic guidance as part of our efforts to achieve an optimized end-to-end security and risk competence to enable a secure and innovative business environment, aligned with the Group's risk appetite. A technology security team leverages a wide array of leading technology solutions and industry best practices to support our efforts to manage and maintain a secure information infrastructure, perform vulnerability assessments and detect and respond to information security threats.

We regularly assess the effectiveness of key controls and conduct ongoing employee training and awareness activities, including for key management personnel, in order to embed a strong cyber risk culture. As part of the non-financial risk framework (NFRF), risk management committees are given updates on the broader technology risk exposure.

Significant incidents are escalated to the Risk Committee together with key findings and mitigating actions. Related business continuity and response plans are tested.

Legal risk

Legal risk is the risk of loss or imposition of damages, fines, penalties or other liability or any other material adverse impact arising from circumstances including the failure to comply with legal obligations, whether contractual, statutory or otherwise, changes in enforcement practices, the making of a legal challenge or claim against us, our inability to enforce legal rights or the failure to take measures to protect our rights.

Compliance risk

Compliance risk is the risk of legal or regulatory sanctions or financial loss that may result from the failure to comply with applicable laws, regulations, rules or market standards.

Regulatory risk

Regulatory risk is the risk that changes in laws, regulations, rules or market standards may limit our activities and have a negative effect on our business or our ability to implement strategic initiatives, or can result in an increase in operating costs for the business or make our products and services more expensive for clients.

Conduct risk

The Group considers conduct risk to be the risk that improper behavior or judgment by our employees may result in a negative financial, non-financial or reputational impact to our clients, employees or the Group, or negatively impact the integrity of the financial markets. Conduct risk may arise from a wide variety of activities and types of behaviors. A Group-wide definition of conduct risk supports the efforts of our employees to have a common understanding of and consistently manage and mitigate our conduct risk. Further, it promotes standards of responsible conduct and ethics in our employees. Managing conduct risk includes consideration of the risks generated by each business and the strength of the associated mitigating controls. Periodic monitoring

of conduct risk metrics is based on thresholds set by severity level, with material trends identified and escalated as appropriate to senior management. Conduct risk is also assessed by reviewing and learning from past incidents within the Group and at other firms in the financial services sector.

The ongoing focus and investment in a strong risk culture is fundamental to the management of conduct risk. The Group's Code of Conduct provides a clear statement on the behavioral expectations, supported by our cultural values.

- Refer to "Culture" in Risk management oversight and to "Corporate governance framework" in IV – Corporate Governance – Overview for further information on our Code of Conduct.

Evaluation and management of non-financial risks

We aim to maintain the integrity of our business, operations and reputation as a core principle guiding the management and oversight of non-financial risks by ensuring that our day-to-day operations are sustainable and resilient, do not expose us to significant losses and enable our employees to make decisions and conduct business in line with our values and desired reputation as a firm.

Each business area and function is responsible for its risks and the provision of adequate resources and procedures for the management of those risks. They are supported by the designated second line of defense functions responsible for independent risk and compliance oversight, methodologies, tools and reporting within their areas as well as working with management on non-financial risk issues that arise. Businesses and relevant control functions meet regularly to discuss risk issues and identify required actions to mitigate risks.

The Non-Financial Risk function oversees the Group's established NFRF, providing a consistent and unified approach to evaluating and monitoring the Group's non-financial risks. Non-financial risk appetites are established and monitored under the Group-wide risk appetite framework, aligned with the NFRF, which sets common minimum standards across the Group for non-financial risk and control processes and review and challenge activities. Risk and control assessments are in place across all divisions and functions, consisting of the risk and control self-assessments and compliance risk assessments. Key non-financial risks are identified annually and represent the most significant risks requiring senior management attention. Where appropriate, remediation plans are put in place with ownership and ongoing oversight by senior management. In the event of significant internal or external events, risk identification processes are adjusted to assess additional or emerging risk concentrations and related mitigating actions that may be required.

Non-financial risk capital management

Our activities to manage non-financial risk capital include scenario analysis and operational risk regulatory capital measurement, as further described below. In addition, we transfer the risk of potential losses from non-financial risks to third-party insurance companies in certain instances.

Non-financial risk scenario analysis

Non-financial risk scenario analysis is a forward-looking tool that is used to identify and measure exposure to a range of potential adverse events, such as unauthorized trading, transaction processing errors and compliance issues. These scenarios help businesses and functions assess the suitability of controls in light of existing risks and estimate hypothetical but plausible risk exposures. Scenarios are developed to support stressed loss projections and capital calculations in response to requirements set by regulatory agencies in the jurisdictions in which we operate.

Non-financial risk stress loss projections

Operational losses may increase in frequency and magnitude during periods of economic stress and/or market volatility. We estimate the potential operational losses that may be experienced under a range of adverse economic conditions by quantifying historically observed relationships between operational losses and the economy, and through expert consideration of impacts on key non-financial risks. These estimates inform Group-wide stress tests measuring the bank's resilience across a range of economic scenarios.

Non-financial risk regulatory capital measurement

We use internally validated and approved models to calculate our regulatory capital requirements for non-financial risk (also referred to as "operational risk capital") across the Group and for major legal entities. For Group regulatory capital requirements, we apply the advanced measurement approach (AMA), an internal models-based approach to statistically estimate an operational loss distribution using internal and external loss data. Business experts and senior management review and challenge model parameters in light of changes of business environment and internal control factors to ensure that the capital projection reflects a forward-looking view of risk. Deductions are applied to the regulatory capital requirements to account for the mitigating values of insurance policies held by the bank. The regulatory capital requirement represents the 99.9th percentile of the estimated distribution of total operational losses for the Group over a one-year time horizon. A risk-sensitive approach is applied to allocate capital to the businesses.

Governance of non-financial risks

Effective governance processes establish clear roles and responsibilities for managing non-financial risks and define appropriate escalation processes for outcomes that are outside expected levels. We utilize a comprehensive set of policies and procedures that set out how employees are expected to conduct their activities, including clearly defined roles and accountability for each of the three lines of defense to achieve appropriate segregation of duties.

The Non-Financial Risk function is responsible for setting minimum standards for managing non-financial risks at the Group level. This includes ensuring the cohesiveness of policies and procedures, tools and practices throughout the Group, particularly with regard to the identification, evaluation, mitigation, monitoring and reporting of these risks. Other second line of defense oversight functions are responsible for setting supplemental policies and procedures where applicable. The Non-Financial Risk function also oversees the global read-across framework, under which

the Group performs comprehensive reviews of risk events and/or emerging risks to identify underlying root causes, and considers their applicability across other divisions, significant legal entities or corporate functions with the goal of minimizing re-occurrence in a sustainable manner through enhancements of processes and/or key controls to support reduction of relevant residual risks.

Non-financial risk exposures, metrics, issues and remediation efforts are discussed in various risk management committees across the organization. Key, significant and trending non-financial risk themes are discussed in governance forums where appropriate, including risk themes that may emerge due to significant internal or external events and any corresponding tactical or strategic control enhancements that may be required in order to maintain adequate internal controls in response to such events.

Model risk

In line with peer banks, we rely on advanced quantitative models and qualitative estimation approaches across business lines and legal entities to support a broad range of applications, including estimating various forms of financial risk, valuation of securities, stress testing activities, capital adequacy assessments, providing wealth management services to clients and to meet various reporting requirements.

Definition and sources of model risk

Model risk is the risk of adverse consequences from decisions made based on model results that may be incorrect, misinterpreted or used inappropriately. All models and qualitative estimation approaches are imperfect approximations and assumptions that are subject to varying degrees of uncertainty in their output depending on, among other factors, the model's complexity and its intended application. As a result, modeling and estimation errors may result in inappropriate business decisions, financial loss, regulatory and reputational risk and incorrect or inadequate capital reporting. Model errors, intrinsic uncertainty and inappropriate use are the primary contributors to aggregate Group-wide model risk.

Evaluation and management of model risk

Through our global model risk management and governance framework we seek to identify, measure and mitigate significant risks arising from the use of models embedded within our global model ecosystem. Model risks can be managed through a well-designed and robust model risk management framework, encompassing model governance policies and procedures, model validation best practices and actionable model risk reporting.

Robust model risk management is crucial to ensuring that the Group's model risk is assessed and managed leveraging a central inventory that includes all models used by the Group in order to remain within a defined model risk appetite by focusing on identification, measurement and resolution of model limitations. Under the Group's model governance policies, the Model Risk Management function validates and approves models, including new models and material changes to existing models, in compliance with standards established by regulators. Developers, owners

and model supervisors are responsible for identifying, developing, implementing and testing their models. Model supervisors are responsible for ensuring that models are submitted to the Model Risk Management function to be entered into the Group's model inventory and subsequently validated and approved. The Model Risk Management function is structured to be independent from model users, developers and supervisors.

A rigorous validation practice should ensure that models are conceptually sound, appropriately implemented by model owners and developers and functioning as intended. To accomplish this, model risk management deploys a validation team comprising objective, well-informed subject matter experts with the necessary skills and knowledge to apply effective challenge across model types to mitigate model risk.

In line with the Group model governance policies, all models are risk-tiered based on an internal scoring method which combines model complexity, materiality and reliance to assign models into one of four risk tiers. These inherent risk ratings, or tiers, are used to prioritize models, including resource allocations for validations, periodic reviews and ongoing monitoring as well as to inform the depth of validation activities.

Governance of model risk

Governance is an important aspect of model risk management. Model risk reports are presented and discussed at various model review committees to ensure appropriate oversight of model risk issues, observe progress in corresponding remediation actions and initiate any required escalations.

The Model Risk Management function reviews models, reports model limitations to key stakeholders, tracks remediation plans for validation findings and reports on model risk tolerance and metrics to senior management. The Model Risk Management function oversees controls to facilitate a complete and accurate Group-wide model inventory and coordinates semi-annual attestations by the first line of defense with the aim of achieving completeness and accuracy of its model inventory.

Reputational risk

Definition and sources of reputational risk

Reputational risk is the risk that negative perception by our stakeholders, including clients, counterparties, employees, shareholders, regulators and the general public, may adversely impact client acquisition and damage our business relationships with clients and counterparties, affecting staff morale and reducing access to funding sources.

Reputational risk may arise from a variety of sources, including, but not limited to, the nature or purpose of a proposed transaction or service, the identity or activity of a potential client, the regulatory or political climate in which the business will be transacted, significant public attention surrounding the transaction itself or the potential sustainability risks of a transaction. Sustainability risks

have potentially adverse impacts on the environment, on people or society, which may be caused by, contributed to or directly linked to financial service providers, usually through the activities of their clients. These may manifest themselves as reputational risks, but potentially also other risk types such as credit or non-financial risks. Reputational risk may also arise from reputational damage in the aftermath of a non-financial risk incident, such as cyber crime or the failure by employees to meet expected conduct and ethical standards.

Evaluation and management of reputational risk

Reputational risk is included in the Group's risk appetite framework to ensure that risk-taking is aligned with the approved risk appetite. We highly value our reputation and are fully committed to protecting it through a prudent approach to risk-taking and a responsible approach to business. This is achieved through a culture of risk awareness as well as dedicated processes, resources and policies focused on identifying, evaluating, managing and reporting potential reputational risks. This is also achieved by applying the highest standards of personal accountability and ethical conduct as set out in the Group's Code of Conduct and the Group's approach to cultural values and behaviors. Reputational risk potentially arising from proposed business transactions, client activity or joining initiatives or affiliations (including joining third-party groups, providing support to causes, speaking engagements, charitable donations, political donations directly or through sponsorships) is assessed in the reputational risk review process. The Group's global policy on reputational risk requires employees to be conservative when assessing potential reputational impact and, where certain indicators give rise to potential reputational risk, the relevant business proposal or service must be submitted through the reputational risk review process. This involves a submission by an originator (any employee), approval by a business area head or designee, and its subsequent referral for evaluation by a reputational risk approver or by the respective divisional client risk committee. Reputational risk approvers are experienced and high-ranking senior managers, independent of the business divisions with the authority to approve, reject or impose conditions (also in relation to environmental or social matters) on a transaction or the establishment of a client relationship. In cases of particularly complex or cross-divisional transactions, the decision may be escalated to relevant client risk committees.

For transactions with potential sustainability risks, the internal specialist unit Sustainability Risk evaluates the nature of the transaction and Credit Suisse's role, the identity and activities of the client and the regulatory context of its operations, and assesses the environmental and social aspects of the client's operations, products or services. The team determines whether the client's activities are consistent with the relevant industry standards and whether the potential transaction is compatible with Credit Suisse's policies and guidelines for sensitive sectors. The outcome of this analysis is submitted to the responsible business unit and/or entered into the reputational risk review process for evaluation by a reputational risk approver.

Governance of reputational risk

The ExB RMC and client risk committees are the governing bodies responsible for the oversight and active discussion of client, transaction and affiliation risks. At the Board level, the Risk Committee assists the Board in fulfilling its reputational risk oversight responsibilities by reviewing and approving the Group's risk appetite framework as well as assessing the adequacy of the management of reputational and sustainability risks.

In order to inform our stakeholders about how we manage some of the sustainability risks inherent to the banking business, we publish our Sustainability Report, in which we also describe our efforts to conduct our operations in a manner that is environmentally and socially responsible and broadly contributes to society.

- Refer to “credit-suisse.com/sustainabilityreport” for our Sustainability Report.

Climate-related risks

Definition of climate-related risks

Climate-related risks are the potentially adverse direct and indirect impacts on the Group's financial metrics, operations or reputation due to transition or physical effects of climate change.

Climate-related risks are a core element of sustainability risks. Sustainability risks have potentially adverse impacts on the environment, on people or society, which may be caused by, contributed to or directly linked to financial service providers, usually through the activities of their clients. These may manifest themselves as reputational risks, but potentially also other risk types such as credit or non-financial risks.

Sources of climate-related risks

Physical risks can arise from climate and weather-related events (e.g., heatwaves, droughts, floods, storms and sea-level rise) and can potentially result in material financial losses, impairing asset values and the creditworthiness of borrowers. Physical climate-related risks can affect us as an organization either directly, through our physical assets, costs and operations, or indirectly, through our financial relationships with our clients. Direct physical risks of climate change are assessed through the business continuity management program alongside other direct physical risks such as natural disasters. With regard to indirect physical risks, we assess climate-related risks by applying physical models to our portfolios, starting with pilot assessments for certain legal entities.

Transition risks can arise from the process of adjustment toward a low-carbon economy through changes in climate policy, technological developments and disruptive business models, and shifting investor and consumer sentiment.

Evaluation and management of climate-related risks

Climate-related risks are one of the environmental aspects considered as part of Credit Suisse's broader sustainability risk agenda and Credit Suisse recognizes its share of responsibilities in combating climate change by supporting the transition to a low-carbon and climate-resilient economy. As a financial institution,

we are committed to playing our part in addressing this global challenge through our role as a financial intermediary between the economy, the environment and society.

Credit Suisse's climate approach follows three key objectives, which are anchored in our overarching sustainability and climate risk strategy: First, the Group seeks to support its clients' transition to low-carbon and climate-resilient business models by aligning its in-scope corporate lending and investment portfolios to 1.5°C pathways, engaging with clients to understand their financing needs and directing capital toward climate solutions. Second, the Group seeks to achieve its goal of net zero emissions across its own operations and supply chain, and operate its business in an environmentally sustainable manner, and third, the Group is committed to systematically identifying, mitigating and managing potential risks that climate change may pose on its business. In 2022, as part of our climate risk strategy program, we continued to enhance our disclosures incorporating more granular data and portfolio views in connection with the guidelines from the Task-force on Climate-related Financial Disclosures (TCFD).

- Refer to credit-suisse.com/sustainabilityreport for our Sustainability Report and to credit-suisse.com/tcfcd for an extract of disclosures in accordance with TCFD.

Climate-related risk management frameworks and approach to risk management

We have identified sensitive sectors which pose greater environmental and social risks (including impacts to the climate) and have specific policies and guidelines in place, taking into account standards developed by international organizations such as the United Nations, the World Bank or the International Finance Corporation (IFC). These policies and guidelines govern the responsible provision of our financial services to clients within these identified sectors. Our risk management framework incorporates an assessment of whether a transaction or client relationship under review is in line with our sector policies and relevant industry standards and good practice. Consequently, within the reputational risk review process, we evaluate factors such as a company's greenhouse gas footprint or its energy efficiency targets and we assess whether in-scope clients have a plan in place to address climate-related risks.

Climate-related risks are a core element of sustainability risks. The objective of sustainability risk reviews is to identify and prevent adverse impacts on the environment, on people or society through financial services provided for the activities of a bank's clients or prospective clients.

Through our sector policies and guidelines, we have identified business activities and operations that Credit Suisse will not finance. In 2022, we expanded our sector policies to cover the financing of climate-sensitive sectors, including oil sands, deep sea mining, Arctic oil and gas, and palm oil. Also in 2022, Asset Management and Investment Solutions & Sustainability (IS&S) within Wealth Management introduced for selected offerings new policies on Arctic oil and gas and oil sands, effective as of April 2023, as well as a coal phase-out plan by 2030.

In 2022, we further expanded the scope of our client energy transition framework (CETF) to cover the additional sectors of agriculture and petrochemicals. With this, our CETF now covers eight sectors (oil and gas, coal mining, power generation (fossil fuel-based), shipping, aviation, commodities trade finance (fossil fuel-based), agriculture and petrochemicals). The CETF is used to identify priority sectors and includes a methodology to categorize clients that operate in these sectors according to their energy transition readiness. With this approach, we aim to encourage clients to transition along the CETF scale over time and support them through financing and advisory services.

Furthermore, following the net zero trajectory we introduced in 2021 for lending to oil, gas and coal clients, and the Poseidon Principles trajectory for lending to shipping clients, additional Net Zero trajectories have been introduced in 2022 covering lending in the sectors of power generation, automotive, commercial real estate, iron and steel and aluminum. Net zero portfolio trajectories have also been set for Asset Management and discretionary mandates of IS&S within Wealth Management. These net zero frameworks support the management of credit, investment and reputational risks associated to the transition toward a decarbonized economy.

Governance of climate-related risks

Climate change-related responsibilities are included in the Board's Risk Committee charter. Additionally, at the Board level, we have a Sustainability Advisory Committee. At the Executive Board level, the ExB RMC assumes responsibility for the overall climate strategy and is mandated to ensure that the capabilities for the management of relevant long-term risk trends, including climate change, are put in place. Furthermore, key internal policies, both at the Group and legal entity level, have been progressively expanded to incorporate important elements of climate risk management. For complex and high risk client transactions, including clients with business practices associated with material environmental and/or social issues, a comprehensive risk assessment is performed with escalation to relevant client risk committees.

A dedicated Climate Risk function provides specialized capabilities to assess and manage the multifaceted aspects of climate-related risks.

Business risk

Definition and sources of business risk

Business risk is the risk of not achieving our financial goals and ambitions in connection with the Group's strategy and how the business is managed in response to the external operating environment. External factors include both market and economic conditions, as well as shifts in the regulatory environment. Internally, we face risks arising from inappropriate strategic decisions, ineffective implementation of business strategies or an inability to adapt business strategies in response to changes in the operating environment, including in relation to client and competitor behavior.

The Group depends on dividends, distributions and other payments from its subsidiaries and the capital payouts in these subsidiaries might be restricted as a result of regulatory, tax or other constraints. Our businesses are also exposed to a variety of risks that could adversely impact the Group's dividend payments.

Business risk also includes risks associated with the Group's illiquid investments. These investments are defined as investments held in the banking book usually with longer-term time horizons and are not subject to our market risk framework (e.g., VaR measurement). Illiquid investments include private equity, hedge fund and mutual fund seed and co-investments, strategic investments (e.g., joint ventures and minority investments) as well as other investments, such as collateralized loan obligations (CLO) mandated by regulatory risk retention requirements. Trading assets and banking book loans are not covered under the illiquid investment risk framework.

Evaluation and management of business risk

The Group financial plan serves as the basis for the financial goals and ambitions against which the businesses and legal entities are assessed regularly throughout the year. These regular reviews include evaluations of financial performance, capitalization and capital usage, key business risks, overall operating environment and business strategy. This enables management to identify and execute changes to the Group's operations and strategy where needed.

Governance of business risk

Strategic and related financial plans are developed by each division annually and aggregated into a Group financial plan, which is reviewed by the CRO, CFO and CEO before presentation to the full Executive Board and the Board. On a regular basis, the Board and the Executive Board conduct more fundamental in-depth reviews of the Group's strategy and reassess our performance objectives.

- Refer to "Strategy" in I – Information on the company for further information on our revised strategy.

Illiquid investment risk is integrated into the Group's risk appetite framework, including risk constraints under the authority of the Board and Executive Board. The divisional risk management committees and associated sub-committees are responsible for the day-to-day oversight and approval of related risk models, guidelines and procedures.

Fiduciary risk

Definition and sources of fiduciary risk

Fiduciary risk is the risk of financial loss arising when the Group or its employees, acting in a fiduciary capacity as trustee, investment manager or as mandated by law, do not act in the best interest of the client in connection with the provision of advice and/or management of our client's assets including from a product-related market, credit, liquidity, counterparty and non-financial risk perspective.

Evaluation and management of fiduciary risk

With regard to fiduciary risk that relates to discretionary investment-related activities, assessing investment performance and reviewing forward-looking investment risks in our client portfolios and investment funds is central to our investment oversight program. Areas of focus include:

- Measuring and monitoring investment performance of discretionary client portfolios and investment funds and comparing the returns against benchmarks and peer groups to understand level, sources and drivers of the returns.
- Assessing risk measures such as exposure, sensitivities, stress scenarios, expected volatility and liquidity across our portfolios as part of our efforts to manage the assets in line with the clients' expectations and risk tolerance.
- Treating clients with a prudent standard of care, which includes information disclosure, subscriptions and redemptions processes, trade execution and requiring the highest ethical conduct.
- Ensuring discretionary portfolio managers' investment approach is in accordance with prospectus, regulations and client guidelines.
- Monitoring client investment guidelines or investment fund limits. In certain cases, internal limits or guidelines are also established and monitored.

Fiduciary risks from activities other than discretionary investment management, such as the advised portfolios, are managed and monitored in a similar oversight program. This program is actively managed in cooperation with the Compliance function and is based on the suitability framework.

Governance of fiduciary risk

Sound governance is essential for all discretionary management activities including trade execution and the investment process. Our program targets daily, monthly or quarterly monitoring of all portfolio management activities with independent analysis provided to senior management. Formal review meetings are in place as part of our efforts to ensure that investment performance and risks are in line with expectations and adequately supervised.

Pension risk

Definition and sources of pension risk

Pension risk is the financial risk from contractual or other liabilities to which we are exposed as a sponsor of and/or participant in pension plans. It is the risk that we may be required to make unexpected payments or other contributions to a pension plan because of a potential obligation (i.e., underfunding).

We sponsor three types of pension plans:

- defined benefit plans;
- defined contribution plans; and
- our Swiss savings plan.

Pension risk arises from defined benefit plans and the Swiss savings plan, which has elements of a defined benefit plan. Under

these plans, we, as the plan sponsor, bear the potential risk of having to provide additional funding in the event of a plan shortfall whereby the plan liabilities exceed the plan assets. Under defined contribution plans there is no defined benefit at retirement and the employee bears the investment risk; as a result, the plan sponsor is not responsible for a shortfall. The majority of our pension risk derives from the defined benefit plans in Switzerland, the UK and the US.

Sources of risks can be broadly categorized into asset investment risks (e.g., underperformance of bonds, equities and alternative investments) and liability risks, primarily from changes in interest rates, inflation and longevity.

Evaluation and management of pension risk

Pension plan structure

The Group's major pension plans are established as separate entities from the sponsor firm and are governed by trustees who are charged with safeguarding the interests of the plan members pursuant to statutory and regulatory requirements. Risk-taking activity within the Group's pension funds is not typically within the direct control of the sponsor firm. There is however a risk that we, as the plan sponsor, may have a potential obligation to contribute due to underfunding which could have a negative impact on the Group's capital and income before taxes.

Metrics and targets

Pension risk forms an integral part of the Group's risk appetite assessment with internal macro-economic stress scenarios used for Group-wide stress testing. These are incremental to the assessment performed by the trustees and their external advisers.

Within Risk, pension risk is measured and quantified through both our stress testing framework and internal capital metrics used to assess the Group's capital requirements. These measures are intended to assess the potential impact from the revaluation of pension assets and liabilities on the Group's capital metrics and income before taxes.

Governance of pension risk

The overall pension risk framework and governance structure of our pension plans consists of three components:

- Trustees have overall responsibility of the pension plan and act on behalf of the beneficiaries of the plan with additional oversight by actuaries and external consultants. Trustees are responsible for ensuring that the pension plan is run properly and the member benefits are secure.
- Depending on the jurisdiction there is oversight provided by senior management, trustees, actuaries and/or advisors in relation to local funding, investment strategy, plan changes or other actions of the pension fund.
- Risk monitors and reports various metrics and analytics to senior management and regulators (e.g., economic risk capital, severe flight to quality and loss potential analysis).

Risk portfolio analysis

Credit risk

Credit risk overview

Transactions that are exposed to potential losses arising as a result of a borrower or counterparty failing to meet its financial obligations or as a result of deterioration in the credit quality of the borrower or counterparty are subject to credit risk exposure measurement and management.

- Refer to “Note 20 – Financial instruments measured at amortized cost and credit losses” in VI – Consolidated financial statements – Credit Suisse Group for information on credit quality and aging analysis of loans.

For regulatory capital purposes, credit risk comprises several regulatory categories where credit risk measurement and related regulatory capital requirements are subject to different measurement approaches under the Basel framework. Details on regulatory credit risk categories, credit quality indicators and credit risk concentration are available in our disclosures required under Pillar 3 of the Basel framework related to risk, which will be available on our website.

- Refer to “credit-suisse.com/regulatorydisclosures” for further information.

Loans and irrevocable loan commitments

The following table provides an overview of loans and irrevocable loan commitments by division in accordance with accounting principles generally accepted in the US and are not comparable with the regulatory credit risk exposures presented in our disclosures required under Pillar 3 of the Basel framework.

Loans and irrevocable loan commitments

end of	2022	2021
CHF million		
Gross loans	265,599	293,064
Irrevocable loan commitments	112,129	122,559
Total loans and irrevocable loan commitments	377,728	415,623
of which Wealth Management	86,355	113,493
of which Investment Bank	114,885	122,526
of which Swiss Bank	175,240	178,170
of which Asset Management	25	44
of which Corporate Center	1,223	1,390

Divisional metrics reflect where the loans are recorded and managed from a risk management view and do not reflect any revenue sharing arrangements that exist between divisions.

Loans held-for-sale and traded loans

As of December 31, 2022 and 2021, loans held-for-sale included CHF 23 million and CHF 29 million, respectively, of seasoned US subprime residential mortgages from consolidated variable interest entities (VIE). Traded loans included US subprime residential mortgages of CHF 381 million and CHF 278 million as of December 31, 2022 and 2021, respectively.

Loans

The table “Loans” provides an overview of our loans by loan classes, impaired loans, the related allowance for credit losses and selected loan metrics by business division. The carrying values of loans and related allowance for credit losses are presented in accordance with generally accepted accounting standards in the US and are not comparable with the regulatory credit risk exposures presented in our disclosures required under Pillar 3 of the Basel framework.

Compared to December 31, 2021, gross loans decreased CHF 27.5 billion to CHF 265.6 billion as of December 31, 2022, mainly driven by decreases in loans collateralized by securities, commercial and industrial loans, loans to the real estate sector and consumer mortgages. The net decrease of CHF 13.6 billion in loans collateralized by securities mainly reflected a decrease in Wealth Management. The net decrease of CHF 7.1 billion in commercial and industrial loans mainly reflected a decrease in Wealth Management, partially offset by an increase in the Investment Bank. Loans to the real estate sector decreased CHF 3.1 billion, primarily in the Swiss Bank and Wealth Management. Consumer mortgages decreased CHF 3.0 billion, primarily in the Swiss Bank.

On a divisional level, decreases in gross loans of CHF 25.0 billion in Wealth Management and CHF 3.3 billion in the Swiss Bank were partially offset by an increase of CHF 1.1 billion in the Investment Bank.

- Refer to “Note 19 – Loans” and “Note 20 – Financial instruments measured at amortized cost and credit losses” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Loans

end of	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Corporate Center	Credit Suisse
2022 (CHF million)						
Mortgages	12,536	0	94,940	0	8	107,484
Loans collateralized by securities	33,335	1,572	2,699	0	33	37,639
Consumer finance	491	5	5,141	10	54	5,701
Consumer	46,362	1,577	102,780	10	95	150,824
Real estate	4,045	698	20,720	0	0	25,463
Commercial and industrial loans	25,555	8,453	27,437	0	612	62,057
Financial institutions	2,441	15,443	6,627	8	181	24,700
Governments and public institutions	220	1,471	772	0	92	2,555
Corporate & institutional	32,261	26,065	55,556	8	885	114,775
Gross loans	78,623	27,642	158,336	18	980	265,599
of which held at fair value	1,072	5,941	50	0	295	7,358
Net (unearned income) / deferred expenses	(90)	(79)	98	0	0	(71)
Allowance for credit losses ¹	(565)	(239)	(528)	0	(31)	(1,363)
Net loans	77,968	27,324	157,906	18	949	264,165
2021 (CHF million)						
Mortgages	13,042	0	97,478	0	13	110,533
Loans collateralized by securities	46,580	1,819	2,823	0	31	51,253
Consumer finance	476	173	4,346	13	67	5,075
Consumer	60,098	1,992	104,647	13	111	166,861
Real estate	5,508	491	22,522	0	8	28,529
Commercial and industrial loans	33,792	7,042	27,587	0	708	69,129
Financial institutions	3,393	15,458	6,099	11	261	25,222
Governments and public institutions	870	1,571	793	0	89	3,323
Corporate & institutional	43,563	24,562	57,001	11	1,066	126,203
Gross loans	103,661	26,554	161,648	24	1,177	293,064
of which held at fair value	2,075	7,711	62	0	395	10,243
Net (unearned income) / deferred expenses	(110)	(77)	105	0	1	(81)
Allowance for credit losses ¹	(558)	(186)	(524)	0	(29)	(1,297)
Net loans	102,993	26,291	161,229	24	1,149	291,686

Divisional metrics reflect where the loans are recorded and managed from a risk management view and do not reflect any revenue sharing arrangements that exist between divisions.

¹ Allowance for credit losses is only based on loans that are not carried at fair value.

Collateralized loans

The table “Collateralized loans” provides an overview of collateralized loans by division. For consumer loans, the balances reflect the gross carrying value of the loan classes “Mortgages” and “Loans collateralized by securities”, of which a significant majority

are fully collateralized. Consumer finance loans are not included as the majority of these loans are unsecured. For corporate & institutional loans, the balances reflect the value of mortgages and financial and other collateral related to secured loans, considered up to the amount of the related loans.

Collateralized loans

end of	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Corporate Center	Credit Suisse
2022 (CHF million)						
Gross loans	78,623	27,642	158,336	18	980	265,599
Collateralized loans	73,722	21,908	140,265	0	321	236,216
of which consumer ¹	45,871	1,572	97,639	0	41	145,123
of which mortgages	12,536	0	94,940	0	8	107,484
of which loans collateralized by securities	33,335	1,572	2,699	0	33	37,639
of which corporate & institutional ²	27,851	20,336	42,626	0	280	91,093
of which secured by mortgages	3,139	81	31,166	0	0	34,386
of which secured by financial and other collateral	24,712	20,255	11,460	0	280	56,707
2021 (CHF million)						
Gross loans	103,661	26,554	161,648	24	1,177	293,064
Collateralized loans	96,318	20,240	145,511	0	375	262,444
of which consumer ¹	59,622	1,819	100,301	0	44	161,786
of which mortgages	13,042	0	97,478	0	13	110,533
of which loans collateralized by securities	46,580	1,819	2,823	0	31	51,253
of which corporate & institutional ²	36,696	18,421	45,210	0	331	100,658
of which secured by mortgages	3,273	88	33,461	0	0	36,822
of which secured by financial and other collateral	33,423	18,333	11,749	0	331	63,836

Divisional metrics reflect where the loans are recorded and managed from a risk management view and do not reflect any revenue sharing arrangements that exist between divisions.

- 1 Reflects the gross carrying value of the consumer loan classes “Mortgages” and “Loans collateralized by securities”, before allowance for credit losses.
- 2 Reflects the value of mortgages and financial and other collateral related to secured corporate & institutional loans, considered up to the amount of the related loans. Prior period has been revised.

Within consumer loans, mortgages primarily include mortgages on residential real estate such as single family homes, apartments and holiday homes as well as building loans. Mortgages may also include certain loans that are secured by a combination of mortgages or other real estate titles and other collateral including, e.g., securities, cash deposits or life insurance policies. Loans collateralized by securities primarily include lombard loans secured by well-diversified portfolios of securities and share-backed loans.

Within corporate & institutional loans, mortgage collateral primarily includes income-producing commercial and residential real estate held by corporate & institutional clients. Financial and other collateral includes various types of eligible collateral, e.g., securities, cash deposits, financial receivables related to factoring, certain real assets such as ownership titles in ship and aircraft, inventories and commodities, as well as certain non-tangible securities such as licensing agreements or guarantees.

Financial collateral is subject to frequent market valuation depending on the asset class. In the Group’s private banking, corporate and institutional businesses, all collateral values for loans are regularly reviewed according to the Group’s risk management policies and directives, with maximum review periods determined by collateral type, market liquidity and market transparency. For example, traded securities are revalued on a daily basis and property values are appraised over a medium-term horizon generally exceeding one year considering the characteristics of the

property, current developments in the relevant real estate market and the current level of credit exposure to the borrower. If the credit exposure to a borrower has changed significantly, in volatile markets or in times of increasing general market risk, collateral values may be appraised more frequently. Management judgment is applied in assessing whether markets are volatile or general market risk has increased to a degree that warrants a more frequent update of collateral values. Movements in monitored risk metrics that are statistically different compared to historical experience are considered in addition to analysis of externally-provided forecasts, scenario techniques and macroeconomic research. For impaired loans, the fair value of collateral is determined within 90 days of the date the impairment was identified and thereafter regularly revalued by Credit Risk within the impairment review process. In the Group’s investment banking businesses, collateral-dependent loans are appraised on at least an annual basis, or when a loan-relevant event occurs.

As of December 31, 2022, 98% of the aggregate Swiss residential mortgage loan portfolio of CHF 112.6 billion had a loan-to-value (LTV) ratio equal to or lower than 80%. As of December 31, 2021, 98% of the aggregate Swiss residential mortgage loan portfolio of CHF 113.4 billion had an LTV ratio equal to or lower than 80%. For substantially all Swiss residential mortgage loans originated in 2022 and 2021, the average LTV ratio was equal to or lower than 80% at origination. Our LTV ratios are based on the most recent appraised value of the collateral.

Impaired loans

Compared to December 31, 2021, gross impaired loans increased CHF 657 million to CHF 3.4 billion as of December 31, 2022, mainly driven by higher potential problem loans in Wealth Management, the Investment Bank and the Swiss Bank.

In the Investment Bank, gross impaired loans increased CHF 359 million, mainly reflecting impairments in securitizations relating to

aircraft companies. In Wealth Management, gross impaired loans increased CHF 279 million, primarily driven by newly impaired Russia-related positions in corporate lending, export finance as well as aviation and yacht finance. These increases were partially offset by the resolution of several positions and exposure reductions primarily in European mortgages and share-backed lending.

Impaired loans

end of	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Corporate Center	Credit Suisse
2022 (CHF million)						
Non-performing loans	1,011	204	349	0	50	1,614
Non-interest-earning loans	119	0	203	0	27	349
Non-accrual loans	1,130	204	552	0	77	1,963
Restructured loans	347	30	107	0	0	484
Potential problem loans	337	382	258	0	0	977
Other impaired loans	684	412	365	0	0	1,461
Gross impaired loans ¹	1,814 ²	616	917	0	77	3,424
of which loans with a specific allowance	1,528	522	758	0	75	2,883
of which loans without a specific allowance	286	94	159	0	2	541
2021 (CHF million)						
Non-performing loans	1,183	77	361	0	45	1,666
Non-interest-earning loans	59	0	208	0	31	298
Non-accrual loans	1,242	77	569	0	76	1,964
Restructured loans	217	25	125	0	0	367
Potential problem loans	76	155	202	0	3	436
Other impaired loans	293	180	327	0	3	803
Gross impaired loans ¹	1,535 ²	257	896	0	79	2,767
of which loans with a specific allowance	1,267	257	742	0	74	2,340
of which loans without a specific allowance	268	0	154	0	5	427

Divisional metrics reflect where the loans are recorded and managed from a risk management view and do not reflect any revenue sharing arrangements that exist between divisions.

¹ Impaired loans are only based on loans that are not carried at fair value.

² Includes gross impaired loans of CHF 224 million and CHF 84 million as of December 31, 2022 and 2021, respectively, which are mostly secured by guarantees provided by investment-grade export credit agencies.

In March 2020, US federal banking regulators issued the “Inter-agency Statement on Loan Modifications and Reporting for Financial Institutions Working with Customers Affected by the Coronavirus (Revised)” (Interagency Statement). According to the Interagency Statement, short-term modifications made on a good faith basis in response to the COVID-19 crisis to borrowers that were otherwise current prior to the relief being granted would not be considered to be troubled debt restructurings. This includes short-term modifications such as payment deferrals, fee waivers,

repayment term extensions or payment delays that are insignificant. The Interagency Statement was developed in consultation with the Financial Accounting Standards Board (FASB) and the Group applied this guidance until December 31, 2022. The Group had granted short-term modifications to certain borrowers due to the COVID-19 crisis in the form of deferrals of capital and interest payments that were within the scope of this guidance and the loans subject to those deferrals were not reported as troubled debt restructurings in restructured loans.

Allowance for credit losses on loans

Compared to December 31, 2021, the allowance for credit losses increased CHF 66 million to CHF 1.4 billion as of December 31,

2022, primarily reflecting increases in specific provision for expected credit losses, particularly in the Investment Bank.

Allowance for credit losses on loans

end of	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Corporate Center	Credit Suisse
2022 (CHF million)						
Balance at beginning of period ¹	558	186	524	0	29	1,297
of which individually evaluated	355	50	353	0	27	785
of which collectively evaluated	203	136	171	0	2	512
Current-period provision for expected credit losses	75	67	95	0	2	239
of which provisions for interest	38	9	1	0	3	51
Gross write-offs	(61)	(17)	(103)	0	0	(181)
Recoveries	0	2	13	0	0	15
Net write-offs	(61)	(15)	(90)	0	0	(166)
Foreign currency translation impact and other adjustments, net	(7)	1	(1)	0	0	(7)
Balance at end of period ¹	565	239	528	0	31	1,363
of which individually evaluated	370	97	348	0	30	845
of which collectively evaluated	195	142	180	0	1	518

Divisional metrics reflect where the loans are recorded and managed from a risk management view and do not reflect any revenue sharing arrangements that exist between divisions.

¹ Allowance for credit losses is only based on loans that are not carried at fair value.

The following tables provide an overview of changes in impaired loans and related allowance for credit losses by loan portfolio segment.

Gross impaired loans by portfolio segment

	Consumer	Corporate & institutional	Total
2022 (CHF million)			
Balance at beginning of period	1,074	1,693	2,767
New impaired loans	344	1,791	2,135
Increase in existing impaired loans	87	124	211
Reclassifications to non-impaired status	(177)	(126)	(303)
Repayments ¹	(309)	(704)	(1,013)
Liquidation of collateral, insurance or guarantee payments	(49)	(49)	(98)
Sales ²	0	(39)	(39)
Write-offs	(59)	(117)	(176)
Foreign currency translation impact and other adjustments, net	(26)	(34)	(60)
Balance at end of period	885	2,539	3,424

¹ Full or partial principal repayments.

² Includes transfers to loans held-for-sale for intended sales of held-to-maturity loans.

Allowance for credit losses on loans by portfolio segment

	Consumer	Corporate & institutional	Total
2022 (CHF million)			
Balance at beginning of period ¹	357	940	1,297
of which individually evaluated	273	512	785
of which collectively evaluated	84	428	512
Current-period provision for expected credit losses	55	184	239
of which provisions for interest	22	29	51
Gross write-offs	(65)	(116)	(181)
Recoveries	12	3	15
Net write-offs	(53)	(113)	(166)
Foreign currency translation impact and other adjustments, net	0	(7)	(7)
Balance at end of period ¹	359	1,004	1,363
of which individually evaluated	273	572	845
of which collectively evaluated	86	432	518

¹ Allowance for credit losses is only based on loans that are not carried at fair value.

Loan metrics

end of	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Corporate Center	Credit Suisse
2022 (%)						
Non-accrual loans / Gross loans	1.5	0.9	0.3	0.0	11.2	0.8
Gross impaired loans / Gross loans	2.3	2.8	0.6	0.0	11.2	1.3
Allowance for credit losses / Gross loans	0.7	1.1	0.3	0.0	4.5	0.5
Specific allowance for credit losses / Gross impaired loans	20.4	15.7	37.9	—	39.0	24.7
2021 (%)						
Non-accrual loans / Gross loans	1.2	0.4	0.4	0.0	9.7	0.7
Gross impaired loans / Gross loans	1.5	1.4	0.6	0.0	10.1	1.0
Allowance for credit losses / Gross loans	0.5	1.0	0.3	0.0	3.7	0.5
Specific allowance for credit losses / Gross impaired loans	23.1	19.5	39.4	—	34.2	28.4

Divisional metrics reflect where the loans are recorded and managed from a risk management view and do not reflect any revenue sharing arrangements that exist between divisions. Gross loans and gross impaired loans exclude loans carried at fair value and the allowance for credit losses is only based on loans that are not carried at fair value.

Allowance for credit losses on other financial assets

In 2022, the Investment Bank recorded a release of provision for credit losses of CHF 155 million pertaining to an assessment of the future recoverability of receivables related to Archegos. In 2021, the Investment Bank incurred a provision for credit losses of CHF 4,307 million related to the failure by Archegos to meet its margin commitments. On the Group's consolidated balance sheet as of December 31, 2022 and 2021, the related allowance is included in the allowance for credit losses on brokerage receivables of CHF 4,081 million and CHF 4,186 million, respectively.

- Refer to "Risk factors" in I – Information on the company for information on the Archegos matter.
- Refer to "Note 9 – Provision for credit losses" and "Note 20 – Financial instruments measured at amortized cost and credit losses" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Derivatives are either privately negotiated OTC contracts or standard contracts transacted through regulated exchanges. The most frequently used derivative products include interest rate swaps, cross-currency swaps and credit default swaps (CDS), interest rate and foreign exchange options, foreign exchange forward contracts, and foreign exchange and interest rate futures. In addition, the Group enters into total return swaps on specific assets which offer exposure to price performance of securities to clients, offering synthetic financing arrangements as an alternative to on balance sheet financing of physical securities.

The replacement values of derivative instruments correspond to their fair values at the dates of the consolidated balance sheets and arise from transactions for the account of individual customers and for our own account. Positive replacement values (PRV) constitute an asset, while negative replacement values (NRV) constitute a liability. Fair value does not indicate future gains or losses, but rather premiums paid or received for a derivative instrument at inception, if applicable, and unrealized gains and losses from marking to market all derivatives at a particular point in time. The fair values of derivatives are determined using various

Derivative instruments

The Group enters into derivative contracts in the normal course of business for market making, positioning and arbitrage purposes, as well as for our own risk management needs, including mitigation of interest rate, foreign exchange and credit risk.

methodologies, primarily observable market prices where available and, in their absence, observable market

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parameters for instruments with similar characteristics and maturities, net present value analysis or other pricing models as appropriate.

The following table illustrates how credit risk on derivatives receivables is reduced by the use of legally enforceable netting agreements and collateral agreements. Netting agreements allow us to net balances from derivative assets and liabilities transacted with the same counterparty when the netting agreements are legally enforceable. Replacement values are disclosed net of such

agreements in the consolidated balance sheets. Collateral agreements are entered into with certain counterparties based upon the nature of the counterparty and/or the transaction and require the placement of cash or securities with us as collateral for the underlying transaction. The carrying values of derivatives are presented in accordance with generally accepted accounting standards in the US and are not comparable with the derivatives metrics presented in our disclosures required under Pillar 3 of the Basel framework.

Derivative instruments by maturity

end of / due within	2022				2021			
	Less than 1 year	1 to 5 years	More than 5 years	Positive replacement value	Less than 1 year	1 to 5 years	More than 5 years	Positive replacement value
CHF billion								
Interest rate products	4.2	9.8	19.4	33.4	5.0	12.8	31.8	49.6
Foreign exchange products ¹	13.1	6.6	5.9	25.6	11.8	5.5	4.6	21.9
Equity/index-related products	2.2	3.6	0.3	6.1	6.5	5.7	0.4	12.6
Credit derivatives	0.7	1.4	1.1	3.2	0.3	3.1	1.6	5.0
Other products ²	0.3	0.1	0.5	0.9	0.4	0.1	1.0	1.5
OTC derivative instruments	20.5	21.5	27.2	69.2	24.0	27.2	39.4	90.6
Exchange-traded derivative instruments				19.0				23.1
Netting agreements ^{1,3}				(77.1)				(95.9)
Total derivative instruments				11.1				17.8
of which recorded in trading assets				11.1				17.6
of which recorded in other assets				0.0				0.2

¹ Prior period has been revised.

² Primarily precious metals, commodity and energy products.

³ Taking into account legally enforceable netting agreements.

Derivative transactions exposed to credit risk are subject to a credit request and approval process, ongoing credit and counterparty monitoring and a credit quality review process. Counterparty credit risk exposures arising from derivatives are subject to division-specific review and oversight, including the estimation of potential loss and downside risk in stress scenarios. The following table represents the rating split of our credit exposure from derivative instruments.

Derivative instruments by counterparty credit rating

end of	2022	2021
CHF billion		
AAA	1.2	1.1
AA	2.8	4.6
A	1.3	1.5
BBB	2.5	3.8
BB or lower	2.3	4.7
OTC derivative instruments	10.1	15.7
Exchange-traded derivative instruments ¹	1.0	2.1
Total derivative instruments ¹	11.1	17.8

Credit ratings do not reflect the benefit of collateral received.

¹ Taking into account legally enforceable netting agreements.

Derivative instruments are categorized as exposures from trading activities (trading) and those qualifying for hedge accounting (hedging). Trading includes activities relating to market making, positioning and arbitrage. It also includes economic hedges where the Group enters into derivative contracts for its own risk management purposes, but where the contracts do not qualify for hedge accounting under US GAAP. Hedging includes contracts that qualify for hedge accounting under US GAAP, such as fair value hedges, cash flow hedges and net investment hedges.

- Refer to “Note 28 – Offsetting of financial assets and financial liabilities” in VI – Consolidated financial statements – Credit Suisse Group for further information on offsetting of derivatives.
- Refer to “Note 33 – Derivatives and hedging activities” in VI – Consolidated financial statements – Credit Suisse Group for further information on derivatives, including an overview of derivatives by products categorized for trading and hedging purposes.

Forwards and futures

The Group enters into forward purchase and sale contracts for mortgage-backed securities, foreign currencies and commitments to buy or sell commercial and residential mortgages. In addition, we enter into futures contracts on equity-based indices and other financial instruments, as well as options on futures contracts. These contracts are typically entered into to meet the needs of customers, for trading and for hedging purposes.

On forward contracts, the Group is exposed to counterparty credit risk. To mitigate this credit risk, we limit transactions by counterparty, regularly review credit limits and adhere to internally established credit extension policies.

For futures contracts and options on futures contracts, the change in the market value is settled with a clearing broker in cash each day. As a result, our credit risk with the clearing broker is limited to the net positive change in the market value for a single day.

Swaps

Swap agreements consist primarily of interest rate swaps, CDS, currency and equity swaps. The Group enters into swap agreements for trading and risk management purposes. Interest rate swaps are contractual agreements to exchange interest rate payments based on agreed upon notional amounts and maturities. CDS are contractual agreements in which the buyer of the swap pays a periodic fee in return for a contingent payment by the seller of the swap following a credit event of a reference entity. A credit event is commonly defined as bankruptcy, insolvency, receivership, material adverse restructuring of debt, or failure to meet payment obligations when due. Currency swaps are contractual agreements to exchange payments in different currencies based on agreed notional amounts and currency pairs. Equity swaps are contractual agreements to receive the appreciation or depreciation in value based on a specific strike price on an equity instrument in exchange for paying another rate, which is usually based on an index or interest rate movements.

Options

We write options specifically designed to meet the needs of customers and for trading purposes. These written options do not expose us to the credit risk of the customer because, if exercised, we and not our counterparty are obligated to perform. At the beginning of the contract period, we receive a cash premium. During the contract period, we bear the risk of unfavorable changes in the value of the financial instruments underlying the options. To manage this market risk, we purchase or sell cash or

derivative financial instruments. Such purchases and sales may include debt and equity securities, forward and futures contracts, swaps and options.

We also purchase options to meet customer needs, for trading purposes and for hedging purposes. For purchased options, we obtain the right to buy or sell the underlying instrument at a fixed price on or before a specified date. During the contract period, our risk is limited to the premium paid. The underlying instruments for these options typically include fixed income and equity securities, foreign currencies and interest rate instruments or indices. Counterparties to these option contracts are regularly reviewed in order to assess creditworthiness.

Market risk

Traded market risk

Development of traded market risks

The tables entitled “Average one-day, 98% risk management VaR by division” and “One-day, 98% risk management VaR” show our traded market risk exposure, as measured by one-day, 98% risk management VaR in Swiss francs and US dollars. As we measure VaR for internal risk management purposes using the US dollar as the base currency, the VaR figures were translated into Swiss francs using daily foreign exchange translation rates. VaR estimates are computed separately for each risk type and for the whole portfolio. The different risk types are grouped into five categories including interest rate, credit spread, foreign exchange, commodity and equity risks.

Risk management VaR measures the Group’s traded market risk exposure managed under the market risk framework and generally includes the trading book positions and banking book positions held at fair value.

We regularly review our VaR model to ensure that it remains appropriate given evolving market conditions and the composition of our trading portfolio. In 2022, there were no material changes to our VaR methodology.

Average one-day, 98% risk management VaR by division

in	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Corporate Center	Diversification benefit ¹	Credit Suisse
CHF million							
2022	12	41	0	0	4	(10)	47
2021 ²	12	52	0	2	3	(14)	55
USD million							
2022	12	43	0	0	4	(10)	49
2021 ²	13	56	0	2	4	(15)	60

Excludes risks associated with counterparty and own credit exposures. Risk management VaR measures the Group’s risk exposure managed under the market risk framework and generally includes the trading book positions and banking book positions held at fair value.

- 1 Difference between the sum of the standalone VaR for each division and the VaR for the Group.
- 2 The restatement of divisional historical average risk management VaR for the organizational structure effective from January 1, 2022 to December 31, 2022, required certain additional assumptions.

One-day, 98% risk management VaR

in / end of	Interest rate	Credit spread	Foreign exchange	Commodity	Equity	Diversification benefit ¹	Total
CHF million							
2022							
Average	21	37	42	3	40	(96)	47
Minimum	10	30	10	2	16	— ²	38
Maximum	35	49	60	7	68	— ²	59
End of period	28	31	52	2	65	(139)	39
2021							
Average	15	57	31	3	32	(83)	55
Minimum	10	37	20	2	24	— ²	44
Maximum	26	77	38	4	38	— ²	70
End of period	11	37	28	3	32	(66)	45
USD million							
2022							
Average	22	39	44	3	42	(101)	49
Minimum	10	32	10	2	17	— ²	40
Maximum	38	52	60	8	73	— ²	64
End of period	30	34	56	2	71	(151)	42
2021							
Average	17	62	33	3	35	(90)	60
Minimum	11	40	22	2	27	— ²	48
Maximum	29	83	41	5	41	— ²	74
End of period	12	40	30	3	35	(71)	49

Excludes risks associated with counterparty and own credit exposures. Risk management VaR measures the Group's risk exposure managed under the market risk framework and generally includes the trading book positions and banking book positions held at fair value.

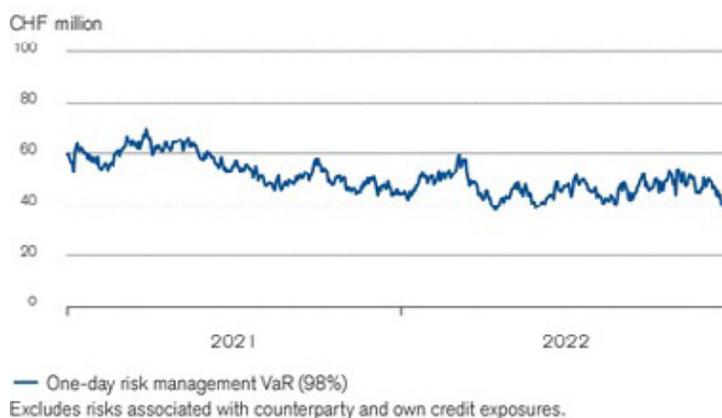
- 1 Diversification benefit represents the reduction in risk that occurs when combining different, not perfectly correlated risk types in the same portfolio and is measured as the difference between the sum of the individual risk types and the risk calculated on the combined portfolio.
- 2 As the maximum and minimum occur on different days for different risk types, it is not meaningful to calculate a portfolio diversification benefit.

We measure VaR in US dollars, as the majority of our trading activities are conducted in US dollars.

Average risk management VaR of USD 49 million in 2022 decreased 18% compared to 2021, primarily reflecting a reduction in securitized products positions in the Investment Bank and COVID-19 pandemic volatility dates moving out of the recent historical data set of the VaR model. The decrease in credit spread risk management VaR was driven by the aforementioned factors. The increase in foreign exchange risk management VaR was driven by positional changes. The increase in interest rate and equity risk management VaR was driven by the inclusion of volatility observed in the second half of 2022 in the data set.

The chart entitled "Daily risk management VaR" shows the aggregated traded market risk on a consolidated basis.

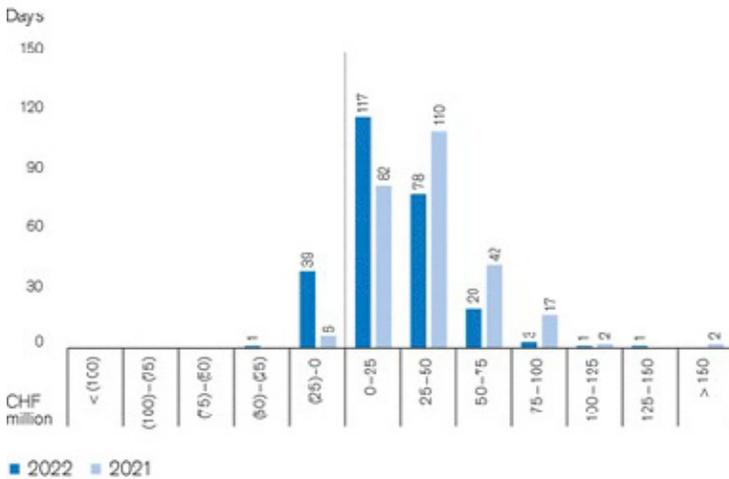
Daily risk management VaR



The histogram entitled "Actual daily trading revenues" compares the actual daily trading revenues for 2022 with those for 2021. Actual daily trading revenues is an internally used metric, limited to the trading book only, and excludes the cost of carry, credit provisions and internal revenue transfers. The cost of carry is the change in value of the portfolio from one day to the next, assuming all other factors such as market levels and trade population

remain constant, and can be negative or positive. The dispersion of trading revenues indicates the day-to-day volatility in our trading activities. In 2022, we had 40 trading loss days compared to six trading loss days in 2021.

Actual daily trading revenues



For capital purposes and in line with BIS requirements, FINMA increases the capital multiplier for every regulatory VaR back-testing exception above four in the prior rolling 12-month period, resulting in an incremental market risk capital requirement for the Group. For the rolling 12-month period through the end of 2022, we had one backtesting exception in our regulatory VaR model, and the model remained in the regulatory “green zone”.

- Refer to “Risk-weighted assets” in Capital management for further information on the use of our regulatory VaR model in the calculation of trading book market risk capital requirements.

Credit, debit and funding valuation adjustments

VaR excludes the impact of changes in both counterparty and our own credit spreads on derivative products. As of December 31, 2022, the estimated sensitivity implies that a one basis point increase in credit spreads, both counterparty and our own, would have resulted in a CHF 0.6 million gain on the overall derivatives position in our trading businesses. In addition, a one basis point increase in our own credit spread on our fair valued structured notes portfolio (including the impact of hedges) would have resulted in a CHF 11.9 million gain as of December 31, 2022. As of December 31, 2022, the estimated FVA sensitivity implies that a one basis point increase in the fair value funding spread would have resulted in a CHF 0.1 million loss on the overall derivatives position in the investment banking businesses.

Non-traded market risk

Development of interest rate risks in the banking book

Interest rate risk on banking book positions is measured by estimating the impact resulting from a one basis point parallel increase in yield curves on the present value of interest rate-sensitive banking book positions. This is measured on the Group’s entire banking book. Interest rate risk sensitivities disclosed below are in line with our internal risk management view.

- Refer to [credit-suisse.com/regulatorydisclosures](https://www.credit-suisse.com/regulatorydisclosures) for the Group’s publication “Pillar 3 and regulatory disclosures 4Q22 – Credit Suisse Group AG” which includes additional information on regulatory interest rate risk in the banking book in accordance with FINMA guidance.

As of December 31, 2022, the interest rate sensitivity of a one basis point parallel increase in yield curves was negative CHF 5.0 million, compared to negative CHF 3.6 million as of December 31, 2021. The change was mainly driven by a duration increase in net interest income hedging activities in addition to regular management of banking book activities.

One basis point parallel increase in yield curves by currency – banking book positions

end of	CHF	USD	EUR	Other	Total
2022 (CHF million)					
Impact on present value	(0.6)	(4.3)	0.0	(0.1)	(5.0)
2021 (CHF million)					
Impact on present value	(0.6)	(3.0)	0.2	(0.2)	(3.6)

Interest rate risk on banking book positions is also assessed using other measures, including the potential value change resulting from a significant change in yield curves. The interest rate scenarios disclosed below are aligned to the FINMA guidance for Pillar 3 disclosures. The table “Interest rate scenario results – banking book positions” shows the impact of the FINMA-defined interest rate scenarios on the net present value of our banking book positions excluding additional tier 1 capital instruments (as per Pillar 3 requirements) and including additional tier 1 capital instruments.

As of December 31, 2022, the most adverse economic impact from these scenarios (including additional tier 1 capital instruments) was a loss of CHF 955 million, compared to a loss of CHF 555 million as of December 31, 2021. The change was mainly driven by a duration increase in net interest income hedging activities in addition to regular management of banking book activities.

Interest rate scenario results – banking book positions

end of	CHF	USD	EUR	Other	Total – Pillar 3 view ¹	Total – Internal view ²
2022 (CHF million)						
Parallel up	(149)	(1,620)	(6)	(7)	(1,782)	(955)
Parallel down	116	1,803	2	2	1,923	999
Steeper shock ³	49	12	27	(12)	76	106
Flattener shock ⁴	(73)	(371)	(30)	12	(462)	(307)
Rise in short-term interest rates	(106)	(1,030)	(31)	6	(1,161)	(677)
Fall in short-term interest rates	102	1,060	27	(12)	1,177	659
2021 (CHF million)						
Parallel up	(114)	(1,515)	38	(8)	(1,599)	(555)
Parallel down	176	1,788	(28)	79	2,015	834
Steeper shock ³	(315)	18	(16)	2	(311)	(224)
Flattener shock ⁴	304	(309)	26	26	47	190
Rise in short-term interest rates	192	(923)	32	27	(672)	(108)
Fall in short-term interest rates	(205)	1,065	(33)	50	877	264

All scenarios are in line with FINMA guidance (FINMA circular 2019/2).

- 1 Excludes additional tier 1 capital instruments in accordance with Pillar 3 requirements.
- 2 Includes additional tier 1 capital instruments in accordance with the Group's risk management view.
- 3 Reflects a fall in short-term interest rates combined with a rise in long-term interest rates.
- 4 Reflects a rise in short-term interest rates combined with a fall in long-term interest rates.

Illiquid investments

The Group's illiquid investment positions, which may not be strongly correlated with general equity markets, are measured using internal SFTQ scenario analysis. It is a key scenario that periodically evolves and is used for Group-wide stress testing and risk appetite setting. It is a combination of market shocks and defaults that reflects conditions similar to what followed

the 2008/2009 financial crisis. The SFTQ scenario assumes a severe crash across financial markets, along with sharply increasing default rates. The estimated impact of the current scenario would have been a decrease of CHF 184 million in the value of the illiquid investment portfolio as of December 31, 2022, compared to a decrease of CHF 200 million as of December 31, 2021.

Balance sheet and off-balance sheet

As of the end of 2022, total assets of CHF 531.4 billion decreased 30% and total liabilities of CHF 486.0 billion decreased 32% compared to the end of 2021, primarily reflecting lower operating activities.

The majority of our transactions are recorded on our balance sheet. However, we also enter into transactions that give rise to both on and off-balance sheet exposure.

Balance sheet

Total assets were CHF 531.4 billion as of the end of 2022, a decrease of CHF 224.5 billion, or 30%, compared to the end of 2021. Excluding the foreign exchange translation impact, total assets decreased CHF 224.7 billion. Cash and due from banks decreased CHF 96.3 billion, or 58%, mainly driven by lower cash positions at the SNB, Bank of Japan and the ECB. Trading assets decreased CHF 45.7 billion, or 41%, primarily reflecting decreases in equity and debt securities and in derivative instruments. Central bank funds sold, securities

purchased under resale agreements and securities borrowing transactions decreased CHF 45.1 billion, or 43%, primarily due to decreases in reverse repurchase transactions from customers and cash collateral. Net loans decreased CHF 27.5 billion, or 9%, mainly driven by decreases in loans collateralized by securities, commercial and industrial loans, loans to the real estate sector and consumer mortgages. Brokerage receivables decreased CHF 2.9 billion, or 17%, mainly reflecting a decrease in margin lending, driven by the impact of resizing the prime services franchise, and lower futures balances, partially offset by an increase in open trades. All other assets decreased CHF 7.0 billion, or 10%, primarily including a decrease of CHF 12.0 billion, or 80%, in securities received as collateral, partially offset by an increase of CHF 5.4 billion, or 13%, in other assets, mainly related to higher loans held-for-sale.

Balance sheet summary

	2022	end of 2021	2020	% change	
				22 / 21	21 / 20
Assets (CHF million)					
Cash and due from banks	68,478	164,818	139,112	(58)	18
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	58,798	103,906	92,276	(43)	13
Trading assets	65,461	111,141	157,338	(41)	(29)
Net loans	264,165	291,686	291,908	(9)	0
Brokerage receivables	13,818	16,687	35,941	(17)	(54)
All other assets	60,638	67,595	102,390	(10)	(34)
Total assets	531,358	755,833	818,965	(30)	(8)
Liabilities and equity (CHF million)					
Due to banks	11,905	18,965	16,423	(37)	15
Customer deposits	233,235	392,819	390,921	(41)	0
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	20,280	35,274	36,994	(43)	(5)
Trading liabilities	18,338	27,535	45,871	(33)	(40)
Long-term debt	157,235	166,896	161,087	(6)	4
Brokerage payables	11,442	13,060	21,653	(12)	(40)
All other liabilities	33,592	57,054	103,075	(41)	(45)
Total liabilities	486,027	711,603	776,024	(32)	(8)
Total shareholders' equity	45,129	43,954	42,677	3	3
Noncontrolling interests	202	276	264	(27)	5
Total equity	45,331	44,230	42,941	2	3
Total liabilities and equity	531,358	755,833	818,965	(30)	(8)

Total liabilities were CHF 486.0 billion as of the end of 2022, a decrease of CHF 225.6 billion, or 32%, compared to the end of 2021. Excluding the foreign exchange translation impact, total liabilities decreased CHF 226.6 billion. Customer deposits decreased CHF 159.6 billion, or 41%, reflecting significantly higher withdrawals of cash deposits as well as non-renewal of maturing time deposits in the fourth quarter of 2022. Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions decreased CHF 15.0 billion, or 43%, mainly reflecting a decrease in cash collateral from customers. Long-term debt decreased CHF 9.7 billion, or 6%, primarily reflecting maturities of senior and subordinated debt and valuation adjustments on senior and subordinated debt, partially offset by issuances of senior and subordinated debt. Trading liabilities decreased CHF 9.2 billion, or 33%, primarily reflecting decreases in short positions and derivative instruments. Due to banks decreased CHF 7.1 billion, or 37%, primarily reflecting a decrease in time deposits, partially offset by an increase in demand deposits. Brokerage payables decreased CHF 1.6 billion, or 12%, primarily due to a decrease in margin lending, partially offset by an increase in open trades. All other liabilities decreased CHF 23.5 billion, or 41%, including a decrease of CHF 12.0 billion, or 80%, in obligation to return securities received as collateral, a decrease of CHF 7.0 billion, or 36%, in short-term borrowings and a decrease of CHF 4.4 billion, or 20%, in other liabilities, mainly related to cash collateral on derivative instruments.

- Refer to “Liquidity and funding management” and “Capital management” for more information, including our funding of the balance sheet and the leverage ratio.

Off-balance sheet

We enter into off-balance sheet arrangements in the normal course of business. Off-balance sheet arrangements are transactions or other contractual arrangements with, or for the benefit of, an entity that is not consolidated. These transactions include derivative instruments, guarantees and similar arrangements, retained or contingent interests in assets transferred to an uncon-solidated entity in connection with our involvement with special purpose entities (SPEs), and obligations and liabilities (including contingent obligations and liabilities) under variable interests in unconsolidated entities that provide financing, liquidity, credit and other support.

Derivative instruments

We enter into derivative contracts in the normal course of business for market making, positioning and arbitrage purposes, as well as for our own risk management needs, including mitigation of interest rate, foreign exchange and credit risk.

- Refer to “Derivative instruments” in Risk management – Risk portfolio analysis – Credit risk and “Note 33 – Derivatives and hedging activities” and “Note 36 – Financial instruments” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Guarantees and similar arrangements

In the ordinary course of business, guarantees and indemnifications are provided that contingently obligate us to make payments to a guaranteed or indemnified party based on changes in an asset, liability or equity security of the guaranteed or indemnified party. We may be contingently obligated to make payments to a guaranteed party based on another entity’s failure to perform, or we may have an indirect guarantee of the indebtedness of others. Guarantees provided include, but are not limited to, customary indemnifications to purchasers in connection with the sale of assets or businesses; to investors in private equity funds sponsored by us regarding potential obligations of their employees to return amounts previously paid as carried interest; and to investors in our securities and other arrangements to provide gross-up payments if there is a withholding or deduction because of a tax assessment or other governmental charge.

In connection with the sale of assets or businesses, we sometimes provide the acquirer with certain indemnification provisions. These indemnification provisions vary by counterparty in scope and duration and depend upon the type of assets or businesses sold. They are designed to transfer the potential risk of certain unquantifiable and unknowable loss contingencies, such as litigation, tax and intellectual property matters, from the acquirer to the seller. We closely monitor all such contractual agreements in order to ensure that indemnification provisions are adequately provided for in our consolidated financial statements.

US GAAP requires disclosure of our maximum potential payment obligations under certain guarantees to the extent that it is possible to estimate them and requires recognition of a liability for the fair value of obligations undertaken for guarantees issued or amended after December 31, 2002.

- Refer to “Note 34 – Guarantees and commitments” in VI – Consolidated financial statements – Credit Suisse Group for disclosure of our estimated maximum payment obligations under certain guarantees and related information.

Representations and warranties on residential mortgage loans sold

In connection with the Investment Bank division’s sale of US residential mortgage loans, we have provided certain representations and warranties relating to the loans sold. We have provided these representations and warranties relating to sales of loans to institutional investors, primarily banks, and non-agency, or private label, securitizations. The loans sold are primarily loans that we have purchased from other parties. The scope of representations and warranties, if any, depends on the transaction, but can include: ownership of the mortgage loans and legal capacity to sell the loans; loan-to-value ratios and other characteristics of the property, the borrower and the loan; validity of the liens securing the loans and absence of delinquent taxes or related liens; conformity to underwriting standards and completeness of documentation; and origination in compliance with law. If it is determined that representations and warranties were breached, we may be required

to repurchase the related loans or indemnify the investors to make them whole for losses. Whether we will incur a loss in connection with repurchases and make whole payments depends on: the extent to which claims are made; the validity of such claims made within the statute of limitations (including the likelihood and ability to enforce claims); whether we can successfully claim against parties that sold loans to us and made representations and warranties to us; the residential real estate market, including the number of defaults; and whether the obligations of the securitization vehicles were guaranteed or insured by third parties.

- Refer to “Representations and warranties on residential mortgage loans sold” in Note 34 – Guarantees and commitments in VI – Consolidated financial statements – Credit Suisse Group for further information.

Involvement with special purpose entities

In the normal course of business, we enter into transactions with, and make use of, SPEs. An SPE is an entity in the form of a trust or other legal structure designed to fulfill a specific limited need of the company that organized it and is generally structured to isolate the SPE’s assets from creditors of other entities, including the Group. The principal uses of SPEs are to assist us and our clients in securitizing financial assets and creating investment products. We also use SPEs for other client-driven activity, such as to facilitate financings, and for Group tax or regulatory purposes.

- Refer to “Note 35 – Transfers of financial assets and variable interest entities” in VI – Consolidated financial statements – Credit Suisse Group for further information.

From time to time, we may issue subordinated and senior securities through SPEs that lend the proceeds to Group entities.

Contractual obligations and other commercial commitments

In connection with our operating activities, we enter into certain contractual obligations and commitments to fund certain assets. Our contractual obligations and commitments include short and long-term on-balance sheet obligations as well as future contractual interest payments and off-balance sheet obligations. Total obligations decreased CHF 194.4 billion in 2022 to CHF 451.0 billion, primarily reflecting decreases in customer deposits of CHF 159.6 billion to CHF 233.2 billion, in long-term debt of CHF 9.7 billion to CHF 157.2 billion, in trading liabilities of CHF 9.2 billion to CHF 18.3 billion, in due to banks of CHF 7.1 billion to CHF 11.9 billion, in short-term borrowings of CHF 7.0 billion to CHF 12.4 billion and in brokerage payables of CHF 1.6 billion to CHF 11.4 billion.

- Refer to “Note 24 – Leases”, “Note 26 – Long-term debt” and “Note 34 – Guarantees and commitments” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Contractual obligations and other commercial commitments

	2022				2021	
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years	Total	Total
<u>Payments due within</u>						
On- and off-balance sheet obligations (CHF million)						
Due to banks	11,905	0	0	0	11,905	18,965
Customer deposits	230,396	2,512	108	219	233,235	392,819
Short-term borrowings	12,414	0	0	0	12,414	19,393
Long-term debt ¹	28,154	44,486	32,198	52,397	157,235 ²	166,896 ²
Contractual interest payments ^{3, 4}	808	376	192	708	2,084 ⁵	1,904
Trading liabilities	18,338	0	0	0	18,338	27,535
Brokerage payables	11,442	0	0	0	11,442	13,060
Operating lease obligations	372	611	517	1,284	2,784	3,004
Purchase obligations ^{3, 6}	942	423	159	24	1,548	1,794
Total obligations ⁷	314,771	48,408	33,174	54,632	450,985	645,370

- Refer to “Debt issuances and redemptions” in Liquidity and funding management – Funding management and “Note 26 – Long-term debt” in VI – Consolidated financial statements – Credit Suisse Group for further information on long-term debt.
- Included non-recourse liabilities from consolidated VIEs of CHF 2,096 million and CHF 1,391 million as of December 31, 2022 and 2021, respectively.
- These obligations are excluded from “Other commitments” in Note 34 – Guarantees and commitments in VI – Consolidated financial statements – Credit Suisse Group.
- Includes interest payments on fixed rate long-term debt, fixed rate interest-bearing deposits (excluding demand deposits) and fixed rate short-term borrowings, which have not been effectively converted to variable rate on an individual instrument level through the use of swaps.
- Due to the non-determinable nature of interest payments, the following notional amounts have been excluded from the table: variable rate long-term debt of CHF 68,362 million, variable rate short-term borrowings of CHF 12,229 million, variable rate interest-bearing deposits and demand deposits of CHF 106,226 million, fixed rate long-term debt and fixed rate interest-bearing deposits converted to variable rate on an individual instrument level through the use of swaps of CHF 96,423 million and CHF 63 million, respectively.
- Purchase obligations include contractual obligations for certain professional services, occupancy, IT and other administrative expenses.
- Excluded total accrued benefit liability for pension and other post-retirement benefit plans of CHF 259 million and CHF 344 million as of December 31, 2022 and 2021, respectively, recorded in other liabilities in the consolidated balance sheets, as the accrued liability does not represent expected liquidity needs. Refer to “Note 32 – Pension and other post-retirement benefits” in VI – Consolidated financial statements – Credit Suisse Group for further information on pension and other post-retirement benefits.

IV – Corporate Governance

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Corporate Governance

2022 represented an additional year of significant change for the Group's corporate governance, with the election of a new Chairman, the appointment of a new CEO and the announcement of further organizational changes in line with our new strategy.

Overview

The Group's corporate governance reflects our commitment to safeguard the interests of our stakeholders. Our corporate governance complies with internationally accepted standards, and we recognize the importance of good corporate governance. We know that transparent disclosure of our governance helps stakeholders assess the quality of the Group's corporate governance and assists investors in their investment decisions.

Corporate Governance developments

The key corporate governance developments for the Group in 2022 and early 2023 included the following:

Board of Directors

- Axel Lehmann was elected as Chairman of the Board of Directors (Chairman) at the Annual General Meeting (AGM) on April 29, 2022. Axel Lehmann was initially appointed as Chairman by the Board of Directors (Board) with effect from January 16, 2022, succeeding António Horta-Osório, who resigned from the Board;
- Three new Board members, Mirko Bianchi, Keyu Jin and Amanda Norton, were elected at the 2022 AGM, ensuring that the Board continues to have strong expertise in the areas of finance and risk management and with respect to Asian markets, particularly China, which are important growth areas for the Group; Mirko Bianchi was subsequently appointed Chair of the Audit Committee;
- Long-standing Board members Severin Schwan and Kai Nargolwala did not stand for re-election at the 2022 AGM, nor did Juan Colombas, who had been elected to the Board in October 2021;
- Several leadership changes within the Board have been implemented, including the appointment of Christian Gellerstad as Vice-Chair and Lead Independent Director (former Vice-Chair and Lead Independent Director: Severin Schwan), and Chair of the Compensation Committee (former Chair: Kai Nargolwala), as well as the appointments of Clare Brady as Chair of the Conduct and Financial Crime Control Committee (former Chair: Christian Gellerstad), Richard Meddings as Chair of the Risk Committee (former Chair: Axel Lehmann) and a refreshed composition of the Governance and Nominations Committee; and
- Michael Klein stepped down from the Board and the Compensation Committee on October 27, 2022 in the context of the restructuring of the Group's Investment Bank. It was subsequently announced on February 9, 2023 that, subject to regulatory approval, Michael Klein will join the Executive Board

Remediation Committee (SRRC) at the Executive Board level, chaired by the CRO;

as CEO of Banking, regional CEO of Americas and CEO designate of CS First Boston and that the Group will acquire The Klein Group LLC, a New York-based investment banking boutique and registered broker-dealer, which will be integrated into CS First Boston.

Executive Board

- Ulrich Körner, who was serving as the CEO of the Asset Management division, was appointed Group CEO by the Board, effective August 1, 2022, succeeding Thomas Gottstein;
- The Board appointed the following new Executive Board members: Francesco De Ferrari as CEO Wealth Management, effective January 1, 2022, and regional CEO of Europe Middle East and Africa (EMEA), effective August 21, 2022 (after serving in this role on an ad interim basis since January 2022); Joanne Hannaford as Chief Technology & Operations Officer (CTOO) and David Wildermuth as Chief Risk Officer (CRO), both effective January 1, 2022; Christine Graeff as Global Head of People, effective February 1, 2022; Edwin Low as regional CEO of Asia Pacific (APAC), effective June 1, 2022; Markus Diethelm as General Counsel (GC), effective June 15, 2022; Francesca McDonagh as Chief Operating Officer (COO), effective September 19, 2022; Dixit Joshi as Chief Financial Officer (CFO), effective October 1, 2022; and Nita Patel as Chief Compliance Officer (CCO), effective November 1, 2022;
- Individuals who stepped down from the Executive Board during 2022 were Antoinette Poschung, former Global Head of Human Resources; Helman Sitohang, former regional CEO of APAC; Romeo Cerutti, former GC; Thomas Gottstein, former CEO; David Mathers, former CFO; Christian Meissner, former CEO Investment Bank and regional CEO of Americas; and Rafael Lopez Lorenzo, former CCO; and
- The appointment of former Board member Michael Klein to the Executive Board, subject to regulatory approval.

Organizational structure

- Changes to the Group's organizational structure were implemented in 2022 following the review of the Group's strategy by the Board during 2021: effective January 1, 2022, the Group was organized into four divisions – Wealth Management, Investment Bank, the Swiss Bank and Asset Management – and four geographic regions – Switzerland, EMEA, APAC and Americas;
- A new Strategic Regulatory Remediation program was launched in the second quarter of 2022, which is intended to strengthen our organization and deliver on regulatory programs. The program is overseen by the Strategic Regulatory

- Following the appointment of Ulrich Körner as the new Group CEO announced in July 2022, a new Group COO function was established and Francesca McDonagh was appointed to this role. The COO supports the CEO in the steering and strategic development of the Group and has responsibility for leading operational and cost transformation, as well as enterprise architecture development, including focusing on organizational design and bank-wide efficiencies;
- Further changes to the Group’s organizational structure were announced in October 2022 after the conclusion of a comprehensive strategic review conducted in the second half of 2022 and the resulting decision by the Board to radically restructure the Investment Bank. Key changes included the carve-out of CS First Boston as a capital markets and advisory business, and the creation of a Capital Release Unit (CRU). The CRU comprises the remaining part of the Group’s Securitized Products Group (SPG) business and a Non-Core Unit (NCU), which has the purpose of releasing capital through the wind-down of non-strategic, low return and higher-risk businesses. The CRU became effective on January 1, 2023; and
- A Group-wide review of our organizational set-up was initiated to reduce layers and duplication across divisions and functions, which is currently in progress and, once completed, is expected to support a more effective and less complex organizational design.

Shareholder meetings

- At the AGM on April 29, 2022, shareholders rejected two proposals put forward by shareholders: one for a special audit into the supply chain finance funds (SCFF) and “Suisse Secrets” matters and the other on a change in the Articles of Association (AoA) relating to the Group’s climate strategy and disclosures. In connection with the second matter, the Board proposed to submit the Group’s climate strategy as outlined in the Strategy chapter of the 2022 Task Force on Climate-related Financial Disclosures (TCFD) report, which forms part of the Group’s Sustainability Report, for acceptance by shareholders in a consultative vote at the 2023 AGM; and
- At an Extraordinary General Meeting (EGM) on November 23, 2022, shareholders approved two capital increases with aggregate gross proceeds amounting to CHF 4 billion.

Regulatory developments

We regularly monitor developments in corporate governance guidelines, regulations and best practice standards in all jurisdictions relevant to our business operations.

On June 19, 2020, the Swiss Parliament adopted a revision of the Swiss corporate law (Corporate Law Reform), which entered into force on January 1, 2023 (subject to certain transitional provisions). Key changes relate to the improvement of the protection of rights of small shareholders, modernization of the provisions governing shareholders’ meetings, for example, by allowing shareholders’ meetings to take place in a virtual or hybrid meeting format, increased flexibility regarding changes in share capital through the

introduction of a capital range and the strengthening of corporate governance through, for example, embedding the rules formerly covered in the Compensation Ordinance that apply to listed companies into the new Swiss corporate law. As a result of the Corporate Law Reform, Swiss corporations are obliged to amend their articles of association within two years to comply with the revised law. Therefore, the Board of the Group proposes to revise the AoA at the 2023 AGM in line with the revised law and prevailing market standards in Switzerland.

The Corporate Law Reform stipulates “comply or explain” disclosure obligations on gender diversity on the board of directors and executive board of listed companies of at least 30% and 20%, respectively, effective as of January 1, 2021, with ongoing transitional periods before the obligations begin to apply. Credit Suisse already meets the gender requirements for our Board and Executive Board as of December 31, 2022, by having 58% female Board members and 36% female Executive Board members, respectively.

Furthermore, on January 1, 2022, the Swiss Parliament’s counterproposal to the rejected Swiss Responsible Business Initiative entered into force by way of an amendment to the Swiss Code of Obligations and the enactment of a corresponding implementing ordinance. It is based on corresponding EU rules and requires companies of public interest to report annually on certain non-financial matters, including the impact the company’s activity has on environmental, social and governance (ESG) matters. The first report on non-financial matters is due for the 2023 financial year; the first shareholder vote on such report is expected to take place at the 2024 AGM.

Governance of crisis management

A crisis is an event that requires critical decisions which cannot be resolved with ordinary management techniques and decision-making authority. Credit Suisse has a Crisis Management Framework (CMF) and robust governance processes in place to enable the effective management of crises. The CMF is a bank-wide approach to crisis management addressing global, regional, location and function levels and provides a pre-defined and documented process to enable Credit Suisse to manage situations or events that have the propensity to become a crisis. It includes the definition of the global Crisis Assessment Team, the global Crisis Management Team (CMT), the crisis management process, roles and responsibilities. The Crisis Assessment Team has the responsibility of assessing the damage or impact or potential impact of an incident, crisis or disaster. It is assigned the task of recommending the invocation of the corresponding CMT. The CMT is the group responsible for overall decision making and coordination of Credit Suisse’s response to a crisis in a timely manner.

The Crisis Assessment Team assesses the impact of a specific crisis event to the firm on a global level and provides recommendations for final decisions to the CMT, whose members include all members of the Executive Board. In the case of a specific crisis event, firm-wide business continuity management response

measures are triggered where appropriate and overseen by the Executive Board. At the Board level, oversight of business continuity management is within the responsibility of the Risk Committee. In any given crisis event, the Board may delegate certain responsibilities to a sub-committee of its members that is authorized to take actions that exceed the mandate of the Executive Board, when decisions are needed in too short a time frame to convene the full Board. Adequate reporting of a crisis to regulators as necessary is part of the CMT process.

In February 2022, the Crisis Assessment Team was invoked due to Russia's invasion of Ukraine. Key priorities in this respect included taking measures to protect the safety and security of impacted employees, assessing and implementing different sanctions imposed by various governments, close monitoring of potential business interruptions and increased cyber threats. The Crisis Assessment Team stood down in September 2022 and business as usual procedures were resumed. In addition, an EMEA Russia Taskforce was established in March 2022 to coordinate divisional and functional Bank-wide activities.

During 2022, Credit Suisse convened an Energy Shortages Taskforce to proactively plan for potential energy supply shortages across continental Europe. Heightened preparations focused on ensuring resilience measures were in place to continue delivering critical services. Measures included reducing building energy consumption, securing backup fuel supplies and determining alternative business strategies should local Credit Suisse locations and work-from-home options be unavailable. No disruptions have been experienced to date and the Energy Shortages Taskforce continues to monitor the situation and to prepare for future occurrences.

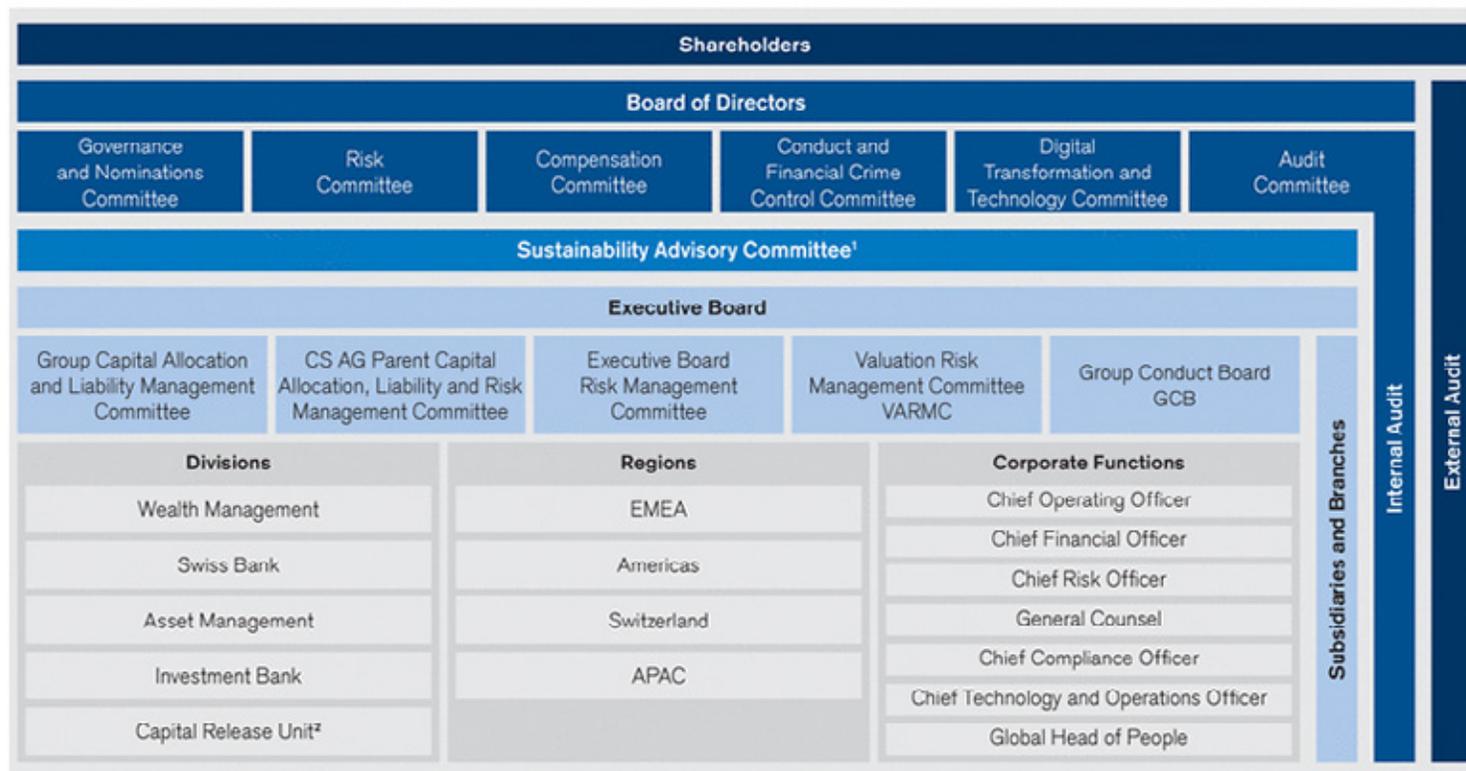
In early 2022, the Board retired the dedicated tactical crisis committee originally established in 2021 for oversight of the Archegos Capital Management (Archegos) and SCFF matters, which later also served for the oversight of a comprehensive Group-wide risk review initiated by the former Chairman and in line with the expectations of the Swiss Financial Market Supervisory Authority FINMA (FINMA). The tactical crisis committee was retired after determining how to implement continued oversight and by handing over the topics and initiatives that required ongoing monitoring to the relevant governance bodies at the Executive Board and/or Board level.

Corporate Governance Framework

The Group's Corporate Governance Framework consists of its governing bodies and its corporate governance policies and procedures, which define the competencies of the governing bodies and other corporate governance rules, as well as the practices to be followed throughout the Group, in line with Swiss corporate law and international best practice standards for corporate governance. The governing bodies of the Group are:

- the General Meeting of Shareholders;
- the Board of Directors;
- the Executive Board; and
- the external auditors.

Corporate Governance Framework as of January 1, 2023



1 Interdisciplinary advisory body formed by the Board, which consists of members of the Board and senior management.

2 The Capital Release Unit is managed by the CFO but shown as a separate reporting unit for external reporting purposes.

The shareholders elect the members of the Board and the external auditors on an annual basis and approve required resolutions at the AGM, such as the consolidated financial statements, capital increases and Board and Executive Board compensation. The Board is responsible for the overall strategic direction, supervision and control of the Group and appoints the members of the Executive Board. The Executive Board is responsible for the day-to-day operational management of the Group's business and for developing and implementing business plans.

The Group is engaged in the banking business. Effective January 1, 2023, reflecting the strategic announcement on October 27, 2022, the Group is organized into five divisions – Wealth Management, Swiss Bank, Asset Management, Investment Bank and the new CRU.

The global divisions are complemented by the regions to drive cross-divisional collaboration and strengthen legal entity management oversight and regulatory relationships at a regionally aligned level. The Group's banking business is carried out through its legal entities, which are operational in various jurisdictions and subject to the governance rules and supervision of the regulators in those jurisdictions. The Group has identified certain major subsidiary companies, which, in aggregate, account for a significant proportion of the Group's business operations.

These major subsidiaries, which are all subsidiaries of Credit Suisse AG, are: Credit Suisse (Schweiz) AG, Credit Suisse Holdings (USA) Inc. and Credit Suisse International. Corporate governance at these major subsidiaries is closely aligned with the Group's corporate

governance, for example, through the appointment of at least one Board member to the boards of each of these major subsidiaries. In accordance with Swiss banking law, the major subsidiaries are subject to consolidated supervision at the level of the Group and the Bank.

The strategy review, announced in October 2022, has resulted in changes to the Investment Bank business, which is conducted out of several subsidiaries, including Credit Suisse Holdings (USA) Inc. and Credit Suisse International. Consistent with our objective to streamline and optimize our legal entity structure in the context of the Group's strategy, Credit Suisse is conducting a review of the legal entity strategy across regions. The legal entity strategy review will assess the impact on existing legal entities across regions to ensure the legal entity footprint will be adjusted to accommodate changes in the size and scope of the investment banking business. Efforts to optimize the legal entity structure across regions, including the closure of redundant entities, will continue to be a priority. The Group anticipates continued simplification of the global legal entity structure, in line with the new business strategy, which is expected to drive financial efficiency for the Group. Additionally, to facilitate the future separation of the businesses transferring to CS First Boston, an assessment of the requirements is underway to set up the optimal legal entity structure (subject to regulatory approval) across key markets. Any changes to the legal entity structure will continue to align to Group standards of governance and comply with local regulatory requirements.

- Refer to "Strategy" in I – Information on the company for further information.

The Group's corporate governance framework is depicted in the chart above. The duties and responsibilities of the governing bodies are described in further detail in the sections below.

Corporate governance policies

The Group's corporate governance policies and procedures, adopted by the Board, are defined in a series of documents, including the following, which are available on our website at credit-suisse.com/governance:

Document	Description	Website
Articles of Association (AoA)	<ul style="list-style-type: none"> • Defines the purpose of the business, the capital structure and the basic organizational framework. • The AoA of Credit Suisse Group AG (Group) are dated December 7, 2022, and the AoA of Credit Suisse AG (Bank) are dated September 4, 2014. 	credit-suisse.com/articles
Code of Conduct	<ul style="list-style-type: none"> • Defines the Group's purpose, cultural values and behaviors that members of the Board and all employees are required to follow, including adherence to all relevant laws, regulations and policies, in order to maintain and strengthen our reputation for integrity, fair dealing and measured risk taking. • The Credit Suisse Code of Conduct is available in four languages. 	credit-suisse.com/code
Organizational Guidelines and Regulations (OGR)	<ul style="list-style-type: none"> • Defines the organizational structure of the Group and the responsibilities and sphere of authority of the Board, its committees and the various senior management bodies within the Group, as well as the relevant reporting procedures. 	credit-suisse.com/ogr
Board charter	<ul style="list-style-type: none"> • Outlines the organization and responsibilities of the Board. 	credit-suisse.com/boardcharter
Board committee charters	<ul style="list-style-type: none"> • Defines the organization and responsibilities of the committees. 	credit-suisse.com/committeecharter

- Compensation policy**
- Provides a foundation for the development of sound compensation plans and practices.
 - The Compensation policy is updated on an annual basis.

[credit-suisse.com/compensation policy](https://www.credit-suisse.com/compensation-policy)

The Board intends to propose amendments to the Group’s AoA for approval by shareholders at the 2023 AGM to adapt to the provisions of the Corporate Law Reform. The amendments include a change to the Group’s purpose to reflect the Group’s ambition to create long-term, sustainable value, an alignment of provisions related to share capital, shareholders’ voting rights, shareholders’ right to raise AGM agenda items or motions, the introduction of a capital range, which allows the Board to increase or decrease the share capital within pre-defined upper and lower limits and replaces the provision related to authorized capital, additional flexibility to hold shareholders’ general meetings in either a hybrid or virtual format, and the adoption of the compensation rules formerly covered in the Compensation Ordinance. The proposed amendments are published on our website along with the 2023 AGM agenda: credit-suisse.com/ags.

The summaries herein of the material provisions of our AoA and the Swiss Code of Obligations do not purport to be complete and are qualified in their entirety by reference to the AoA and the Swiss Code of Obligations.

Company details

	<u>Group</u>	<u>Bank</u>
Legal name	Credit Suisse Group AG	Credit Suisse AG
Business purpose	Operates as a holding company	Operates as a bank company
Registration details	Commercial register of the Canton of Zurich as of March 3, 1982; No. CHE-105.884.494	Commercial register of the Canton of Zurich as of April 27, 1883; No. CHE-106.831.974
Date incorporated, with unlimited duration	March 3, 1982	July 5, 1856
Registered office	Paradeplatz 8 8001 Zurich Switzerland	Paradeplatz 8 8001 Zurich Switzerland
Equity listing	SIX Swiss Exchange ISIN: CH0012138530 NYSE in the form of ADS ISIN: US2254011081	—
Authorized representative in the US	Credit Suisse (USA), Inc., 11 Madison Avenue, New York, New York, 10010	Credit Suisse (USA), Inc., 11 Madison Avenue, New York, New York, 10010

Credit Suisse Group AG and Credit Suisse AG are registered companies in Switzerland. The Group’s shares are listed on the SIX Swiss Exchange and – in the form of American Depositary Shares (ADS), as evidenced by American Depositary Receipts – on the New York Stock Exchange (NYSE). The business purpose of the Group, as set forth in Article 2 of its AoA, is to hold direct or indirect interests in all types of businesses in Switzerland and abroad, in particular in the areas of banking, finance, asset management and insurance. The business purpose of the Bank, as set forth in Article 2 of its AoA, is to operate as a bank, with all

related banking, finance, consultancy, service and trading activities in Switzerland and abroad. The AoA of the Group and the Bank set forth their powers to establish new businesses, acquire a majority or minority interest in existing businesses and provide related financing as well as acquire, mortgage and sell real estate properties both in Switzerland and abroad.

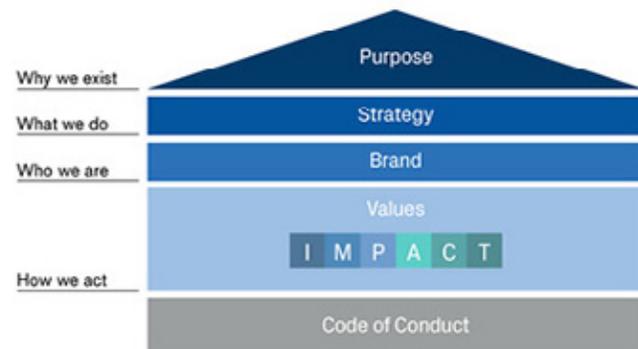
- Refer to “II – Operating and financial review” for a detailed review of our operating results.
- Refer to “Note 41 – Significant subsidiaries and equity method investments” in VI – Consolidated financial statements – Credit Suisse Group for a list of significant subsidiaries and associated entities.

Purpose and values

At Credit Suisse, we believe that we have an important role to play in society and in supporting our communities. As a bank, we provide capital, manage and protect wealth, participate in markets and facilitate infrastructure development. This allows us to contribute to sustainable economic growth. Our purpose is at the core of everything we do. It captures for us, for our clients and for other stakeholders “why” Credit Suisse exists as an organization. Our purpose statement is an integral part of the Group’s Code of Conduct. The document “The Credit Suisse Code of Conduct: Our Purpose and Values” reflects our purpose statement and emphasizes our six cultural values of inclusion, meritocracy, partnership, accountability, client focus and trust (IMPACT) and the underlying behaviors that we expect all of our employees and members of the Board to observe. In early 2023, the Code of Conduct was reviewed as part of an annual review. The revised Code of Conduct reinforces our commitment to complying with all applicable laws, regulations and policies in order to safeguard our reputation for integrity, fair dealing and measured risk taking and includes clear guidelines for the escalation of concerns by employees, including concerns regarding the CEO, members of the Executive Board and senior financial officers. The purpose and values framework is shown in the illustration below.

- Refer to credit-suisse.com/code for our Code of Conduct.

Credit Suisse Purpose and Values



Sustainability and Environmental, Social and Governance

Sustainability is an integral part of our value proposition for our clients, shareholders, employees and other stakeholders. Credit Suisse regularly engages with these stakeholders, including shareholders, to align our sustainability strategy, short- to mid-term goals and implementation status with stakeholder expectations. We strive to comply with the cultural values set out in our Code of Conduct in every aspect of our work, including in our relationships with diverse stakeholders. We do so based on a broad understanding of our duties as a financial services provider and employer and as an integral part of the economy, society and the environment. As a global financial institution, we can support our clients in encouraging sustainable production and consumption practices, enabling diversity, equity and inclusion, channeling capital flows toward sustainable finance and encouraging the continued shift toward sustainable and impact investment.

The Group's Sustainability Report continues to reflect the Global Reporting Initiative (GRI) Standards for sustainability reporting and the Sustainability Accounting Standards Board (SASB) Standards while also providing information on the progress we have made in implementing the Principles for Responsible Banking and the Ten Principles of the UN Global Compact, including the measures we have put in place to contribute to the realization of the UN Sustainable Development Goals. As in previous years, we plan to submit our Sustainability Report 2022 to the SIX Swiss Exchange in accordance with the opting-in regulation for companies issuing sustainability reports.

Environmental, Social and Governance activities

During 2022, the Group undertook a wide range of activities that reflect its commitment to the sustainability approach described above and made a number of important achievements toward further embedding ESG considerations in many aspects of our business endeavors. Examples of our key achievements, our adopted disclosure standards and certain ESG ratings considerations are summarized below.

<u>Description</u>	<u>Activity</u>
Select achievements	<ul style="list-style-type: none">introduced a Climate Action Plan, which sets out a pathway toward net zero for in-scope investments in Asset Management and Wealth Management (discretionary mandates managed within Investment Solutions and Sustainability)Credit Suisse Asset Management joined the Net Zero Asset Managers initiative, broadening our net zero commitmentset goals for six sectors, based on our commitment to develop interim 2030 science-based goals for key sectors. In addition, expanded our sector policies to cover additional climate- and nature-sensitive activitiesfurther progressed toward our representation targets for women globally and Black talent in the US and UKheld our second Sustainability Week and launched the Center for Sustainability as a pillar of the Credit Suisse Research institute to provide clients and stakeholders with thought leadership and research on emerging sustainability topicsdeveloped a new Risk Culture Framework to enhance risk management at Credit Suisseestablished more clearly defined ESG metrics into Executive Board compensationContinued volunteering efforts by Credit Suisse employees around the world to help charitable causes, drawing on their skills and expertise for the benefit of local communities
Disclosure standards	<ul style="list-style-type: none">continues to disclose information that is pursuant to the World Economic Forum International Business Council Stakeholder Capitalism Metrics alongside reporting according to the SASB Standards (now consolidated into the International Sustainability Standards Board) and reference to the GRI Standards for sustainability reportingcontinues to support the recommendations of the TCFD, where our disclosure is intended to provide transparency on the progress that we have made in addressing significant risks and opportunities arising from climate change
ESG ratings	<ul style="list-style-type: none">assessed by a number of ESG ratings providers such as S&P Global (Corporate Sustainability Assessment), Sustainalytics, MSCI and CDP, and we continue to be included in the FTSE4Good Index Series

The Group's Sustainability Report is available on our website at [credit-suisse.com/sustainabilityreport](https://www.credit-suisse.com/sustainabilityreport). An overview of Credit Suisse's most recent ESG ratings and its inclusion in sustainability indices is available at: [credit-suisse.com/sustainability-ratings-indices](https://www.credit-suisse.com/sustainability-ratings-indices).

Sustainability Governance

Governance of sustainability is exercised through the established governance bodies of the Group, thus integrating sustainability into existing businesses processes and structures, as well as through boards and committees specifically focused on

sustainability topics as described in further detail below. The following chart illustrates the main corporate bodies at Board, Executive Board, and senior management levels that are involved in maintaining robust sustainability governance at Credit Suisse, as reflected in the Sustainability Governance Framework.

Sustainability Governance Framework

Board of Directors	Board of Directors Approves and monitors the sustainability strategy				
	Sustainability Advisory Committee Assists the Board, in an advisory capacity, in fulfilling its oversight duties with respect to the Group's sustainability strategy, target and program effectiveness	Risk Committee Oversees and reviews the Group's risk management function in the context of sustainability	Conduct and Financial Crime Control Committee Oversees the Group's exposure to financial crime risk in the context of sustainability	Audit Committee Oversees and reviews Group ESG disclosures	Compensation Committee Determines compensation incentives in the context of ESG-related factors
	Executive Board Responsible for the day-to-day operational management and reviews and coordinates significant initiatives, projects and business developments in the field of sustainability				
	Executive Board Risk Management Committee Oversight function with respect to market, credit, reputational and sustainability risk-related matters		Group Conduct Board Oversees how conduct matters are handled and ensures consistency and the alignment of practices across the Group		
	Purpose, Values and Culture Council¹ Oversees implementation and embedding of culture across Group		ESG Disclosure & Reporting Steering Committee² Provides oversight and approval for Group ESG disclosures		
Management	Divisional Risk Management Committees	Divisional Conduct Boards	Sustainability Leadership Committee Responsible for strategy development, progress oversight and identification of growth opportunities		
	Global Client Risk Committee		Sustainability Operational Committee Oversees initiatives, projects and other strategy execution and framework methodology changes		
	Divisional Client Risk Committees	Functional Conduct Board			Sustainability Framework Committees Reviews and signs off of transactions based on the existing frameworks
	Climate Risk Strategy Steering Committee	Sustainability (Climate) Risk Executive Leadership Committee	Regional Conduct Board(s)		

¹ In 2023, the Purpose, Values and Culture Council will be replaced with the Group Culture and Values Board.

² Co-chaired by the CFO and Chief Sustainability Officer.

Employee relations

As of December 31, 2022, we had 50,480 employees worldwide, of which 16,700 were in Switzerland and 33,780 were abroad. Our corporate titles include managing director, director, vice president, assistant vice president and non-officer staff. The majority of our

employees do not belong to unions. We have not experienced any significant strikes, work stoppages or labor disputes in recent years. We consider our relations with our employees to be good.

- Refer to “Credit Suisse” in II – Operating and financial review for further information on our responsibility as an employer.

Shareholders

Capital structure

Our total issued share capital as of December 31, 2022 was CHF 160,086,322 divided into 4,002,158,062 shares, with a nominal value of CHF 0.04 per share. On November 23, 2022, the Group held an EGM, at which shareholders approved two capital increases. The Group completed the first capital increase on November 25, 2022 by way of a share placement of 462,041,884 newly issued shares to qualified investors and a second capital increase by way of a rights offering on December 9, 2022. The two capital increases resulted in 1,351,410,342 newly issued shares. Under the 2021 Share Repurchase Program, Credit Suisse repurchased 25,087,000 of its shares on a second trading line on the SIX Swiss Exchange. These shares were not cancelled by means of a capital reduction and instead used to service employee participation plans.

- Refer to “Share purchases” in III – Treasury, Risk, Balance sheet and Off-balance sheet – Capital management for further information.

- Refer to “Note 17 – Share capital, conditional, conversion and authorized capital” in VII – Parent company financial statements – Credit Suisse Group and our AoA (Articles 26, 26c and 27) for information on changes to our capital structure during the year. Refer to [credit-suisse.com/annualreporting](https://www.credit-suisse.com/annualreporting) for prior year annual reports.

Shareholder information

Shareholder base

We have a broad shareholder base, with the majority of shares owned directly or indirectly by institutional investors outside Switzerland. As of December 31, 2022, 127,369 shareholders were registered in our share register with 2,112,719,852 shares, representing 53% of the total shares issued. The remaining 47% of shares are not registered in our share register. As of December 31, 2022, 212,513,843 or 5.31% of the issued shares were in the form of ADS. The information provided in the following tables reflects the distribution of Group shares as registered in our share register as of December 31, 2022.

Distribution of Group shares

end of	2022				2021			
	Number of shareholders	%	Number of shares	%	Number of shareholders	%	Number of shares	%
Distribution of Group shares								
Private investors	124,484	98	515,341,070	13	100,799	98	252,207,277	10
of which Switzerland	111,397	87	435,383,881	11	89,777	87	208,642,607	8
of which foreign	13,087	10	79,957,189	2	11,022	11	43,564,670	2
Institutional investors	2,885	2	1,597,378,782	40	2,561	2	1,296,354,087	49
of which Switzerland	2,600	2	391,597,268	10	2,225	2	287,213,758	11
of which foreign ¹	285	0	1,205,781,514	30	336	0	1,009,140,329	38
Shares registered in share register	127,369	100	2,112,719,852	53	103,360	100	1,548,561,364	58
of which Switzerland	113,997	90	826,981,149	21	92,002	89	495,856,365	19
of which Europe	11,286	9	713,408,516	18	9,457	9	525,277,642	20
of which US ¹	152	0	542,313,346	14	167	0	505,114,571	19
of which other	1,934	2	30,016,841	1	1,734	2	22,312,786	1
Shares not registered in share register	—	—	1,889,438,210	47	—	—	1,102,186,356	42
Total shares issued	—	—	4,002,158,062	100	—	—	2,650,747,720	100

¹ Includes shares issued in the form of ADS.

Distribution of institutional investors in share register by industry

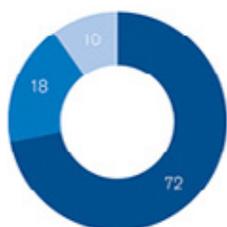
end of	2022				2021			
	Number of shareholders	%	Number of shares	%	Number of shareholders	%	Number of shares	%
Institutional investors by industry								
Banks	11	0	6,148,257	0	13	1	550,416	0
Insurance companies	65	2	17,089,058	1	75	3	31,254,620	2
Pension funds	266	9	60,670,360	4	285	11	49,588,692	4
Investment trusts	243	8	274,291,236	17	292	11	220,284,468	17
Other trusts	337	12	8,265,799	1	352	14	7,001,850	1
Governmental institutions	26	1	181,555	0	28	1	764,832	0
Other ¹	1,849	64	183,224,602	11	1,417	55	135,429,360	10
Direct entries	2,797	97	549,870,867	34	2,462	96	444,874,238	34
Fiduciary holdings	88	3	1,047,507,915	66	99	4	851,479,849	66
Total institutional investors	2,885	100	1,597,378,782	100	2,561	100	1,296,354,087	100

Rounding differences may occur.

¹ Includes various other institutional investors for which a breakdown by industry type was not available.

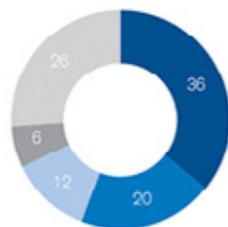
Through the use of an external global market intelligence firm, we regularly gather additional information on the composition of our shareholder base, including information on shares that are not registered in our share register. According to this data, our shareholder base as of December 31, 2022 comprised 72% institutional investors, with just over one third of such investors located in North America. The distribution of Group shareholdings by investor type and region is shown as follows:

**Group shares
by investor type**
End of 2022 (in %)



■ Institutional investors
■ Private investors
■ Other investors

**Institutional investors
by region**
End of 2022 (in %)



■ North America ■ Switzerland
■ UK & Ireland ■ Europe
■ Other

Shareholder engagement

The Group engages regularly with its shareholders and proxy advisors. The purpose of such engagements is to understand the perspectives of its shareholders, exchange views about the Group's strategy, financial performance, corporate governance and compensation and other matters of importance to the

Group or its shareholders. Shareholder engagement meetings may be attended by the Chairman, the Compensation Committee Chair, the Sustainability Advisory Committee Chair, the CEO, CFO and other members of the Board or senior management. The responsibility for shareholder engagement is overseen by our Investor Relations department. The Group aims to ensure that all shareholders receive the relevant information they need to keep abreast of current Group developments and make informed decisions.

Information policy

We are committed to an open and fair information policy with our shareholders and other stakeholders. Our Investor Relations and Corporate Communications departments are responsible for addressing inquiries received. All Group shareholders registered in our share register receive an invitation to our AGM, including instructions on how to receive the annual report and other reports. Each registered shareholder may elect to receive the quarterly reports on our financial performance. All of these reports and other information can be accessed on our website at credit-suisse.com/investors.

Notices required under Swiss law

Notices to shareholders required under Swiss law are made by publication in the Swiss Official Gazette of Commerce. The Board may designate further means of communication for publishing notices to shareholders. Notices required under the listing rules of the SIX Swiss Exchange will either be published in two Swiss newspapers in German and French and sent to the SIX Swiss Exchange or otherwise communicated to the SIX Swiss Exchange in accordance with applicable listing rules. The SIX Swiss Exchange may further disseminate the relevant information.

Significant shareholders

Under the Swiss Federal Act on Financial Market Infrastructure and Market Conduct in Securities and Derivative Trading (Fin-FMIA), anyone holding shares in a company listed on the SIX Swiss Exchange is required to notify the company and the SIX Swiss Exchange if their holding reaches, falls below or exceeds the following thresholds: 3%, 5%, 10%, 15%, 20%, 25%, 33 $\frac{1}{3}$ %, 50% or 66 $\frac{2}{3}$ % of the voting rights entered into the commercial register, whether or not the voting rights can be exercised (that is, notifications must also include certain derivative holdings such as options or similar instruments). Following receipt of such notification, the company has an obligation to inform the public. In addition, pursuant to the Swiss Code of Obligations, a company must disclose in the notes to its annual consolidated financial statements the identity of any shareholders who own in excess of 5% of its shares. The following provides an overview of the holdings of our significant shareholders, including any rights to purchase or dispose of shares, based on the most recent disclosure notifications. In line with the FinFMIA requirements, the percentages indicated below were calculated in relation to the share capital reflected in the AoA at the time of the disclosure notification. As shareholders are only required to notify the company and the SIX Swiss Exchange if their holding reaches, falls below or exceeds the thresholds listed above, the percentage holdings of our significant shareholders may vary at any given time compared

to the date of submission of the most recent notification for these respective shareholders. The full text of all notifications can be found on our website at credit-suisse.com/shareholders. Each share entitles the holder to one vote, except as described below.

- Refer to “Note 3 – Business developments, significant shareholders and sub-sequent events” in VI – Consolidated financial statements – Credit Suisse Group for further information on significant shareholders.

The Group also holds positions in its own shares, including shares acquired through the Share Repurchase Program described above, which are subject to the same disclosure requirements as significant external shareholders. These positions fluctuate and, in addition to the activities from the Share Repurchase Program, primarily reflect activities related to market making, facilitating client orders and satisfying the obligations under our employee compensation plans. Shares held by the Group have no voting rights. As of December 31, 2022, our holdings amounted to 1.96% purchase positions (1.50% registered shares and 0.46% share acquisition rights) and 0.63% sales positions (disposal rights).

- Refer to “Share purchases” in III – Treasury, Risk, Balance sheet and Off-balance sheet – Capital management for further information.

Cross shareholdings

The Group has no cross shareholdings in excess of 5% of capital or voting rights with any other company.

Significant shareholders

	Group publication of notification	Number of shares (million)	Approximate shareholding % ¹	Purchase rights %
December 31, 2022 or the most recent notification date				
Saudi National Bank	December 10, 2022	395.5	9.88 ²	—
BlackRock Inc.	February 10, 2023	163.1	4.07 ³	—
The Olayan Group (registered entity – Competrol Establishment)	December 12, 2018	126.0	4.93	0.07 ⁴
Qatar Investment Authority (registered entity – Qatar Holding LLC)	November 17, 2021	133.2	5.03	—
December 31, 2021 or the most recent notification date				
Qatar Investment Authority (registered entity – Qatar Holding LLC)	November 17, 2021	133.2	5.03	—
The Olayan Group (registered entity – Competrol Establishment)	December 12, 2018	126.0	4.93	0.07
Dodge & Cox	September 19, 2020	122.2	4.99	—
BlackRock Inc.	January 26, 2022	109.0	4.11	0.95
Harris Associates L.P.	November 9, 2013	81.5	5.17	—
Silchester International Investors LLP	December 7, 2018	77.4	3.03	—
December 31, 2020 or the most recent notification date				
Qatar Investment Authority (registered entity – Qatar Holding LLC)	September 6, 2018	133.2	5.21	0.39
Norges Bank	February 15, 2018	127.4	4.98	—
The Olayan Group (registered entity – Competrol Establishment)	December 12, 2018	126.0	4.93	0.07
Dodge & Cox	September 19, 2020	122.2	4.99	—
BlackRock Inc.	March 16, 2021	100.5	4.11	0.93
Harris Associates L.P.	November 9, 2013	81.5	5.17	—
Silchester International Investors LLP	December 7, 2018	77.4	3.03	—

- 1 The approximate shareholding percentages were calculated in relation to the share capital at the time of the relevant disclosure notification. They therefore do not reflect changes in such percentages that would result from changes in the number of outstanding shares, following the date of the disclosure notification.
- 2 Total purchase positions disclosed were 9.88%.
- 3 Total purchase positions disclosed were 4.93% (4.07% in shares and 0.86% voting rights that can be exercised at one's own discretion).
- 4 The 0.07% purchase rights relate to put options and perpetual tier 1 contingent convertible capital notes.

Shareholder rights

We are fully committed to the principle of equal treatment of all shareholders. The following information summarizes certain shareholder rights at the Group.

Voting rights and transfer of shares

There is no limitation under Swiss law or the AoA on the right to own Group shares.

In principle, each share represents one vote at the AGM. Shares held by the Group have no voting rights. Shares for which a single shareholder or shareholder group can exercise voting rights may not exceed 2% of the total outstanding share capital, unless one of the exemptions discussed below applies. The restrictions on voting rights do not apply to:

- the exercise of voting rights by the independent proxy as elected by the AGM;
- shares in respect of which the shareholder confirms to us that the shareholder has acquired the shares in the shareholder's name for the shareholder's own account and in respect of which the disclosure requirements in accordance with the FinFMIA and the relevant ordinances and regulations have been fulfilled; or
- shares that are registered in the name of a nominee, provided that this nominee is willing to furnish us, on request, the name, address and shareholdings of any beneficial owner or group of related beneficial owners on behalf of whom the nominee holds 0.5% or more of the total outstanding share capital of the Group.

To execute voting rights, shares need to be registered in the share register directly or in the name of a nominee. In order to be registered in the share register, the purchaser must file a share registration form with the depository bank. The registration of shares in the share register may be requested at any time. Failing such registration, the purchaser may not vote or participate in shareholders' meetings. However, each shareholder, whether registered in the share register or not, is entitled to receive dividends or other distributions approved at the AGM. Transfer restrictions apply regardless of the way and the form in which the registered shares are kept in the accounts and regardless of the provisions applicable to transfers. The transfer of intermediated securities based on Group shares, and the pledging of these intermediated securities as collateral, is based on the provisions of the Swiss Federal Intermediated Securities Act. The transfer or pledging of shares as collateral by means of written assignment is not permitted.

- Refer to [credit-suisse.com/articles](https://www.credit-suisse.com/articles) for information in our AoA (Art. 10 and 14a) on share register and transfer of shares, voting rights and the independent proxy.

Annual General Meeting

Under Swiss law, the AGM must be held within six months of the end of the fiscal year. Notice of an AGM, including agenda items and proposals submitted by the Board and by shareholders, must be published in the Swiss Official Gazette of Commerce at least 20 days prior to the AGM.

Shares only qualify for voting at an AGM if they are registered in the share register with voting rights in accordance with the registration deadline as set out in the invitation to the AGM.

Pursuant to the articles of association the Board of Directors will specify the applicable regulations for the provision of power of attorney and instructions to the independent proxy (i.e., as part of the invitation to the general meeting).

Convocation of shareholder meetings

The AGM is convened by the Board or, if necessary, by the statutory auditors, with 20 days' prior notice. The Board is further required to convene an EGM if so resolved at a shareholders' meeting or if so requested by shareholders holding in aggregate at least 10% of the nominal share capital. The request to call an EGM must be submitted in writing to the Board, and, at the same time, Group shares representing at least 10% of the nominal share capital must be deposited for safekeeping. The shares remain in safekeeping until the day after the EGM.

Request to place an item on the agenda

Shareholders holding shares with an aggregate nominal value of at least CHF 40,000 have the right to request that a specific item be placed on the agenda and voted upon at the AGM. The request to include a particular item on the agenda, together with a relevant proposal, must be submitted in writing to the Board no later than 45 days before the meeting and, at the same time, Group shares with an aggregate nominal value of at least CHF 40,000 must be deposited for safekeeping. The shares remain in safekeeping until the day after the AGM.

In the context of the Corporate Law Reform upon shareholder approval of and the proposed changes to our AoA, the related AGM authorities will change so that one or more shareholders whose combined holdings represent at least 5% of the share capital or votes can request that a shareholders' meeting be called. The request to include a particular item on the agenda of the shareholders' meeting, or the request to include a proposal relating to an agenda item must be submitted in writing together with the relevant proposals. At the same time, shares of the Group representing at least 0.025% of the share capital or votes (which corresponds to a nominal value of approximately CHF 40,000) are to be deposited for safekeeping.

Virtual meetings during the COVID-19 pandemic

Due to the COVID-19 pandemic, and pursuant to the Swiss Federal Council's related COVID-19 ordinance, the 2022 AGM and EGM were held without the personal attendance of shareholders. Shareholders were represented at the 2022 AGM and EGM exclusively by the independent proxy. Since the COVID-19 ordinance is no longer applicable and the Corporate Law Reform provides for more flexibility in connection with shareholders' meetings, the Board proposes changes to our AoA, which would allow the possibility to hold hybrid and virtual meetings in the event of exceptional circumstances, in addition to physical meetings.

Shareholders' resolutions that require a vote

A majority of the votes represented	At least two-thirds of the votes represented	At least half of the total share capital and approval by a least three-quarters of the votes represented
<ul style="list-style-type: none"> amendments to the AoA, unless a super-majority is required; election of members of the Board, the Chairman, the members of the Compensation Committee, the independent proxy and statutory auditors; approval of the compensation of the members of the Board and the Executive Board; approval of the annual report and the statutory and consolidated accounts; discharge of the acts of the members of the Board and Executive Board; and determination of the appropriation of retained earnings. 	<ul style="list-style-type: none"> change of the purpose of the company; creation of shares with increased voting powers; implementation of transfer restrictions on shares; increase in conditional and authorized capital; increase in capital by way of conversion of capital surplus or by contribution in kind; restriction or suspension of pre-emptive sub-scriptio n rights; change of location of the principal office; and dissolution of the company without liquidation. 	<ul style="list-style-type: none"> conversion of registered shares into bearer shares; amendments to the AoA relating to registration and voting rights of nominee holders; and dissolution of the company.

Quorum requirements

The AGM may, in principle, pass resolutions without regard to the number of shareholders present at the meeting or represented by proxy, except as discussed below. Resolutions and elections generally require the approval of a majority of the votes represented at the meeting, except as otherwise provided by mandatory provisions of law or by the AoA.

A quorum of at least half of the total share capital and the approval of at least seven-eighths of the votes cast is required for amendments to provisions of the AoA relating to voting rights.

Say-on-Pay

In accordance with the Swiss Code of Best Practice for Corporate Governance, the Group will submit the compensation report (contained in the Compensation section of the 2022 Annual Report) for a consultative, non-binding vote by shareholders at the 2023 AGM. In accordance with Swiss law, the Group will submit the following Board and Executive Board compensation recommendations for binding votes by shareholders at the 2023 AGM:

- For the Board: a maximum amount of compensation for the Board for the period from the 2023 AGM to the 2024 AGM;
- For the Executive Board: a maximum amount of fixed compensation for the Executive Board for the period from the 2023 AGM to the 2024 AGM; and
- For the Executive Board: an aggregate amount of compensation comprising the Transformation Award to be granted in 2023, subject to performance conditions over the three-year period from the beginning of 2023 to the end of 2025.
- Refer to “Say-on-pay vote” in V – Compensation – Compensation framework, policy, and governance for further information on the say-on-pay vote.

Discharge of the acts of the Board and the Executive Board

According to Swiss law, the AGM has the power to discharge the actions of the members of the Board and the Executive Board. The 2022 AGM granted discharge to the Board and Executive Board for the 2021 financial year, excluding discharge in relation to the SCFF matter. The Board had also proposed to the 2022 AGM to grant discharge for the 2020 financial year, excluding discharge in relation to the SCFF matter, as the discharge proposal was withdrawn from the 2021 AGM agenda. Shareholders did not support the Board’s proposal in this case, however, and voted against the granting of discharge to the members of the Board and the Executive Board for the 2020 financial year.

Pre-emptive subscription rights and preferential subscription rights

Under Swiss law, any share issue, whether for cash or non-cash consideration or no consideration, is subject to the prior approval of the shareholders. Shareholders of a Swiss corporation have certain pre-emptive subscription rights to subscribe for new issues of shares and certain preferential rights to subscribe for option bonds, convertible bonds or similar debt instruments with option or convertible rights in proportion to the nominal amount of shares held. A resolution adopted at a shareholders’ meeting with a supermajority may, however, limit or suspend pre-emptive subscription rights in certain limited circumstances.

Duty to make an offer

Swiss law provides that anyone who, directly or indirectly or acting in concert with third parties, acquires 33⅓% or more of the voting rights of a listed Swiss company, whether or not such rights are exercisable, must make an offer to acquire all of the listed equity securities of such company, unless the AoA of the company provides otherwise. Our AoA does not include a contrary provision. This mandatory offer obligation may be waived under certain circumstances by the Swiss Takeover Board or FINMA. If no waiver is granted, the mandatory offer must be made pursuant to procedural rules set forth in the FinFMIA and implementing ordinances.

Clauses on changes in control

To the best of our knowledge, there are no agreements in place that could lead to a change in control of the Group. Subject to certain provisions in the Group's employee compensation plans, which allow for the Compensation Committee or Board to determine the treatment of outstanding awards for all employees, including the Executive Board members, in the case of a change in control, there are no provisions that require the payment of extraordinary benefits in the agreements and plans benefiting members of the Board and the Executive Board or any other members of senior management. Specifically, there are no contractually agreed severance payments in the case of a change in control of the Group.

- Refer to "Contract lengths, termination and change in control provisions" in V – Compensation – Supplementary information for further information on the clauses on changes in control.

Trading restrictions and blackout periods

Group employees with access to material, non-public information relating to the Group and its businesses, such as members of the Executive Board, are subject to a number of trading restrictions, including, but not limited to, pre-clearance requirements and regular blackout periods and permitted trading windows. These trading restrictions are also applicable to members of the Board. Group employees that, by nature of their activities, have potentially greater and regular access to material, non-public information relating to the Group (Access Persons), such as members of the Executive Board, are generally prohibited from trading in Group securities for fourteen full calendar days prior to the end of each quarter. Other Group employees are generally prohibited from trading in Group securities for five full business days prior to public announcement of the earnings for the preceding quarter. The permitted trading window reopens one day after the public announcement of the Group's earnings for the preceding quarter. Even during permitted trading windows, Group employees who are in possession of material, non-public information relating to the Group are prohibited from trading in (or suggesting to others that they trade in) any Group securities.

Borrowing and raising funds

Neither Swiss law nor our AoA restrict our power to borrow and raise funds in any way. The decision to borrow funds is passed by or under the direction of our Board, with no shareholders' resolution required.

Liquidation

Under Swiss law and our AoA, the Group may be dissolved at any time by a shareholders' resolution, which must be passed by:

- a supermajority of at least three-quarters of the votes cast at the meeting in the event the Group were to be dissolved by way of liquidation; and
- a supermajority of at least two-thirds of the votes represented and an absolute majority of the par value of the shares represented at the meeting in other cases.

Dissolution by order of FINMA is possible if we become bankrupt. Under Swiss law, any surplus arising out of liquidation (after the settlement of all claims of all creditors) is distributed to shareholders in proportion to the paid-up par value of shares held.

Board of Directors

General information

Membership and qualifications

The AoA (Chapter IV, Section 2, The Board of Directors, Art. 15.1 of the Group's AoA and Chapter III, Section 6. Board of Directors, Art. 6.1 of the Bank's AoA) provide that the Board shall consist of a minimum of seven members. The Board currently consists of 12 members. We believe that the size of the Board must be such that the committees can be staffed with qualified members. At the same time, the Board must be small enough to ensure an effective and rapid decision-making process. Board members are elected at the AGM by our shareholders individually for a period of one year and are eligible for re-election. In exceptional cases, Board members are elected at an EGM for a period from their election until the next AGM. Shareholders will also elect a member of the Board as the Chairman and each of the members of the Compensation Committee for a period of one year. One year of office is understood to be the period of time from one AGM to the close of the next AGM. Members of the Board shall generally retire after having served on the Board for 12 years. Under certain circumstances, the Board may extend the limit of terms of office for a particular Board member for a maximum of three additional years.

An overview of the Board and the committee membership is shown in the following table. The composition of the Boards of the Group and the Bank is identical.

Board composition and succession planning

The Governance and Nominations Committee regularly considers the composition of the Board as a whole and in light of staffing requirements for the committees. The Governance and Nominations Committee recruits and evaluates candidates for Board membership based on criteria as set forth by the OGR (Chapter II Board of Directors, Item 8.2.3). The Governance and Nominations Committee may also retain outside consultants with respect to the identification and recruitment of potential new Board members. In assessing candidates, the Governance and Nominations Committee considers the requisite skills and characteristics of potential Board members as well as the composition of the Board as a whole. Among other considerations, the Governance and Nominations Committee takes into account areas of expertise, management experience, independence and diversity in the context of the needs of the Board to fulfill its responsibilities. The Governance and Nominations Committee also considers other activities and commitments of an individual in order to be satisfied that a proposed member of the Board can devote enough time to a Board position at the Group.

- Refer to "Mandates" for further information.

Members of the Board of Directors

	Board member since	Independence	Governance and Nominations Committee	Audit Committee	Risk Committee	Compensation Committee	Conduct and Financial Crime Control Committee	Digital Transformation and Technology Committee	Sustainability Advisory Committee
Elected at 2022 AGM									
Axel Lehmann, Chairman ¹	2021	Independent	Chair	—	—	—	—	—	—
Mirko Bianchi ²	2022	Independent	Member	Chair	Member	—	Member	—	—
Iris Bohnet	2012	Independent	—	—	—	Member	—	—	Chair
Clare Brady Christian	2021	Independent	—	Member	—	—	Chair	—	Member
Gellerstad ^{3,4}	2019	Independent	Member	—	—	Chair	Member	Member	—
Keyu Jin	2022	Independent	—	—	Member	—	—	Member	—
Shan Li	2019	Independent	—	—	Member	Member	—	—	—
Seraina Macia	2015	Independent	—	Member	—	—	—	Member	—
Blythe Masters ^{2,4}	2021	Independent	Member	—	—	—	—	Chair	—
Richard Meddings ^{2,4}	2020	Independent	Member	Member	Chair	—	—	—	—
Amanda Norton ⁴	2022	Independent	—	—	Member	Member	—	—	—
Ana Paula Pessoa ⁴	2018	Independent	—	Member	—	—	Member	—	—

¹ Chairman as of January 16, 2022.

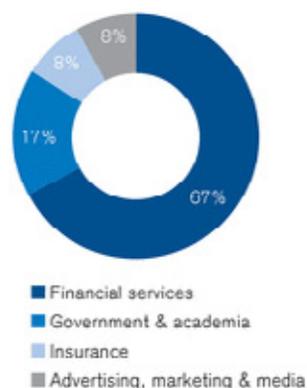
² Member of the Investment Banking Strategy Committee (an ad-hoc Board committee) that was chaired by the former Board member Michael Klein.

³ Vice-Chair and Lead Independent Director.

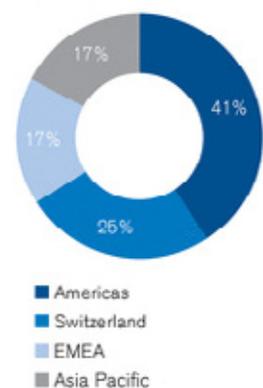
⁴ Subsidiary board memberships: Christian Gellerstad, Credit Suisse Schweiz AG; Blythe Masters, Credit Suisse Holdings (USA), Chair; Richard Meddings, Credit Suisse International and Credit Suisse Securities (Europe) Ltd., Vice Chair; Amanda Norton, Credit Suisse Holdings (USA), Risk Committee Chair; and Ana Paula Pessoa, Brazil Advisory Board, Chair and Credit Suisse Bank (Europe), Chair.

Board composition as of the end of 2022

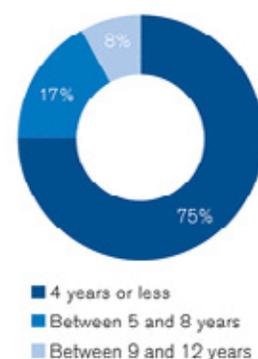
Industry experience



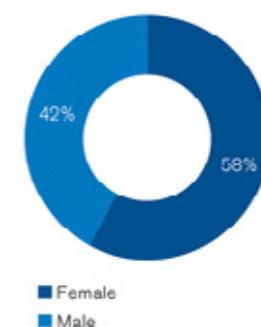
Geographical focus¹



Length of tenure



Gender diversity



¹ Represents the region in which the Board member has mostly focused his or her professional activities and may differ from the individual's nationality

The background, skills and experience of our Board members are diverse and broad and include holding or having held top management positions at financial services and other companies in Switzerland and abroad, as well as leading positions in government, academia and international organizations. The Board is composed of individuals with wide-ranging professional expertise in key areas including the management of client-facing businesses; investment management; finance and/or audit; risk, legal and/or compliance; people, culture and/or compensation; digitalization and/or technology; ESG; and governance, regulatory and/or academia. Diversity of culture, experience and opinion are important aspects of Board composition, as well as gender diversity. While the ratio of female-to-male Board members may vary in any given year, the Board is committed to complying with the gender diversity guidelines as stipulated in the new Swiss corporate law. As shown in the chart above, the Board currently consists of seven female and five male directors. The collective experience and expertise of our Board members as of the end of 2022 across those key areas considered particularly relevant for the Group is illustrated in the following chart.

In areas where the Board's collective experience and expertise may require strengthening, the Board may decide to nominate a new Board member candidate with specialist expertise, engage outside experts or take other measures.

Board member experience and expertise

(Number of Board members as of the end of 2022; total of 12)

Leadership experience

Executive-level role in financial industry (>10 years)

Non-executive board member for listed company



Areas of expertise¹

Client-Facing Business



Investment Management



Finance and/or Audit



Risk, Legal and/or Compliance



People, Culture and/or Compensation



Digitalization and/or Technology



ESG



Government, Regulatory and/or Academia



¹ Refer to "Biographies of the Board" for individual areas of expertise.

To maintain a high degree of expertise, diversity and independence in the future, the Board has a succession planning process in place to identify potential candidates for the Board at an early stage. With this process, we are well prepared when Board members rotate off the Board. The objectives of the succession planning process are to ensure adequate representation of key Board competencies and a Board composition that is well suited to address future challenges, while maintaining the stability and professionalism of the Board. Potential candidates are evaluated according to criteria defined to assess the candidates' expertise and experience, which include the following:

- proven track record as an executive with relevant leadership credentials gained in an international business environment in financial services or another industry;
- relevant functional skills and credentials in the key areas listed above;
- understanding of global banking, financial markets and financial regulation;
- broad international experience and global business perspective, with a track record of having operated in multiple geographies;
- ability to bring insight and clarity to complex situations and to both challenge and constructively support management;
- high level of integrity and affinity with the Group's values and corporate culture; and
- willingness to commit sufficient time to prepare for and attend Board and committee meetings.

The evaluation of candidates also considers formal independence and other criteria for Board membership, consistent with legal and regulatory requirements and the Swiss Code of Best Practice for Corporate Governance. Furthermore, we believe that other aspects, including team dynamics and personal reputation of Board members, play a critical role in ensuring the effective functioning of the Board. This is why the Group places the utmost importance on the right mix of personalities who are also fully committed to making their blend of specific skills and experience available to the Board.

Chairman succession

Axel Lehmann was elected as a member of the Board by the EGM of October 1, 2021. Effective January 16, 2022, the Board appointed Mr. Lehmann as Chairman and successor to Antonio Horta-Osorio, who resigned as Chairman in January 2022. At the 2022 AGM, Mr. Lehmann was subsequently elected as Chairman.

New members and continuing training

Any newly appointed member is required to participate in an orientation program to become familiar with our legal and organizational structure, strategic plans, business operations and significant financial, risk, compliance and regulatory issues and other important matters relating to the governance of the Group. The orientation program is designed to take into account the new Board member's individual background and level of experience in each specific area. Moreover, the program's focus is aligned with any committee memberships of the person concerned. In addition to the comprehensive orientation program for new Board members, continuous training forms part of the Board and Board committee agendas through topical deep dives, as well as training on specific bank compliance topics relevant to the Board, such as electronic communication, cybersecurity, data protection and personal account trading. The Board and the committees of the Board regularly ask specialists within the Group to speak about specific topics in order to enhance the Board members' understanding of issues that already are, or may become, of particular importance to our business.

Meetings

In 2022, the Board held 28 meetings, including an annual two-day strategy session, the majority of which were held as video or telephone conferences in part due to COVID-19-related travel and other restrictions on holding in-person meetings that remained in place in various jurisdictions in 2022. The members of the Board are encouraged to attend all meetings of the Board and the committees on which they serve. Similar to 2021, there were a relatively high number of Board meetings held during 2022 compared to earlier years, due to the need to call frequent extraordinary meetings in connection with the strategy update and overall challenging situation of the firm, as well as various key leadership changes.

Meeting attendance – Board and Board committees

	Board of Directors	Governance and Nominations Committee	Audit Committee	Risk Committee	Compensation Committee	Conduct and Financial Crime Control Committee	Digital Transformation and Technology Committee	Sustainability Advisory Committee
in 2022								
Total number of meetings held	28	25	24	13	12	6	5	4
Extraordinary meetings	19	16	6	0	3	0	0	0
Meeting attendance, in %	98	95	98	97	91	93	100	100
Approximate meeting duration, in hours	7-8	2-3	5-6	5-6	2-3	3	2-3	2

Meeting attendance is shown for the calendar year 2022, which spans two Board periods.

Meeting attendance by Board member

	Attended / Maximum ¹									Attendance in %
	BoD	GNC	AC	RC	CC	CFCCC	DTCC	SAC	Total	Total
in 2022										
Axel Lehmann	28/28	25/25	—	3/3	—	—	—	—	56/56	100
Mirko Bianchi	13/13	—	15/15	10/10	—	4/4	—	—	42/42	100
Iris Bohnet	26/28	—	—	—	11/12	—	—	4/4	41/44	93
Clare Brady	28/28	—	23/24	—	—	6/6	—	3/3	60/61	98
Christian Gellerstad	28/28	22/25	—	—	12/12	4/6	5/5	—	71/76	93
Keyu Jin	13/13	—	—	10/10	—	—	4/4	—	27/27	100
Shan Li	28/28	—	—	12/13	6/6	—	—	—	46/47	98
Seraina Macia	27/28	—	23/24	—	—	—	5/5	—	55/57	96
Blythe Masters	25/28	16/18	—	—	5/6	—	5/5	—	51/57	89
Richard Meddings	28/28	25/25	23/24	13/13	—	2/2	—	—	91/92	99
Amanda Norton	11/11	—	—	7/7	4/5	—	—	—	22/23	96
Ana Paula Pessoa	26/28	—	24/24	—	—	6/6	—	—	56/58	97

BoD = Board of Directors; GNC = Governance and Nominations Committee; AC = Audit Committee; RC = Risk Committee; CC = Compensation Committee; CFCCC = Conduct and Financial Crime Control Committee; DTCC = Digital Transformation and Technology Committee; SAC = Sustainability Advisory Committee

¹ Owing to changes to the Board and committee composition during the Board period, the maximum and attended meetings per director varies.

All members of the Board are expected to spend the necessary time needed outside of these meetings to discharge their responsibilities appropriately. The Chairman calls the meeting with sufficient notice and prepares an agenda for each meeting. The Chairman may also call extraordinary meetings on short notice, should circumstances require. Any other Board member also has the right to call an extraordinary meeting, if deemed necessary. The Chairman has the discretion to invite members of management or others to attend the meetings. Generally, the members of the Executive Board attend part of the Board meetings to ensure effective interaction with the Board. The Board also holds separate private sessions without management present. Minutes are kept of the proceedings and resolutions of the Board.

From time to time, the Board may make certain decisions via circular resolution, unless a member asks that the matter be discussed in a meeting and not be decided upon by way of written consent. During 2022, the Board resolved five matters via circular resolution. As of the date of the publication of this report, in 2023, the Board has held three meetings, two of which were via video or telephone conference. So far in 2023, there have been no matters resolved via circular resolution.

Mandates

Our Board members may assume board or executive level or other roles in companies and organizations outside of the Group, which are collectively referred to as mandates. The Swiss Code of Obligations sets out that companies must include provisions in their AoA to set limits on the number of mandates that board members and executive management may hold. According to the Group's AoA (Chapter IV, Section 2, The Board of Directors, Art. 20b), mandates include activities in the most senior executive and management bodies of listed companies and all other legal entities that are obliged to obtain an entry in the Swiss commercial register or a corresponding foreign register. Subject to approval by the AGM, the Group's AoA will be revised such that mandates in the sense of Art. 20b will be deemed to comprise mandates in comparable functions at other enterprises with an economic purpose. Board members are obligated to disclose all mandates to the Group and changes thereto, which occur during their board tenure. Board members wishing to assume a new mandate with a company or organization must first consult with the Chairman before accepting such mandate, in order to ensure there are no conflicts of interest or other issues.

The limitations on mandates assumed by Board members outside of the

Group are summarized in the table below.

Type of mandate and limitation – Board

Type of mandate	Limitation
Listed companies	No more than four other mandates
Other legal entities ¹	No more than five mandates
Legal entities on behalf of the Group ²	No more than ten mandates
Charitable legal entities ³	No more than ten mandates

¹ Includes private non-listed companies.

² Includes memberships in business and industry associations.

³ Also includes honorary mandates in cultural or educational organizations.

No Board member holds mandates in excess of these restrictions. The assumption of up to five mandates in different legal entities under common control is deemed to constitute one mandate. The restrictions shown above do not apply to mandates of Board members in legal entities controlled by the Group such as subsidiary boards.

Overboarding

In addition to reviewing the number of mandates that a Board member concurrently holds with respect to the limitations described above, the Governance and Nominations Committee also considers the specific roles that Board members perform in other companies in order to identify cases of potential overboarding and to ensure that Board members have sufficient time to dedicate to their Credit Suisse Board mandate. Board members are required to disclose any changes in their mandates or changes to their roles within existing mandates as they occur to ensure that such changes would not lead to an overboarding situation. At the 2022 AGM, certain shareholders were critical of the proposed re-election of Ana Paula Pessoa due to concerns about overboarding in consideration of her concurrent mandates on five listed company boards, including Credit Suisse. Ms. Pessoa informed the Group of her intention to step down from the board of the Vinci Group (listed company) effective April 2023, thereby

reducing the number of her listed company mandates to four. She will also step down from the board of Kunumi AI (private company) in April 2023.

Independence

The Board consists solely of non-executive directors within the Group, of which at least the majority must be determined to be independent. In its independence determination, the Board takes into account the factors set forth in the OGR (Chapter II Board of Directors, Item 3.2), the committee charters and applicable laws, regulations and listing standards. Our independence standards are also periodically measured against other emerging best practice standards.

The Governance and Nominations Committee performs an annual assessment of the independence of each Board member and reports its findings to the Board for the final determination of independence of each individual member. The Board has applied the independence criteria of the SIX Swiss Exchange Directive on Information relating to Corporate Governance, FINMA, the Swiss Code of Best Practice for Corporate Governance and the rules of the NYSE and the Nasdaq Stock Market (Nasdaq) in determining the definition of independence.

Moreover, Board members with immediate family members who would not qualify as independent according to the above listed criteria shall be subject to a three-year cooling-off period for purposes of determining their independence after fulfilment of the independence criteria by the immediate family member. In addition, Board members are not deemed to be independent if they are qualified shareholders of the Group or represent such qualified shareholder. A qualified shareholder holds in excess of 10% of the Group's share capital or may otherwise influence the Group in a significant manner.

Independence criteria applicable to all Board members

Independence

In general, a director is considered independent if the director:

Criteria

- is not, and has not been for the past three years, employed as an Executive Board member at the Group or any of its subsidiaries or in another significant function at the Group;
- is not, and has not been for the past three years, an employee or affiliate of the Group's external auditor;
- does not, according to the Board's assessment, maintain a material direct or indirect business relationship with the Group or any of its subsidiaries, which causes a conflict of interest due to its nature or extent; and
- is not, or has not been for the past three years, part of an interlocking directorate in which an Executive Board member serves on the compensation committee of another company that employs the Board member.

Whether or not a relationship between the Group or any of its subsidiaries and a member of the Board is considered material depends in particular on the following factors:

- the volume and size of any transactions concluded in relation to the financial status and credit standing of the Board member concerned or the organization in which he or she is a partner, significant shareholder or executive officer;
- the terms and conditions applied to such transactions in comparison to those applied to transactions with counterparties of a similar credit standing;
- whether the transactions are subject to the same internal approval processes and procedures as transactions that are concluded with other counterparties;
- whether the transactions are performed in the ordinary course of business; and
- whether the transactions are structured in such a way and on such terms and conditions that the transaction could be concluded with a third party on comparable terms and conditions.

Specific independence considerations

Board members serving on the Audit Committee are subject to independence requirements in addition to those required of other Board members. None of the Audit Committee members may be an affiliated person of the Group or may, directly or indirectly, accept any consulting, advisory or other compensatory fees from us other than their regular compensation as members of the Board and its committees.

For Board members serving on the Compensation Committee, the independence determination considers all factors relevant to determining whether a director has a relationship with the Group that is material to that director's ability to be independent from management in connection with the duties of a Compensation Committee member, including, but not limited to:

- the source of any compensation of the Compensation Committee member, including any consulting, advisory or other compensatory fees paid by the Group to such director; and
- whether the Compensation Committee member is affiliated with the Group, any of its subsidiaries or any affiliates of any of its subsidiaries.

Other independence standards

While the Group is not subject to such standards, the Board acknowledges that some proxy advisors apply different standards for assessing the independence of our Board members, including the length of tenure a Board member has served, the full-time status of a Board Member, annual compensation levels of Board members within a comparable range to executive pay or a Board member's former executive status for periods further back than the preceding three years.

Independence determination

As of December 31, 2022, all members of the Board were determined by the Board to be independent.

Conflicts of interest

According to our OGR (Chapter IX Special provisions, Items 44.1, 44.2), the members of the Board, the Executive Board and the management committees of the divisions, regions and corporate functions are obliged to preserve the interests of the Group. Conflicts of interest of a personal nature, private or professional, potential conflicts of interest and even the appearance of conflicts of interest should be avoided. Any conflicts of interest with respect to a particular transaction, including conflicts of interest of persons or companies with whom the member has close personal relations, should be disclosed to the chair of the relevant governance body prior to the resolution process for such transaction. The affected member shall not become involved in the resolution process for such transaction.

In connection with the definition and ongoing implementation of the recently announced strategic initiatives, the Board has considered a number of potential conflicts of interest involving existing or former Board members in relation to certain projects being executed as part of those initiatives. The Board considered the aforementioned principles in pursuing those projects, supported by independent external advisers, and took measures to address any potential conflicts

of interest in accordance with those principles, including through recusals of interested parties in the decision-making process. The Board will continue to monitor for and take any necessary measures to address any potential conflicts of interest as this implementation progresses.

Board leadership

Chairman of the Board

The Chairman is a non-executive member of the Board, in accordance with Swiss banking law, and performs his role on a full-time basis, in line with the practice expected by FINMA, our main regulator. The Chairman:

- coordinates the work within the Board;
- works with the committee chairs to coordinate the tasks of the committees;
- ensures that the Board members are provided with the information relevant for performing their duties;
- drives the Board agenda;
- drives key Board topics, especially regarding the strategic development of the Group, succession planning, the structure and organization of the Group, corporate governance, as well as compensation and compensation structure, including the performance evaluation and compensation of the CEO and the Executive Board;
- chairs the Board, the Governance and Nominations Committee and the Shareholder Meetings;
- takes an active role in representing the Group to key shareholders, investors, regulators and supervisors, industry associations and other external stakeholders;
- has no executive function within the Group;
- with the exception of the Governance and Nominations Committee, is not a member of any of the other Board standing committees; and
- may attend all or parts of selected committee meetings as a guest without voting power.

Vice-Chair and Lead Independent Director

There may be one or more Vice-Chairs. The Vice-Chair:

- is a member of the Board;
- is a designated deputy to the Chairman; and
- assists the Chairman by providing support and advice to the Chairman, assuming the Chairman's role in the event of the Chairman's absence or indisposition and leading the Board accordingly.

According to the Group's OGR (Chapter II Board of Directors, Item 3.4), the Board may appoint a Lead Independent Director. If the Chairman is determined not to be independent by the Board, the Board must appoint a Lead Independent Director. The Lead Independent Director:

- may convene meetings without the Chairman being present;
- takes a leading role among the Board members, particularly when issues between the Chairman and Board members arise (for example, when the Chairman has a conflict of interest);
- leads the Board's annual assessment of the Chairman; and

- ensures that the work of the Board and Board-related processes continue to run smoothly.

Christian Gellerstad currently serves as the Vice-Chair and the Lead Independent Director.

Segregation of duties

In accordance with Swiss banking law, the Group operates under a dual board structure, which strictly segregates the duties of supervision, which are the responsibility of the Board, from the duties of management, which are the responsibility of the Executive Board. The roles of the Chairman (non-executive) and the CEO (executive) are separate and carried out by two different people.

Board responsibilities

In accordance with the OGR (Chapter II Board of Directors, Item 5.1), the Board delegates certain tasks to Board committees and delegates the management of the company and the preparation and implementation of Board resolutions to certain management bodies or executive officers to the extent permitted by law, in particular Article 716a and 716b of the Swiss Code of Obligations, and the AoA (Chapter IV, Section 2, The Board of Directors, Art. 17 of the Group's AoA and Chapter III, Section 6, Board of Directors, Art. 6.3 of the Bank's AoA).

With responsibility for the overall direction, supervision and control of the company, the Board:

- regularly assesses our competitive position and approves our strategic and financial plans and risk appetite statement and overall risk limits;
- appoints or dismisses the CEO and the members of the Executive Board and appoints or dismisses the head of Internal Audit as well as the regulatory auditor;
- receives a status report at each ordinary meeting on our financial results, capital, funding and liquidity situation;
- receives, on a monthly basis, management information packages, which provide detailed information on our performance and financial status, as well as quarterly risk reports outlining recent developments and outlook scenarios;
- is provided by management with regular updates on key issues and significant events, as deemed appropriate or requested;
- has access to all information concerning the Group in order to appropriately discharge its responsibilities;
- reviews and approves significant changes to our structure and organization;

- approves the annual variable compensation for the Group and the divisions and recommends compensation of the Board and Executive Board for shareholder approval at the AGM;
- provides oversight on significant projects including acquisitions, divestitures, investments and other major projects;
- approves the recovery and resolution plans of the Group and its major subsidiaries; and
- along with its committees, is entitled, without consulting with management and at the Group's expense, to engage external legal, financial or other advisors, as it deems appropriate, with respect to any matters within its authority.

Management information system

The Group has a comprehensive management information system in place as part of our efforts to ensure the Board and senior management are provided with the necessary information and reports to carry out their respective oversight and management responsibilities. The Chairman may request additional reports as deemed appropriate.

Governance of Group subsidiaries

The Board assumes oversight responsibility for establishing appropriate governance for Group subsidiaries. The governance of the Group is based on the principles of an integrated oversight and management structure with global scope, which enables management of the Group as one economic unit. The Group sets corporate governance standards to ensure the efficient and harmonized steering of the Group. In accordance with the OGR (Chapter II, Board of Directors, Item 5.1.16), the Board appoints or dismisses the chairperson and the members of the board of directors of the major subsidiaries of the Group and approves their compensation. A policy naming the subsidiaries in scope and providing guidelines for the nomination and compensation process is periodically reviewed by the Board. The governance of the major subsidiaries, subject to compliance with all applicable local laws and regulations, should be consistent with the corporate governance principles of the Group, as reflected in the OGR and other corporate governance documents. In order to facilitate consistency and alignment of Group and subsidiary governance, it is the Group's policy for the Board to appoint at least one Group director to each of the boards of its major subsidiaries. Directors and officers of the Group and its major subsidiaries are committed to ensuring transparency and collaboration throughout the Group.

Board evaluation

The Board conducts a self-assessment once a year, where it reviews its own performance against the responsibilities listed in its charter and the Board's objectives and determines future objectives, including any special focus objectives for the coming year. The performance assessment of the Chairman is led by the Vice-Chair; the Chairman does not participate in the discussion of his own performance. As part of the self-assessment, the Board evaluates its effectiveness with respect to a number of different aspects, including board structure and composition, communication and reporting, agenda setting and continuous improvement. From time to time, the Board may also mandate an external consultant to conduct an external Board effectiveness review rather than performing the annual review as a self-assessment only, in order to get an outside-in view of the Board's effectiveness and benchmark against best practices. On the proposal of the Chairman, the Board mandated an external consultant to perform a Board effectiveness review in 2022. This assessment was conducted in the fourth quarter of 2022 and included an in depth questionnaire completed by all Board members, interviews conducted with the Chairman, the individual Board members, the CEO and certain other Executive Board members and other internal experts, and the participation of the external consultants as observers in Board and Board committee meetings. The findings and recommendations from the external Board effectiveness review were presented and discussed at a Board meeting in December 2022 and addressed, among other topics, the Board's future roadmap and priorities, including focus areas for 2023,

with respect to strategy, the Group's operating model, culture, people development and succession planning and Board composition and committee structure. External Board effectiveness reviews took place in 2017 and 2020, in line with the Board's intention to perform an external Board effectiveness review at least every three years.

Board changes

In addition to Axel Lehmann assuming the role of Chairman as previously mentioned, Mirko Bianchi, Keyu Jin and Amanda Norton were elected as new non-executive Board members at the 2022 AGM and Amanda Norton was also elected as a new Compensation Committee member. Given his extensive finance experience at European financial institutions and former CFO roles, the Board appointed Mirko Bianchi as Chair of the Audit Committee. Richard Meddings, who previously served as Chair of the Audit Committee, was appointed by the Board as Chair of the Risk Committee. Other committee chair changes include the appointment of Clare Brady as Chair of the Conduct and Financial Crime Control Committee and Christian Gellerstad as Chair of the Compensation Committee. Christian Gellerstad was furthermore appointed as Vice-Chair and Lead Independent Director, succeeding Severin Schwan, who did not stand for re-election at the 2022 AGM. At the 2023 AGM, all current Board members are standing for reelection, and there are no new Board candidates proposed for election.

- Refer to "Members of the Board of Directors" table for an overview of all Board members and their current committee appointments.

Board activities

During 2022 and early 2023, the Board focused on a number of key areas, including but not limited to the activities described below. Specifically, the Board:

<u>Activity</u>	<u>Description</u>
Strategy and organization	<ul style="list-style-type: none">• monitored the implementation of the strategy and organizational changes decided as a result of the Group strategy review conducted in 2021 and announced in November 2021, including the mandates of the four business divisions and four regions• launched a further comprehensive strategic review in July 2022, building on themes agreed at the 2022 Board Strategy Workshop in June 2022, with the objective to consider alternatives that go beyond the conclusions of the 2021 strategic review, particularly given the changed economic and market environment, and closely supervised progress of the strategy through a special ad-hoc Board committee, the Investment Banking Strategy Committee (IBSC)• approved strategy and organizational changes resulting from the 2022 strategic review, including a radical restructuring of the Investment Bank, comprising the carve-out of CS First Boston as a capital markets and advisory business, an accelerated cost transformation, the creation of the CRU and a reallocation of capital to Wealth Management, Swiss Bank, Asset Management and a newly formed Markets business• reviewed and approved entering into definitive transaction agreements to sell a significant part of the SPG and other related financing businesses to Apollo Global Management (Apollo) as announced in November 2022• assessed and approved the acquisition of The Klein Group LLC, an investment banking boutique and registered broker-dealer affiliated with former Board member Michael Klein, representing an important step to progress the carve-out of CS First Boston• supervised the initial phase of the implementation of the strategy and organizational changes and received regular updates on the set-up of the CRU, the progress of the cost transformation program and the restructuring of the Investment Bank
People and culture	<ul style="list-style-type: none">• established, together with the Executive Board, a comprehensive risk culture framework based on the principle that “everyone is a risk manager”, which aims to change mindsets, reinforce risk aspects in decision-making and foster prudent risk-taking behaviors across the Group• received regular progress updates on the various risk culture initiatives, including bank-wide training on “Building a Risk Culture” and a risk culture dashboard, measuring progress linked to the risk culture framework, such as internal audit results and senior leadership role models• conducted dedicated senior talent review session with the full Board and held several employee engagement events together with the Executive Board
Board and Executive Board succession	<ul style="list-style-type: none">• nominated Mirko Bianchi, Keyu Jin and Amanda Norton as new Board members for election at the 2022 AGM• appointed new Executive Board members during 2022, including the roles of the CEO (Ulrich Körner), COO (Francesca McDonagh), CFO (Dixit Joshi), General Counsel (Markus Diethelm), regional CEO of Asia Pacific (Edwin Low) and CCO (Nita Patel)
Governance and supervision	<ul style="list-style-type: none">• approved the set-up of the IBSC as an ad hoc Board committee for the purposes of assisting the Board in overseeing the definition of a new investment banking strategy and approved its terms of reference• supervised the establishment and execution of the Strategic Regulatory Remediation program intended to strengthen our organization and deliver on regulatory programs• held dedicated sessions with senior officials from FINMA and the Federal Reserve on their respective annual assessments of the Group• regularly reviewed and discussed key regulatory correspondence and outcomes from the regulatory engagements of the Chairman, CEO and other Board and Executive Board members
Financial and risk management	<ul style="list-style-type: none">• decided to further strengthen the Group’s capital base and support its strategic transformation by completing two capital raises with aggregate gross proceeds of CHF 4 billion through the issuance of new shares to qualified investors and a rights offering to existing shareholders, both of which were approved at the EGM on November 23, 2022• closely monitored the Group’s liquidity status following the significant deposit and net asset outflows experienced during the fourth quarter of 2022 and measures taken by management to address the situation, including a comprehensive client outreach program• reviewed and approved the Group’s financial and capital plans and risk appetite for 2023 reflecting the Group’s strategic transformation and targets announced at the October 2022 strategy update
Board effectiveness	<ul style="list-style-type: none">• conducted a comprehensive external Board effectiveness review

Board committees

The Board has six standing committees: the Governance and Nominations Committee, the Audit Committee, the Compensation Committee, the Conduct and Financial Crime Control Committee, the Risk Committee and the Digital Transformation and Technology Committee. In addition, the Board has one advisory committee, the Sustainability Advisory Committee. Except for the Compensation Committee members, who are elected by the shareholders on an annual basis, the committee members are appointed by the Board for a term of one year.

At each Board meeting, the Chairs of the committees report to the Board about the activities of the respective committees. In addition, the minutes and documentation of the committee

meetings are accessible to all Board members. Each committee has its own charter, which has been approved by the Board. Each standing committee performs a self-assessment once a year, where it reviews its own performance against the responsibilities listed in its charter and the committee's objectives and determines any special focus objectives for the coming year.

The Board furthermore established an ad-hoc committee of the Board in 2022, the IBSC. The IBSC was formed for the purposes of providing close oversight and guidance on the definition of the future investment banking strategy and structure during the strategy review process. From August 1 through October 26, 2022, the IBSC usually met on a weekly basis. The IBSC was retired after the announcement of the Group's new strategy on October 27, 2022.

Governance and Nominations Committee

The primary function of the Governance and Nominations Committee is to act as a counselor to the Chairman, address key Group corporate governance issues and evaluate and recommend new Board candidates, as well as new Executive Board members.

<u>Topic</u>	<u>Description</u>
Membership	<ul style="list-style-type: none">• consists of the Chairman, the Vice-Chair and other members appointed by the Board• may include non-independent Board members; however, the majority of members must qualify as independent• currently consists of five members; all of our Governance and Nominations Committee members are independent
Meetings	<ul style="list-style-type: none">• generally meets on a monthly basis• the meetings are usually attended by the CEO• may also ask other members of management or specialists to attend a meeting
Main duties and responsibilities	<ul style="list-style-type: none">• acts as counselor to the Chairman and supports him in the preparation of Board meetings• addresses the corporate governance issues affecting the Group and develops and recommends to the Board corporate governance principles and such other corporate governance-related documents as it deems appropriate for the Group• reviews the independence of the Board members annually and recommends its assessment to the Board for final determination• is responsible for setting selection criteria for Board membership, which reflects the requirements of applicable laws and regulations, and for identifying, evaluating and nominating candidates for Board membership• guides the Board's annual performance assessment of the Chairman, the CEO and the members of the Executive Board• proposes to the Board the appointment, replacement or dismissal of members of the Executive Board as well as other appointments requiring endorsement by the Board• reviews succession plans with the Chairman and the CEO relating to Executive Board positions and is kept informed of other top management succession plans

Activities

During 2022 and early 2023, the Governance and Nominations Committee focused on a number of key areas, including but not limited to the activities described below. Specifically, the Governance and Nominations Committee:

<u>Activity</u>	<u>Description</u>
Board member succession	<ul style="list-style-type: none">• established selection criteria, conducted interviews with and assessed the qualifications and suitability of prospective Board member candidates• recommended Mirko Bianchi, Keyu Jin and Amanda Norton as new Board member nominees for approval by the Board prior to the 2022 AGM, who, collectively, bring significant experience to the Board with respect to finance, risk management and the Asian markets, particularly for China, and proposed Amanda Norton for election as a Compensation Committee member• proposed changes to the committee chairs post the 2022 AGM, including newly elected Board member Mirko Bianchi as Audit Committee Chair, Clare Brady as Conduct and Financial Crime Control Committee Chair, Christian Gellerstad as Compensation Committee Chair, and Richard Meddings as Risk Committee Chair• proposed the appointment of Christian Gellerstad as Vice-Chair and Lead Independent Director to succeed Severin Schwan, who did not stand for re-election at the 2022 AGM
Executive Board succession	<ul style="list-style-type: none">• drove the renewal of the Executive Board forward through the assessment and recommendation to the Board of Executive Board changes, including a CEO change, with the recommendation of Ulrich Körner as the new Group CEO• interviewed various internal and external candidates in connection with the Executive Board changes highlighted above
Advice and guidance	<ul style="list-style-type: none">• supported the Chairman in preparing for the Board's annual strategy workshop in 2022 together with the Executive Board, at which key strategic priorities were addressed, including the need for a more radical restructuring of the Investment Bank• reviewed and provided advice and guidance to the Chairman and CEO in advance of key decisions to be taken by the Board in connection with the strategy review, including the sale of a significant part of SPG to Apollo and the acquisition of The Klein Group LLC• provided guidance for the annual performance assessments of the Chairman and the CEO
Corporate governance	<ul style="list-style-type: none">• served as the primary Board oversight body for the Strategic Regulatory Remediation program and provided regular review and challenge to the management with respect to the set-up and progress of the program

- assessed the findings and recommendations of the 2022 external board effectiveness review with respect to Board composition, structure, long-term priorities and focus areas for 2023
- engaged external advisors to provide independent, expert advice to the Board on select strategy and corporate governance topics

Audit Committee

The primary function of the Audit Committee is to assist the Board in fulfilling its oversight role by monitoring and assessing the integrity of the financial statements of the Group.

<u>Topic</u>	<u>Description</u>
Membership	<ul style="list-style-type: none">• consists of at least three members of the Board, all of whom must be independent; currently consists of five members, all of whom are independent• the Risk Committee Chair is generally appointed as one of the members of the Audit Committee• stipulates that all Audit Committee members must be financially literate. The US Securities and Exchange Commission (SEC) requires disclosure about whether a member of the Audit Committee is an audit committee financial expert within the meaning of the Sarbanes-Oxley Act of 2002 (SOX). The Board has determined that Mirko Bianchi is an audit committee financial expert• members may not serve on the Audit Committee of more than two other companies, unless the Board deems that such membership would not impair their ability to serve on our Audit Committee
Meetings	<ul style="list-style-type: none">• the Audit Committee holds meetings at least once each quarter, prior to the publication of our consolidated financial statements• typically a number of additional meetings and workshops are convened throughout the year• meetings are attended by management representatives, as appropriate, the Head of Internal Audit and senior representatives of the external auditor• a private session with Internal Audit and the external auditors is regularly scheduled to provide them with an opportunity to discuss issues with the Audit Committee without management being present
Main duties and responsibilities	<ul style="list-style-type: none">• monitors and assesses the overall integrity of the financial statements as well as disclosures of the financial condition, results of operations and cash flows• monitors the adequacy of the financial accounting and reporting processes and the effectiveness of internal controls• monitors processes designed to ensure compliance by the Group in all significant respects with legal and regulatory requirements• monitors the adequacy of the management of non-financial risks jointly with the Risk Committee• reviews jointly with the Conduct and Financial Crime Control Committee any significant matters related to compliance and conduct• monitors the qualifications, independence and performance of the external auditors and of Internal Audit• is regularly informed about significant projects and initiatives aimed at further improving processes and receives regular updates on significant legal, compliance, disciplinary, tax and regulatory matters• has established procedures for the receipt, retention and treatment of complaints of a significant nature regarding accounting, internal accounting controls, auditing or other matters alleging potential misconduct, including a whistleblower hotline• reviews the annual Sustainability Report and is informed about evolving standards and practices of sustainability reporting• reports committee activities to the Board as deemed appropriate; annually performs a self-assessment and a review of its charter

Activities

During 2022 and early 2023, the Audit Committee focused on a number of key areas, including but not limited to the activities described below. Specifically, the Audit Committee:

<u>Activity</u>	<u>Description</u>
Quarterly and annual financial reporting	<ul style="list-style-type: none">• performed its regular review of the quarterly and annual financial results and related accounting, reporting and internal control and disclosure matters, as well as matters of significant judgment• reviewed and endorsed the Sustainability Report, including TCFD disclosures, the Group's Tax Contribution Report, and the Modern Slavery and Human Trafficking Transparency Statement• held specific reviews on certain accounting and reporting matters of particular relevance in 2022 and early 2023, such as the reporting and disclosure following the new organizational structures and the respective restatement of prior periods, the impairment of the deferred tax assets, the increase of litigation provisions and matters raised in SEC comment letters• held regular reviews of the Bank parent company's financial statements• held various educational sessions (some jointly with the Risk Committee) on selected topics, for example on disclosure requirements and SOX thematic recommendations

Internal and external audit

- received regular updates from the Head of Internal Audit on key audit findings and held a dedicated workshop with the Internal Audit senior leadership team about their risk assessments for the organization, emerging risk and control themes and audit planning and methodology, as well as on organizational matters of the Internal Audit function, such as talent and succession planning
- received regular updates and reports from PricewaterhouseCoopers AG (PwC)

Legal, regulatory, compliance and conduct matters

- received updates at every meeting from the General Counsel on significant litigation, investigations and regulatory enforcement matters
- regular reports on key regulatory developments and interactions with our main regulators from the Head of Regulatory Relations
- maintained a focus at every meeting on key compliance risks and associated internal controls, as well as key compliance programs
- reviewed the Group's whistleblowing processes and governance, as well as select cases and their resolution
- received, jointly with the Conduct and Financial Crime Control Committee, updates on significant matters related to compliance and conduct
- reviewed, jointly with the Risk Committee, the annual assessment of the effectiveness of the internal control system and recommended approval by the Board of the adequacy of the internal control system, according to the requirements of FINMA

Infrastructure and key change programs

- conducted in-depth reviews of the payments processes and systems landscape
- received an update on financial reporting improvement initiatives, including accounting quality assurance review, progress on reducing general ledger adjustments and target operating model
- reviewed, jointly with the Risk Committee, the Group's key change programs, including the progress of the Strategic Regulatory Remediation program, the Group's data management strategy, as well as the progress related to the IBOR (interbank offered rate) transition program
- reviewed the scope and governance of the newly established NCU and the governance around restructuring costs

Internal Audit

Our Internal Audit function comprises a team of approximately 400 professionals, virtually all of whom are directly involved in auditing activities. The Head of Internal Audit reports directly to the Audit Committee Chair and the Audit Committee directs and oversees the activities of the Internal Audit function. In December 2021, the Board, upon the recommendation of the Audit Committee, appointed Mark Hannam as the new Head of Internal Audit, succeeding Rafael Lopez Lorenzo, who was appointed as CCO and member of the Executive Board. Mr. Hannam joined Credit Suisse in April 2022.

Internal Audit performs an independent and objective assurance function that is designed to add value to our operations. Using a systematic approach, the Internal Audit team evaluates and enhances the effectiveness of Credit Suisse's risk management, control and governance processes.

Internal Audit is responsible for carrying out periodic audits in line with the Internal Audit Charter, which is approved by the Audit Committee and available publicly. It regularly and independently assesses the risk exposure of our various business activities, taking into account industry trends, strategic and organizational decisions, best practice and regulatory matters. Based on the results of its assessment, Internal Audit develops detailed annual audit objectives, defining key risk themes and specifying resource requirements for approval by the Audit Committee.

As part of its efforts to achieve best practice, Internal Audit regularly benchmarks its methods and tools against those of its peers. In addition, it submits periodic internal reports and summaries thereof to the management teams as well as the Chairman and the Audit Committee Chair. The Head of Internal Audit provides at least quarterly updates to the Audit Committee or more frequently as appropriate. Internal Audit coordinates its operations with the activities of the external auditor for maximum effect.

The Audit Committee annually assesses the performance and effectiveness of the Internal Audit function. For 2022, the Audit Committee concluded that the Internal Audit function was effective and independent, with the appropriate resources to deliver on the Internal Audit Charter.

External Audit

The Audit Committee is responsible for the oversight of the external auditor. The external auditor reports directly to the Audit Committee and the Board with respect to its audit of the Group's financial statements and is ultimately accountable to the shareholders. The Audit Committee pre-approves the retention of, and fees paid to, the external auditor for all audit and non-audit services.

- Refer to "External audit" in Audit for further information.

Risk Committee

The Risk Committee is responsible for assisting the Board in fulfilling its oversight responsibilities of risk management. These responsibilities include the oversight of the enterprise-wide risk management and practices, the promotion of a sound risk culture with clear accountability and ownership, the review of key risk and resources and the assessment of the effectiveness and efficiency of the Group's Risk function.

<u>Topic</u>	<u>Description</u>
Membership	<ul style="list-style-type: none">• consists of at least three members of the Board; currently consists of five members, all of whom are independent• the Audit Committee Chair is generally appointed as one of the members of the Risk Committee
Meeting	<ul style="list-style-type: none">• holds at least four ordinary meetings per year, pursuant to its charter• usually convenes for additional meetings throughout the year in order to appropriately discharge its responsibilities• the CEO, CRO and other Group business or corporate function representatives will usually attend the meetings, as appropriate
Main duties and responsibilities	<ul style="list-style-type: none">• reviews and assesses the integrity and adequacy of the Risk function of the Group including risk measurement approaches• reviews and calibrates risk appetite at the Group level and at the level of key businesses as well as major risk concentrations• approves the list of countries and proposes the limits and risk appetites allocated to such countries to the Board• assesses the capital and liquidity planning, reviews the contingency funding plan and proposes these plans to the Board for approval• regularly reviews relationships with top clients and material transactions from a risk perspective and also reviews the reports on material risk matters by the risk function, significant legal entities, businesses and corporate functions• reviews, jointly with the Audit Committee, the annual assessment of the adequacy and effectiveness of the internal control system,• the status of major infrastructure and committed change programs, as well as significant matters of non-financial risk• reviews and assesses the current state and evolution of the risk culture• mandates the Credit Risk Review function to independently assess credit risk management practices• reports committee activities to the Board as deemed appropriate; annually performs a self-assessment and a review of its charter

Activities

During 2022 and early 2023, the Risk Committee focused on a number of key areas, including but not limited to the activities described below. Specifically, the Risk Committee:

<u>Activity</u>	<u>Description</u>
Risk transformation	<ul style="list-style-type: none">• received regular updates from the newly appointed Group CRO on the risk function transformation, including the first 100 days plan, the risk effectiveness review, the planned organizational changes and the forward-looking priorities• reviewed the stature of the risk function through regular Group CRO organizational updates covering senior management hires and nominations, attrition levels across all locations and seniority levels, as well as through briefings from the risk senior executives• promoted and reviewed the progress in strengthening the risk culture, including the first line of defense responsibility and account-ability and the promotion of a risk culture mindset leveraging the bank's purpose, values and code of conduct• promoted and monitored the development and implementation of a firm-wide risk return measure across the organization for assessing clients, transactions and businesses in a consistent manner

Risk appetite, risk monitoring and risk management frameworks

- reviewed the risk implications of the new Group strategy on the bank's risk profile and monitored the financial and non-financial risks associated with the execution
- reviewed and recommended the proposed changes to risk appetite, triggered by the evolving geopolitical environment and the bank's strategy positioning, and ensured alignment with the Group business strategy
- endorsed the revised risk appetite framework and limits for 2022, as well as the Group's strategic risk objectives and the risk appetite statement for 2023, including country risk limits
- regularly reviewed top clients, key concentrations, material transactions, businesses, as well as geopolitical events of relevance, including a second line of defense assessment
- supported the Board in reviewing strategically important topics, including adequacy of capital, liquidity and funding of both the Group and the Bank parent company
- monitored the implementation of risk governance enhancements to improve the review, approval and escalation of risk matters
- monitored aspects of the risk management framework, with respect to position, reputational, model and liquidity risk and stress testing
- reviewed, jointly with the Audit Committee, non-financial risk matters, including data management, payments processing, people and outsourcing and endorsed the internal control framework
- regularly reviewed, jointly with the Audit Committee, risks related to Credit Suisse AG, including financial performance, as well as capital and liquidity positions
- received briefings on the energy transition frameworks and commitments and reviewed the associated restrictions on certain business activities in carbon-intensive sectors

Strategic remediation programs and key initiatives

- closely monitored the remediation triggered by the Archegos event, with a deep dive into certain activities such as the first line of defense accountability and counterparty risk management
- reviewed, jointly with the Audit Committee, the set-up of the Strategic Regulatory Remediation Office and regularly monitored the progress in key regulatory remediation themes, including counterparty risk, liquidity and clients
- received regular updates on key change programs, including the Fundamental Review of the Trading Book and the IBOR transition programs, jointly with the Audit Committee
- reviewed, jointly with the Audit Committee, the scope and governance of the newly established NCU
- reviewed, jointly with the Digital Transition and Technology Committee, the risk infrastructure transformation, as well as risks related to IT security and cyber risk and related mitigation measures

Compensation Committee

The primary function of the Compensation Committee is to determine, review and propose compensation and related principles for the Group.

<u>Topic</u>	<u>Description</u>
Membership	<ul style="list-style-type: none">• consists of at least three members of the Board, all of whom must be independent• currently consists of four members, all of whom are independent• members are individually elected by the AGM for a period of one year
Meetings	<ul style="list-style-type: none">• holds at least four meetings per year, pursuant to its charter; additional meetings may be scheduled at any time• meetings are attended by external advisors and management representatives, as appropriate
Main duties and responsibilities	<ul style="list-style-type: none">• reviews the Group's compensation policy• establishes new compensation plans or amending existing plans and recommends them to the Board for approval• reviews the performance of the Group and the divisions and recommends the variable compensation pools for the Group and the divisions to the Board for approval• proposes individual compensation for the Board members to the Board• discusses and recommends to the Board the Executive Board members' compensation, based on proposals by the CEO, and a proposal for the CEO's compensation• reviews and recommends to the Board the compensation for individuals being considered for an Executive Board position• reviews and endorses the annual compensation report submitted for a consultative vote by shareholders at the AGM• is authorized to retain outside advisors, at the Group's expense, for the purpose of providing guidance to the Compensation Committee as it carries out its responsibilities. Prior to their appointment, the Compensation Committee conducts an independence assessment of the advisors pursuant to the rules of the SEC and the listing standards of the NYSE and Nasdaq• reports committee activities to the Board as deemed appropriate; annually performs a self-assessment and a review of its charter

Activities

During 2022 and early 2023, the Compensation Committee focused on a number of key areas, including but not limited to the activities described below. Specifically, the Compensation Committee:

<u>Activity</u>	<u>Description</u>
Executive Board and Board compensation	<ul style="list-style-type: none">• monitored the implementation of the Executive Board compensation design for 2022 and approved refinements for 2023 and beyond, considering investor feedback and market developments• approved a one-time Transformation Award to be granted to the Executive Board and other key members of management that is linked to the successful implementation of the Group's strategic objectives• reviewed and recommended approval by the Board of the compensation arrangements for the incoming and outgoing Executive Board members during 2022• reviewed and recommended the compensation proposals for the Board and Executive Board to be submitted for approval by share- holders at the 2022 and 2023 AGMs
Shareholder engagement and Say-on-Pay	<ul style="list-style-type: none">• continued proactive engagement with shareholders and proxy advisors on compensation, including holding meetings with shareholders involving the Compensation Committee Chair, the Global Head of People and, in part, the Chairman; feedback and key issues resulting from these meetings were discussed within the full committee• considered investor feedback specific to the Transformation Award and introduced respective adjustments to the proposal to share- holders in the lead up to the 2023 AGM
Group compensation	<ul style="list-style-type: none">• determined the variable compensation pool for the Group for 2022, including the allocations to the divisions and corporate functions, which was in aggregate 50% below the pool from the prior year in consideration of the Group's poor financial performance in 2022• reviewed the employee compensation framework and agreed on certain simplification measures, including the decision to discontinue performance share awards for 2023 onwards• monitored the effectiveness of retention measures implemented during the prior year and employee attrition trends

- reviewed and endorsed enhancements to the Significant Events process introduced in the prior year to improve risk and accountability in compensation and reinforce a risk culture mindset
 - received and assessed periodic reports on industry and regulatory developments, including executive pay trends, competitor practices, key corporate governance developments and regulatory themes with implications for compensation
 - acknowledged and regularly discussed compensation related matters raised by regulators
- Refer to “The Compensation Committee” in V – Compensation – Group compensation framework for information on our compensation approach, principles and objectives and outside advisors.

Conduct and Financial Crime Control Committee

The primary function of the Conduct and Financial Crime Control Committee is to assist the Board in fulfilling its oversight responsibilities with respect to the Group's exposure to financial crime risk.

<u>Topic</u>	<u>Description</u>
Membership	<ul style="list-style-type: none">• consists of at least three members of the Board; currently consists of four members, all of whom are independent• may include non-independent members; however, the majority of members must qualify as independent• the Chair of the Audit Committee is generally appointed as one of the members of the Conduct and Financial Crime Control Committee
Meetings	<ul style="list-style-type: none">• holds at least four meetings per year, pursuant to its charter• may convene for additional meetings throughout the year in order to appropriately discharge its responsibilities• meetings are attended by management representatives, representatives of Internal Audit and the Group's external auditors, as appropriate
Main duties and responsibilities	<ul style="list-style-type: none">• reviews and assesses the Group's overall compliance framework for addressing financial crime risk, including policies, procedures and organizational set-up• monitors and assesses the effectiveness of financial crime compliance programs, including those with respect to the following areas: anti-money laundering, client identification and know-your-client procedures, client on and off boarding, politically exposed persons, economic and trade sanctions, anti-bribery, anti-corruption and client tax compliance• reviews the status of the relevant policies and procedures and the implementation of significant initiatives focused on improving conduct and vigilance within the context of combatting financial crime, including employee awareness and training programs• reviews and monitors investigations into allegations of financial crime or other reports of misconduct pertaining to the areas specified above• reviews with management, Internal Audit and the external auditors audit findings and recommendations with respect to the areas specified above, including annual regulatory audit reports• receives regular updates by management on regulatory, legislative and industry specific developments with respect to the areas specified above• reviews jointly with the Audit Committee and/or Risk Committee any matters for which a joint review is determined to be appropriate, including the annual compliance risk assessment and the Group's framework for addressing conduct risk• provides support to the Compensation Committee and advice, as relevant and appropriate, with respect to the areas specified above as part of the Group's compensation process• reports committee activities to the Board as deemed appropriate; annually performs a self-assessment and a review of its charter

Activities

During 2022 and early 2023, the Conduct and Financial Crime Control Committee focused on a number of key areas, including but not limited to the activities described below. Specifically, the Conduct and Financial Crime Control Committee:

<u>Activity</u>	<u>Description</u>
Financial Crime Compliance effectiveness	<ul style="list-style-type: none">• reviewed comprehensive financial crime compliance reporting packages from management at every meeting, including financial crime regulation developments, key financial crime compliance performance indicators, the application of the sanctions regimes and global investigations and escalated concerns• conducted focused sessions on specific financial crime compliance programs, including processes regarding Politically Exposed Persons• received updates from Internal Audit on financial crime compliance-related findings in Internal Audit reports and reviewed the results of the anti-money laundering regulatory audits with PwC• held dedicated sessions during 2022 with the divisional CEOs to discuss key financial crime related initiatives and risk culture aspects in their respective divisions
Regulatory driven enhancement	<ul style="list-style-type: none">• continued to closely monitor the progress on our commitments to enhance anti-money laundering and related financial crime compliance processes in connection with FINMA enforcement matters

programs

- reviewed the delivery of the remediation efforts to address an enforcement action of the Federal Reserve Bank of New York (FRBNY) and the New York Department of Financial Services issued in November 2020 regarding enhancements to financial crime compliance in our US operations
- held review sessions and challenged the comprehensive program to improve anti-fraud controls
- engaged in dialogue with senior representatives of FINMA on significant matters of financial crime compliance at Credit Suisse

**Financial Crime
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governance**

- assessed the financial crime compliance organizational and governance changes during 2022 following the appointment of a new CCO and other key leadership changes
- held several joint sessions with the Audit Committee, including a joint review of Credit Suisse's Foreign Account Tax Compliance Act and US cross-border compliance activities and the shift of operational activities regarding client lifecycle controls from the second to the first line of defense
- introduced a coordination of financial crime compliance among the committee chairs of the Group's major subsidiaries responsible for the oversight of financial crime compliance

Digital Transformation and Technology Committee

The Digital Transformation and Technology Committee was established in January 2022 with the primary function of assisting the Board in setting, steering and overseeing the execution of the bank's data, digitalization and technology strategy. The committee is tasked with overseeing the strategically aligned execution of the bank's major digitalization and technology initiatives and setting governance standards for digital transformation across the Group.

<u>Topic</u>	<u>Description</u>
Membership	<ul style="list-style-type: none">• consists of not less than three members; currently consists of four members, all of whom are independent• may include non-independent members; however, the majority of members must qualify as independent
Meetings	<ul style="list-style-type: none">• holds at least four ordinary meetings per year, pursuant to its charter• the Group CEO and the Group Chief Technology and Operations Officer both shall usually attend the meetings
Main duties and responsibilities	<ul style="list-style-type: none">• oversees and drives the strategic alignment of the Group's technology investments and spend as well as the governance standards for digital transformation across the Group• oversees the execution of the Group's major digitalization and technology initiatives and tracks the progress made• identifies and assesses opportunities and threats to the Group's business model from the digital transformation• works closely with the Risk Committee and Audit Committee in regard to overseeing technology-driven risks• obtains independent external perspectives and thought leadership to select technology trends with an impact on the Group and the financial services industry more broadly; and in relation to these trends, critically examines the strategies and activities within the Group• review reports by the Chief Technology and Operations Officer on material matters related to digital transformation and technology• reports committee activities to the Board as deemed appropriate; annually performs a self-assessment and a review of its charter

Activities

During 2022 and early 2023, the Digital Transformation and Technology Committee focused on a number of key areas, including but not limited to the activities described below. Specifically, the Digital Transformation and Technology Committee:

<u>Activity</u>	<u>Description</u>
Digital Transformation	<ul style="list-style-type: none">• endorsed the Engineering Strategy defining the core Group-wide capabilities to enable digital transformation• reviewed the CTOO transformation program to deliver on CTOO priorities, including digital transformation acceleration, and regularly monitored the progress made on digital milestones commitments• received updates on select business initiatives illustrating the digital aspirations and transformation and was presented with target architecture for select corporate functions including Risk and Compliance
Technology	<ul style="list-style-type: none">• received regular briefings by the CTOO on technology initiatives progress, including achieved milestones and main challenges• reviewed the proposed governance and framework for investment prioritization, including investments categories and prioritization criteria• received updates on the IT spend as part of various CTOO and business updates and provided recommendations as required• reviewed the resourcing strategy across the CTOO organization and proposal for vendor management efficiency• received deep dive reports on select focus topics including Agile implementation, Payments as a Service, Data Shared Services Strategy and Revised framework for the capitalization of internally developed software, having the Audit and Risk Committee Chairs attend the relevant agenda items
Technology driven risks	<ul style="list-style-type: none">• held a joint session with the Risk Committee to discuss the Risk function IT infrastructure strategy, as well as IT security and cyber risk topics• regularly informed the Board on the committee's activities, including technology-driven risks

Sustainability Advisory Committee

The Sustainability Advisory Committee, established in February 2021, assists the Board, in an advisory capacity, in fulfilling its oversight duties in respect of the development and execution of the Group's sustainability strategy and ambitions, and monitoring and assessing the effectiveness of the respective sustainability programs and initiatives. Its responsibilities include advising on the sustainability strategy and ambitions and ensuring actions are being taken to accomplish them, advising on sustainability metrics and tracking and, monitoring related progress, and the engagement with key internal and external stakeholders, including

clients, employees, investors, ESG rating agencies, non-governmental organization, policymakers, regulators, and representatives of the business community and society. Activities of the Sustainability Advisory Committee during 2022 included periodic reviews of the strategy execution progress, receiving updates on the bank's progress with respect to ESG products, services, and advisory, the Diversity & Inclusion strategy and climate-related and sustainability risks, as well as holding a targeted session on the mitigation of greenwashing risk. The committee also received progress updates on the 2022 Sustainability Report, as well as on the 2022 TCFD Report.

Biographies of the Board



Axel P. Lehmann
Born 1959
Swiss Citizen
Board member since 2021
Chairman of the Board

Professional history

2021–present	Credit Suisse ¹ Chairman and Chair of the Governance and Nominations Committee (2022–present, member since 2021) Chair of the Risk Committee (2022, member 2021 – 2022) Member of the Conduct and Financial Crime Control Committee (2021 – 2022) Member of the Audit Committee (2021 – 2022)
2009 – 2021	UBS Member of the Group Executive Board of UBS Group AG (2016 – 2021) President Personal & Corporate Banking and President UBS Switzerland (2018 – 2021) Group Chief Operating Officer (2016 – 2017) Member of the Board of Directors of UBS AG (2009 – 2015) and UBS Group AG (2014 – 2015), Member of the Risk Committee (2009 – 2015) and the Governance and Nominating Committee (2011 – 2013)
1996 – 2015	Zurich Insurance Group Ltd. Member of the Group Executive Committee (2002 – 2015) Group Chief Risk Officer (2009 – 2015), with additional responsibility for Group IT (2008 – 2010), Regional chairman Europe (2011 – 2015) and Regional chairman Europe, Middle East and Africa (2015 – 2015), chairman of the Board of Farmers Group Inc., CA (2011 – 2015)
1995	Swiss Life, Head of Strategic Planning and Controlling
1985 – 1995	Institute of Insurance Economics at the University of St. Gallen

Education

2000	Advanced Management Program, Wharton School, University of Pennsylvania
1996	Post-doctorate degree in Business Administration (Habilitation), University of St. Gallen
1989	PhD in Economics and Business Administration, University of St. Gallen



Mirko Bianchi
Born 1962
Swiss and US Citizen
Board member since 2022

Professional history

2022–present	Credit Suisse Chair of the Audit Committee (2022–present) Member of the Governance and Nominations Committee (2023–present) Member of the Risk Committee (2022–present) Member of the Conduct and Financial Crime Control Committee (2022–present)
2009 – 2021	UniCredit CEO Group Wealth Management & Private Banking (2020 – 2021) Group Co-CFO (2019 – 2020) Group CFO (2016 – 2019) CFO Bank Austria & Central European Countries (2015 – 2016) Head of Group Finance (2009 – 2015)
2000 – 2009	UBS, Managing Director, Global Head of Ratings Advisory
1998 – 2000	Deutsche Bank AG, Director, Debt Capital Markets – Ratings Advisory
1993 – 1998	Moody's Investor Services, Vice President, Senior Investor Analyst
Prior to 1993	BCI Capital, Equity Analyst

Education

1994	Executive Program in Financial Analysis, Northwestern University, Chicago, US
1991	MBA, Fordham University, New York, US
1988	Master of Science (M.Sc.) in Food Chemical and Processing Engineering, ETH Zurich

Areas of expertise

Finance and/or Audit; and Risk, Legal and/or Compliance

Other activities and functions

GSTS – Gui Sheng Tang Sinomedica Holding SA, board member
European Audit Committee Leadership Network, member

1984 Master's degree in Economics and Business
Administration, University of St. Gallen

Areas of expertise

Client-Facing Business; Risk, Legal and/or Compliance; and
Government, Regulatory and/or Academia

Other activities and functions

Credit Suisse Foundation, chair¹

Swiss Bankers Association (SBA), board member, board of directors
committee member and audit committee member¹

Swiss Finance Council (SFC), board member¹

Institute of International Finance (IIF), board member¹

European Financial Services Round Table (EFR), board member¹

University of St. Gallen (HSG), adjunct professor and international
advisory board member

Institute of Insurance Economics at the University of St. Gallen,
chairman of the executive board

Swiss-American Chamber of Commerce, member

¹ Mr. Lehmann performs functions in these organizations in his
capacity as Chairman.

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Iris Bohnet
Born 1966
Swiss Citizen
Board member since 2012

Professional history

2012–present Credit Suisse
Chair of the Sustainability Advisory Committee (2021–present)
Member of the Compensation Committee (2012–present)
Member of the Innovation and Technology Committee (2015 – 2021)

1998–present Harvard Kennedy School
Albert Pratt Professor of Business and Government (2018–present)
Co-Director of the Women and Public Policy Program (2018–present), Director (2008 – 2018)
Academic Dean (2018 – 2021, 2011 – 2014)
Professor of public policy (2006 – 2018)
Associate professor of public policy (2003 – 2006)
Assistant professor of public policy (1998 – 2003)

1997 – 1998 Haas School of Business, University of California at Berkeley, visiting scholar

Education

1997 Doctorate in Economics, University of Zurich, Switzerland

1992 Master’s degree in Economic History, Economics and Political Science, University of Zurich, Switzerland

Areas of expertise

People, Culture and/or Compensation; ESG; and Government, Regulatory and/ or Academia

Other activities and functions

Publicis Groupe Diversity Progress Council, member (Listed company)
Economic Dividends for Gender Equality (EDGE), advisory board member
We Shape Tech, advisory board member
Women in Banking and Finance, patron
UK Government Equalities Office/BIT, advisor



Clare Brady
Born 1963
British Citizen
Board member since 2021

Professional history

2021–present Credit Suisse
Member of the Sustainability Advisory Committee (2022–present)
Member of the Audit Committee (2021–present)
Chair of the Conduct and Financial Crime Control Committee (2022–present, member since 2021)
Member of the Board of Credit Suisse International and Credit Suisse Securities (Europe) Limited (UK subsidiaries) (2021)

2014 – 2017 International Monetary Fund (IMF), Director of Internal Audit

2009 – 2013 World Bank Group, Vice President and Auditor General

2005 – 2009 Deutsche Bank AG
Managing Director, Group Audit, Asia Pacific Regional Head (2007 – 2009)
Managing Director, Group Audit, UK Regional Head and Business Partner for Global Banking and Chief Administration Officer (2005 – 2006)

2002 – 2005 Bank of England, The Auditor

2001 – 2002 Barclays Capital, Global Head of Internal Audit

2000 – 2001 HSBC, Global Head of Compliance, Private Banking

1995 – 2000 Safra Republic Holdings, Chief Auditor

1995 – 2000 Republic National Bank of New York (RNBNY), Director of European Audit, Senior Vice President

Prior to 1995 First National Bank of Chicago, Vice President and Regional Head of Europe and Asia Pacific Bank of New York, Auditor
National Audit Office, UK, Auditor

Education

1994 Chartered Governance Professional (ACG), Chartered Governance Institute, UK

1987 Bachelor of Science (B.Sc. Hons) in Economics, London School of Economics, UK

Areas of expertise

Finance and/or Audit; Risk, Legal and/or Compliance; and Government, Regulatory and/or Academia

Other activities and functions

Fidelity Asian Values plc, non-executive director, senior independent director (SID) and member of the audit committee, the management engagement committee and the nominations committee (Listed company)
The Golden Charter Trust and the Golden Charter Trust Limited, trustee and non-executive director, respectively, and member of the audit committee and nominations and remuneration committee

International Federation of Red Cross and Red Crescent Societies (IFRC), member of the audit and risk commission



Christian Gellerstad
Born 1968
Swiss and Swedish Citizen
Board member since 2019

Professional history

2019–present Credit Suisse
Chair of the Compensation Committee (2022–present, member since 2019)
Member of the Digital Transformation and Technology Committee (2022–present)
Member of the Conduct and Financial Crime Control Committee (2019–present, chair 2020 – 2022)
Member of the Governance and Nominations Committee (2020–present)
Member of the Board of Credit Suisse (Schweiz) AG (Swiss subsidiary) (2021-present)

1994 – 2018 Pictet Group
CEO, Pictet Wealth Management (2007 – 2018)
Executive Committee Member, Banque Pictet & Cie SA, Geneva (2013 – 2018)
Equity Partner, Pictet Group (2006 – 2018)
CEO and Managing Director Banque Pictet & Cie (Europe) S.A., Luxembourg (2000 – 2007)
Deputy CEO and Senior Vice President, Pictet Bank & Trust Ltd., Bahamas (1996 – 2000)
Financial Analyst & Portfolio Manager, Pictet & Cie, Geneva (1994 – 1996)

Prior to 1994 Cargill International, Emerging Markets Trader

Education

2019 Board Director Diploma, International Institute for Management Development (IMD), Switzerland

1996 Certified International Investment Analyst (CIIA) and Certified Portfolio Manager and Financial Analyst (AZEK)

1993 Master in Business Administration and Economics, University of St. Gallen (HSG), Switzerland

Areas of expertise

Client-Facing Business; and Investment Management

Other activities and functions

Investis Holding SA, board member (Listed company)
Elatior SA, chairman
Nubica SA, board member
FAVI SA, board member
AFICA SA, board member



Keyu Jin
Born 1982
Chinese Citizen
Board member since 2022

Professional history

2022–present Credit Suisse
Member of the APAC Advisory Council (2022–present)
Member of the Risk Committee (2022–present)
Member of the Digital Transformation and Technology Committee (2022–present)

2009–present The London School of Economics
Tenured Associate Professor of Economics (2013–present)
Assistant Professor of Economics (2009 – 2012)

2016 – 2017 Tsinghua University, Visiting Professor of Economics

2015 Berkeley University, Visiting Professor of Economics

2012 – 2013 Yale University, Visiting Professor of Economics

2011 – 2012 International Monetary Fund (IMF), Visiting Scholar

2011 – 2012 Moore Capital, Consultant

2009 Morgan Stanley, Research Department

2008 Federal Reserve Bank of New York, Research Department

2003 World Bank Group, Economist

2002 Goldman Sachs International, Investment Banking Analyst

2001 Morgan Stanley, Equity Research

2000 J.P. Morgan, Derivatives

Education

2009 PhD in Economics, Harvard University, US

2005 MA in Economics, Harvard University, US

2004 BA in Economics, Harvard University, US

Areas of expertise

Government, Regulatory and/or Academia

Other activities and functions

AInnovation Technology Group, non-executive director (Listed company)
Richemont Group, non-executive director (Listed company)
Stanhope-Forbes Family Trust, non-executive director

Tsampéhro SA, board member

Lucerne Festival, member of the board of trustees

Fondation G-F. Barras European Masters, member of the board of trustees

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Shan Li
Born 1963
Chinese Citizen
Board member since 2019

Professional history

- 2019–present Credit Suisse
Member of the APAC Advisory Council (2022–present)
Member of the Compensation Committee (2022–present)
Member of the Risk Committee (2019–present)
- 2020–present Chinastone Group Limited, chairman and CEO
- 2015–present Silk Road Finance Corporation Limited, Hong Kong, member of the board
- 2010–present Chinastone Capital Management Limited, Shanghai, chairman and CEO
- 2005–present San Shan (HK) Ltd., Founding Partner
- 2013 – 2015 China Development Bank, Beijing, chief international business advisor
- 2010 – 2011 UBS Asia Investment Bank, Hong Kong, vice chairman
- 2001 – 2005 Bank of China International Holdings, Hong Kong, CEO
- 1999 – 2001 Lehman Brothers Asia, Hong Kong, Head of China Investment Banking
- 1998 – 1999 China Development Bank, Beijing, Deputy Head of Investment Bank Preparation Leading Group
- 1993 – 1998 Goldman Sachs
Executive Director, Goldman Sachs International, London (1997 – 1998)
Executive Director, Goldman Sachs (Asia), Hong Kong (1995 – 1997)
International Economist, Goldman Sachs & Co., New York (1993 – 1995)
- 1993 Credit Suisse First Boston, New York, Associate

Education

- 1994 PhD in Economics, Massachusetts Institute of Technology (MIT)
- 1988 MA in Economics, University of California, Davis
- 1986 BS in Management Information Systems, Tsinghua University, Beijing

Areas of expertise

Client-Facing Business; and Government, Regulatory and/or Academia



Seraina Macia
Born 1968
Swiss, Australian and US Citizen
Board member since 2015

Professional history

- 2015–present Credit Suisse
Member of the Digital Transformation and Technology Committee (2022–present)
Member of the Audit Committee (2021–present, 2015 – 2018) Member of the Risk Committee (2018 – 2021)
- 2020–present Joyn Insurance, CEO and co-founder
- 2017 – 2020 Blackboard U.S. Holdings, Inc. (AIG Corporation)
Executive vice president of AIG & CEO of Blackboard (AIG technology-focused subsidiary; formerly Hamilton USA)
- 2016 – 2017 Hamilton Insurance Group, CEO Hamilton USA
- 2013 – 2016 AIG Corporation
Executive vice-president of AIG and CEO Regional Management & Operations of AIG, New York (2015 – 2016)
CEO and President of AIG EMEA, London (2013 – 2016)
- 2010 – 2013 XL Insurance North America, chief executive
- 2002 – 2010 Zurich Financial Services
President Specialties Business Unit, Zurich North America Commercial, New York (2007 – 2010)
CFO Zurich North America Commercial, New York (2006 – 2007)
Various positions, among others: head of the joint investor relations and rating agencies management departments; head of rating agencies management; senior investor relations officer (2002 – 2008)
- 2000 – 2002 NZB Neue Zuercher Bank,
founding partner and financial analyst
- 1990 – 2000 Swiss Re
Rating agency coordinator, Swiss Re Group (2000)
Senior underwriter and deputy head of financial products, Melbourne (1996 – 1999)
Various senior underwriting and finance positions, Zurich (1990 – 1996)

Education

- 2001 Chartered Financial Analyst (CFA), CFA Institute, US
- 1999 MBA, Monash Mt. Eliza Business School, Australia
- 1997 Postgraduate certificate in Management, Deakin University, Australia

Other activities and functions

Beijing International Wealth Management Institute, chairman

Chinese Financial Association of Hong Kong, vice chairman

Bauhinia Party, co-founder

13th National Committee of the Chinese People's Political Consultative Conference (CPPCC), member

MIT Economics Visiting Committee, member

Tsinghua Institute for Governance Studies, vice chairman

MIT Sloan Finance Advisory Board, member

Harvard University, Kennedy School Dean's Council member

Areas of expertise

Client-Facing Business, Finance and/or Audit; and Digitalization and/or Technology

Other activities and functions

Portage Fintech Acquisition Corporation, board member (Listed company)

BanQu, chair

CFA Institute, member

Food Bank for New York City, chair

Young Presidents Organization, member



Blythe Masters
Born 1969
British Citizen
Board member since 2021

Professional history

2021–present Credit Suisse
Chair of Credit Suisse Holdings (USA), Inc. (2022–present)
Chair of the Digital Transformation and Technology Committee (2022–present)
Member of the Governance and Nominations Committee (2022–present)
Member of the Compensation Committee (2021 – 2022)
Member of the Risk Committee (2021)

2019–present Motive Partners
Motive Partners, Founding Partner (2019–present)
Member of the Board of Directors of Forge Global Holdings, Inc. (Listed company) (2022–present)
President of Motive Capital Corporation II (SPAC) (Listed company) (2021–present)
Member of the board of directors of CAIS (2021–present)
Consultant of Apollo Global Management (Listed company) (2021–present)

2015 – 2018 Digital Asset Holdings LLC, Chief Executive Officer

1991 – 2015 J.P. Morgan Chase & Co.
Head of Corporate & Investment Bank Regulatory Affairs (2010 – 2014)
Head of Global Commodities (2007 – 2014)
Chief Financial Officer Investment Bank (2004 – 2007)
Head of Credit Policy and Strategy and Global Credit Portfolio (2002 – 2004)
Co-Head of Asset Backed Securitization and Head of Global Structured Credit (2000 – 2002)
Co-Head of North American Credit Portfolio (1998 – 2000)
Head of Global Credit Derivatives Marketing (1995 – 1998)
Various Roles in Fixed Income Markets (1991 – 1995)

Education

1991 Bachelor of Arts (B.A.) in Economics, Trinity College, Cambridge, UK

Areas of expertise

Client-Facing Business; Finance and/or Audit; Risk, Legal and/or Compliance; and Digitalization and/or Technology



Richard Meddings
Born 1958
British Citizen
Board member since 2020

Professional history

2020–present Credit Suisse
Chair of the Risk Committee (2022–present, member since 2020, chair (ad interim) 2021)
Member of the Audit Committee (2022–present, chair 2020 – 2022)
Member of the Sustainability Advisory Committee (2021 – 2022)
Member of the Governance and Nominations Committee (2020–present)
Member of the Conduct and Financial Crime Control Committee (2020 – 2022)
Vice-Chair of Credit Suisse International and Credit Suisse Securities (Europe) Ltd. (2022–present)

2018 – 2021 TSB Bank plc
Chairman (2019-2021)
Interim executive chairman (2018-2019)

2017 – 2019 Jardine Lloyd Thompson Group plc
Non-executive director
Chair of the Remuneration Committee
Member of the Audit and Risk Committee

2015 – 2019 Deutsche Bank AG
Member of the Supervisory Board
Chair of the Audit Committee, member of the Risk Committee and member of the Strategy Committee

2014 – 2017 Legal & General Group plc
Non-executive director
Chair of the Risk Committee
Member of the Audit and Remuneration Committee

2008 – 2014 3i Group plc
Non-executive director and senior independent director
Chair of the Audit and Risk Committee

2002 – 2014 Standard Chartered Group plc
Group executive director
Finance director (2006-2014)

2000 – 2002 Barclays plc
Group financial controller
COO of Wealth Management Division

1999 – 2000 Woolwich plc, Group Finance Director

Prior to 1999 BZW (CSFB) (1996-1999)

Education

1983 UK Chartered Accountant, Institute of Chartered Accountants in England and Wales

Other activities and functions

GCM Grosvenor, board member and chair of the audit committee (Listed company)

1980

MA Modern History (Honours), Exeter College, Oxford

Areas of expertise

Finance and/or Audit; and Risk, Legal and/or Compliance

Other activities and functions

NHS England, chair



Amanda Norton
 Born 1966
 British and US Citizen
 Board member since 2022

Professional history

2022–present Credit Suisse
 Board Member of Credit Suisse Holdings (USA), Inc. (2022–present)
 Member of the Compensation Committee (2022–present)
 Member of the Risk Committee (2022–present)

2018 – 2022 Wells Fargo, Chief Risk Officer

2011 – 2018 J.P. Morgan Chase
 Chief Risk Officer, Consumer & Community Banking (2013 – 2018)
 Chief Risk Officer, Mortgage Banking (2011 – 2013)

2009 – 2011 Ally Financial, Chief Risk Officer, Mortgage & Head of Market Risk

1995 – 2009 Bank of America
 Head of Enterprise Risk Management, Consumer Banking (2007 – 2009)
 Portfolio Manager, Corporate Investments Group (2000 – 2007)
 Portfolio Analytics Lead, Corporate Treasury (1998 – 2000)
 Market Risk Director (Europe and Asia) (1995 – 1998)

1989 – 1995 Chase Manhattan Bank, Various Positions – Operations and Market Risk

Education

1989 Bachelor of Science (BSc) in Mathematics & Statistics, University of Bath, UK

Areas of expertise

Investment Management; and Risk, Legal and/or Compliance

Other activities and functions

Risk Management Association, director and member of the executive committee The Nature Conservancy, North Carolina Chapter, trustee



Ana Paula Pessoa
 Born 1967
 Brazilian Citizen
 Board member since 2018

Professional history

2018–present Credit Suisse
 Chair of Brazil Advisory Board (2022–present)
 Member of the Conduct and Financial Crime Control Committee (2019–present)
 Member of the Audit Committee (2018–present)
 Chair of Credit Suisse Bank (Europe), S.A. (2022–present, 2021)
 Member of the Innovation and Technology Committee (2018 – 2021)

2020–present Avanti Ltda, Partner

2015 – 2017 Olympic & Paralympic Games 2016, CFO of Organising Committee

2012 – 2015 Brunswick Group, Managing partner of Brazilian branch

2001 – 2011 Infoglobo Newspaper Group, CFO and innovation director

1993 – 2001 Globo Organizations, senior management positions in several media divisions

Education

1991 MA, FRI (Development Economics), Stanford University, California

1988 BA, Economics and International Relations, Stanford University, California

Areas of expertise

Client-Facing Business; Finance and/or Audit; Digitalization and/or Technology; ESG; and Government, Regulatory and/or Academia

Other activities and functions

Cosan, board member and chair of the sustainability committee (Listed company)

Suzano SA, board member and chair of the audit committee (Listed company)

Vinci Group, board member and member of the investment and ESG committee (Listed company)¹

News Corporation, board member, member of the audit committee and member of the governance and nominations committee (Listed company)

Kunumi AI, board member and investor¹

Global Advisory Council for Stanford University, member

Instituto Atlántico de Gobierno, advisory board member

1 Ms. Pessoa will step down from both mandates in April 2023.

Former members of the Board

Information about former members of the Board is available on our website at credit-suisse.com/annualreporting.

Honorary Chairman of Credit Suisse Group AG

Rainer E. Gut, born 1932, Swiss Citizen, was appointed Honorary Chairman of the Group in 2000 after he retired as Chairman, a position he had held from 1986 to 2000. Mr. Gut was a member of the board of Nestlé SA, Vevey, from 1981 to 2005, where he was vice-chairman from 1991 to 2000 and chairman from 2000 to 2005. As Honorary Chairman, Mr. Gut does not have any function in the governance of the Group and does not attend the meetings of the Board.

Secretaries of the Board

Joan E. Belzer, born 1965, Swiss and US citizen

Roman Schärer, born 1981, Swiss citizen

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Executive Board

Membership

The Executive Board is the most senior management body of the Group. Its members are appointed by the Board. Prior to the appointment of an Executive Board member, the terms and conditions of the individual's employment contract with the Group are reviewed by the Compensation Committee. The Executive Board currently consists of 11 members. The composition of the Executive Board of the Group and the Bank is identical, with the exception of André Helfenstein, who is a member of the Executive Board of the Group, but not the Bank.

Executive Board changes

The Group announced a number of changes to the Executive Board for 2022. Effective August 1, 2022, Ulrich Körner was appointed Group CEO by the Board, succeeding Thomas Gottstein, who stepped down from the Executive Board. In addition, the following individuals joined the Executive Board as new members during 2022: Francesco De Ferrari as CEO Wealth

Management, effective January 1, 2022, and regional CEO of EMEA, effective August 21, 2022 (after serving in this role on an ad interim basis since January 2022); Joanne Hannaford as CTOO and David Wildermuth as CRO, both effective January 1, 2022; Christine Graeff as Global Head of People, effective February 1, 2022; Edwin Low as regional CEO of APAC, effective June 1, 2022; Markus Diethelm as GC, effective June 15, 2022; Francesca McDonagh as COO, effective September 19, 2022; Dixit Joshi as CFO, effective October 1, 2022; and Nita Patel as CCO, effective November 1, 2022. The following individuals stepped down from the Executive Board during 2022: Antoinette Poschung, former Global Head of Human Resources, effective February 1, 2022; Helman Sitohang, former regional CEO of APAC, effective June 1, 2022; Romeo Cerutti, former GC, effective June 15, 2022; David Mathers, former CFO, effective October 1, 2022; Christian Meissner, former CEO Investment Bank and regional CEO of Americas, effective October 27, 2022; and Rafael Lopez Lorenzo, former CCO, effective November 1, 2022. In connection with the organizational structure effective as per January 1, 2022, André Helfenstein was appointed regional CEO of Switzerland in addition to his role as CEO Swiss Bank.

Members of the Executive Board

	Executive Board member since	Role
Ulrich Körner, Chief Executive Officer	2021	Group CEO
Francesco De Ferrari, CEO Wealth Management and CEO Region Europe, Middle East and Africa	2022	Divisional Head / Regional Head
Markus Diethelm, General Counsel	2022	Corporate Function Head
Christine Graeff, Global Head of People	2022	Corporate Function Head
Joanne Hannaford, Chief Technology & Operations Officer	2022	Corporate Function Head
André Helfenstein, CEO Swiss Bank and CEO Region Switzerland	2020	Divisional Head / Regional Head
Dixit Joshi, Chief Financial Officer	2022	Corporate Function Head
Edwin Low, CEO Region Asia Pacific	2022	Regional Head
Francesca McDonagh, Chief Operating Officer	2022	Corporate Function Head
Nita Patel, Chief Compliance Officer	2022	Corporate Function Head
David Wildermuth, Chief Risk Officer	2022	Corporate Function Head
Michael Klein, CEO of Banking, CEO Region Americas and CEO designate of CS First Boston ¹	2023	Divisional Head / Regional Head

¹ Subject to regulatory approval.

Responsibilities

The Executive Board is responsible for the day-to-day operational management of the Group under the leadership of the CEO.

As part of its main duties and responsibilities, the Executive Board:

- establishes the strategic business plans for the Group overall as well as for the principal businesses, subject to approval by the Board;

- appoints and dismisses senior managers, with the exception of managers from Internal Audit, and periodically reviews senior management talent across the Group and talent development programs;
- reviews and approves business transactions, including mergers, acquisitions, establishment of joint ventures and establishment of subsidiary companies; and
- approves key policies for the Group.

- regularly reviews and coordinates significant initiatives, projects and business developments in the divisions and the corporate functions, including important risk management matters;
- regularly reviews the consolidated and divisional financial performance, including progress on key performance indicators, as well as the Group's capital and liquidity positions and those of its major subsidiaries;

Executive Board committees

The Executive Board has a number of standing committees, which meet regularly throughout the year and/or as required. These committees are:

- Executive Board Risk Management Committee (ExB RMC): co-chaired by the Group's CEO, CRO and CCO: Replaces the Internal Control System and Position & Client Risk cycles of

the former Capital Allocation and Risk Management Committee (CARMC) and the former Executive Board Risk Forum. The ExB RMC is primarily responsible for steering and monitoring the development and execution of the Group’s risk strategy, approving risk appetite across all risk types for the Group and its divisions, as well as reviewing the aggregate and highest risk exposures, major risk concentrations and key non- financial risks. The ExB RMC approves risk limit applications that require final approval by the Risk Committee or the Board. The ExB RMC is also responsible for assessing the appropriateness and efficiency of the internal control system and serves as an escalation point for risk issues raised by subordinated risk committees or Executive Board members.

- Group Capital Allocation and Liability Management Committee (Group CALMC) replaces the Asset & Liability Management cycle of the former CARMC. Group CALMC reviews the funding and balance sheet trends and activities, plans and monitors regulatory and business liquidity requirements and internal and regulatory capital adequacy. Group CALMC also reviews and proposes the contingency funding plan for approval by the Board, reviews the position taking of interest rate risk in the banking book and decides on changes in approaches relating to investment of own equity. Further, it sets internal targets, approves and reviews adherence to internal targets for capital allocation, funding, liquidity and capital management actions, including the review and monitoring of share repurchases.
- The Credit Suisse AG Parent Capital Allocation, Liability and Risk Management Committee (Credit Suisse AG Parent CAL-RMC) reviews the capital, liquidity and funding trends and activities of Credit Suisse AG (Bank parent company). The CS AG Parent CALRMC reviews and challenges the financial and capital plans of major subsidiaries of the Bank parent company, including key risks and key dependencies, such as dividends or other capital repatriations from the major subsidiaries to the Bank parent company, ahead of approvals by the respective subsidiary governance bodies. The committee also monitors and reviews the Bank parent company’s aggregate risk profile, in particular the Bank parent company-specific vulnerabilities, and approves risk appetite for the Bank parent company and its branches.
- Valuation Risk Management Committee (VARMC): the VARMC is responsible for establishing policies regarding the valuation of certain material assets and the policies and calculation methodologies applied in the valuation process. Further, the VARMC is responsible for monitoring and assessing valuation risks, reviewing inventory valuation conclusions and directing the resolution of significant valuation issues.
- Group Conduct Board (GCB): the GCB (co-chaired by the Global Head of People together with one of the other Executive Board members appointed to the GCB on an annually rotating basis) is responsible for overseeing conduct matters and ensuring consistency and alignment of practices across the Group. The GCB oversees the global disciplinary process and measures and serves as a review panel to consider potential significant events and individual compensation. The GCB also reviews findings from conduct related investigations

and considers these in the context of determining disciplinary outcomes.

- Group Values and Culture Board (GVCB): the Executive Board is in the process of setting up the GVCB, which will have responsibility for establishing and determining the governance framework for the management of culture and values related matters throughout the Group. The GVCB will be co-chaired by the CEO, the Global Head of People and the CRO. It is planned that the GVCB will begin activities in the second quarter of 2023.

The Group appoints a conduct and ethics ombudsperson who is accountable directly to the CEO and the GCB. The ombudsperson’s role is to serve as a point of immediate escalation when sexual harassment claims arise and to ensure there is appropriate awareness of and attention to such claims. The ombudsperson works with our Compliance, General Counsel and People functions as well as our business divisions to review our relevant global training programs, policies and protocols, so that they can be further enhanced as part of our efforts to prevent sexual harassment at work and to make sure all cases are managed in a fair, accurate and consistent way within our global framework.

- Refer to “Risk management” in III – Treasury, Risk, Balance sheet and Off-balance sheet for further information on our risk management oversight.

Executive Board mandates

Our Executive Board members may, similar to our Board members, assume board or executive level or other roles in companies and organizations outside of the Group, which are collectively referred to as mandates. According to the Group’s AoA (Chapter IV, Section 3, The Executive Board, Art. 20f), the number of mandates Executive Board members may hold in listed companies and other organizations outside of the Group is subject to certain restrictions, in order to comply with the Swiss Code of Obligations and to ensure that our Executive Board members dedicate sufficient time to fulfil their executive roles.

The limitations on mandates assumed by Executive Board members outside of the Group are summarized in the table below.

Type of mandate and limitation – Executive Board

Type of mandate	Limitation
Listed companies	No more than one other mandate
Other legal entities ¹	No more than two mandates
Legal entities on behalf of the Group ²	No more than ten mandates
Charitable legal entities ³	No more than ten mandates

¹ Includes private non-listed companies.

² Includes memberships in business and industry associations.

³ Also includes honorary mandates in cultural or educational organizations.

No Executive Board member holds mandates in excess of these restrictions. The restrictions shown above do not apply to mandates of Executive Board members in legal entities controlled by the Group, such as subsidiary boards.

- Refer to “Mandates” in Board of Directors for further information.

Biographies of the Executive Board members



Ulrich Körner
 Born 1962
 German and Swiss Citizen
 Member since 2021

Chief Executive Officer

Professional history

2021–present Credit Suisse
 Chief Executive Officer of the Group (2022–present)
 Member of the Board of Credit Suisse (Schweiz) AG (Swiss subsidiary) (2022–present)
 CEO Asset Management (2021 – 2022)

2009 – 2020 UBS
 Member of the Group Executive Board (2009 – 2019)
 Senior Advisor to the CEO of UBS Group (2019 – 2020)
 CEO of UBS Asset Management (2014 – 2019)
 CEO of UBS Europe, Middle East & Africa (2011 – 2019)
 Group Chief Operating Officer, CEO Corporate Center (2009 – 2013)

1998 – 2009 Credit Suisse
 Member of the Group Executive Board (1998 – 2009)
 CEO Switzerland (2006 – 2008)
 Credit Suisse/Credit Suisse Financial Services, CFO (2002 – 2005), COO (2004 – 2005)
 CEO Technology and Services (2000 – 2001)
 CFO Switzerland (1998 – 2000)

Prior to 1998 McKinsey & Company, Senior Engagement Manager Revisuisse, Price Waterhouse, Auditor

Education

1993 PhD in Economics, University of St. Gallen

1988 Master's degree in Economics, University of St. Gallen

Other activities and functions

Lyceum Alpinum Zuoz AG, vice chairman of the board of directors (Listed company)



Francesco De Ferrari
 Born 1969
 Swiss and Italian Citizen
 Member since 2022

CEO Wealth Management and CEO Region EMEA

Professional history

2022–present Credit Suisse
 CEO Wealth Management (2022–present)
 CEO Region EMEA (2022–present)
 Chair of Credit Suisse (Qatar) L.L.C. (2022–present)

2018 – 2021 AMP
 CEO & Managing Director, AMP Capital (2020 – 2021)
 CEO & Managing Director, AMP Holdings Limited (2018 – 2021)

2002 – 2018 Credit Suisse
 CEO, South East Asia and Frontier Markets (2015 – 2018)
 CEO, Private Banking Asia Pacific (2012 – 2018)
 CEO, Private Banking Italy (2008 – 2011)
 Business COO, Private Banking EMEA (2007 – 2008)
 Various Management and other Positions with Credit Suisse Italy (2002 – 2006)

1999 – 2001 B2Vision & ASPESI Spa, Founder

1996 – 1999 McKinsey & Company, Engagement Manager

1993 – 1995 Nestlé, Internal Audit, International Management Training Program

1990 – 1992 Deloitte & Touche, Financial auditor

Education

1996 MBA, INSEAD, Fontainebleau, France

1990 Bachelor of Arts in Economics and International Business, New York University, US

Other activities and functions

Mr. De Ferrari currently does not hold directorships in other organizations.



Markus Diethelm
 Born 1957
 Swiss Citizen
 Member since 2022
General Counsel

Professional history

2022–present Credit Suisse
 General Counsel (2022–present)

2008 – 2022 UBS
 Of Counsel (2021 – 2022)
 Group General Counsel and Member of the Group Executive Board of UBS Group AG (2014 – 2021)
 Group General Counsel and Member of the Group Executive Board of UBS AG (2008 – 2021)
 Member of the Executive Board of UBS Business Solutions AG (2015 – 2016)

1998 – 2008 Swiss Re
 Member of the Group Executive Board (2007 – 2008)
 Group Chief Legal Officer (1998 – 2008)

1992 – 1998 Gibson, Dunn & Crutcher, Brussels and Paris, Attorney-at-law

1989 – 1992 Shearman & Sterling, New York, Attorney-at-law

1988 – 1989 Paul, Weiss, Rifkind, Wharton & Garrison, New York, Attorney-at-law

1984 – 1985 District Court of Uster, Law clerk

1983 – 1984 Bär & Karrer, Zurich, Associate

Education

1997 Admission to the bar of the Canton of Geneva

1992 Doctorate in Law (JSD), Stanford Law School, US

1991 Admission to the bar of the State of New York, US

1988 Master of the Science of Law (JSM), Stanford Law School, US

1986 Admission to the bar of the Canton of Zurich

1983 Master in Law (lic. iur.), University of Zurich

Other activities and functions

Swiss-American Chamber of Commerce, chairman of the legal committee

American Swiss Foundation, co-chairman and chairman of the swiss advisory council

New York State Council of Business Leaders in Support of Access to Justice, member

Swiss Finance Institute, vice-chair of the foundation board

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Christine Graeff
 Born 1973
 French and German Citizen
 Member since 2022
Global Head of People

Professional history

2021–present Credit Suisse
 Global Head of People (2022–present)
 Group Head of Corporate Communications and Deputy Head of Human Resources (2021 – 2022)

2013 – 2020 European Central Bank, Director General of Communications

2001 – 2013 Brunswick Group GmbH, Partner & Managing Director

1999 – 2001 Burson-Marsteller, Financial Services and Investor Relations Practice

1996 – 1999 Dresdner Kleinwort Benson, Corporate Finance Analyst, M&A

Education

2019 Business Coach Qualification, Meyler Campbell, UK

1998 Securities Institute Diploma and SFA, Chartered Institute for Securities & Investment (CISI), UK

1995 Bachelor of Arts in European Business Administration, European Partnership of Business Schools (EPBS), London and Reims

Other activities and functions

Atlantik-Brücke, advisory board member

Patronatsverein für die Städtischen Bühnen Frankfurt, member

The English Theater Frankfurt, chair



Joanne Hannaford
 Born 1970
 British Citizen
 Member since 2022
Chief Technology & Operations Officer

Professional history

2022–present Credit Suisse
 Chief Technology & Operations Officer (2022–present)

1997 – 2021 Goldman Sachs
 Partner and Global Co-Head of Platform Engineering, EMEA Head of Engineering and Global Head of Regulatory Engineering (2013 – 2021)
 Global Head of Corporate and Operations Technology (2016 – 2017)
 Partner & Co-Head of Enterprise Platforms (2013 – 2016)
 Managing Director & Global Head of Compliance and Legal Technology (2001 – 2013)
 Vice President, Statistical Engineer and Investment Research (1997 – 2001)

1994 – 1997 NatWest Bank, Executive Director, Global Volume Trading Systems

Prior to 1994 UBS (1993 – 1994)
 Merrill Lynch (1992 – 1993)

Education

1992 Bachelor of Science in Computer Science, Staffordshire University, UK
 1990 BTEC Higher National Diploma (HND) in Computer Science, Anglia Ruskin University, UK

Other activities and functions

Royal Society Science, Industry and Translation Committee, member
 British Army Staff Corp, major
 Founders4Schools Charity, member of the board of trustees
 British Computer Society, fellow



André Helfenstein
 Born 1967
 Swiss and British Citizen
 Member since 2020
CEO Swiss Bank and CEO Region Switzerland

Professional history

2007–present Credit Suisse
 CEO Swiss Bank (2022–present)
 CEO Region Switzerland (2022–present)
 CEO Credit Suisse (Schweiz) AG (2020–present)
 CEO Swiss Universal Bank (2020 – 2021)
 Head Institutional Clients, Swiss Universal Bank (2017 – 2020)
 Credit Suisse (Schweiz) AG, member of the executive board (2016–present)
 Swiss Universal Bank, member of the management committee (2015 – 2021)
 Head Corporate & Institutional Clients, Swiss Universal Bank (2015 – 2017)
 Private & Wealth Management organization in Switzerland: Head Private Banking Clients, Region Zurich and Region Head Zurich (2013 – 2015)
 Private & Wealth Management organization in Switzerland: Head Private Clients, Region Zurich (2010 – 2013)
 Head Products, Sales & Pricing, Private Banking (2007 – 2010)

1996 – 2007 The Boston Consulting Group (BCG) (1996 – 1997 and 2003 – 2007 in Zurich, 1998 – 2003 in New York)
 Partner & Managing Director (2005 – 2007)
 Consultant (1996 – 2005)

1993 – 1995 STB Unternehmensentwicklungen AG (VZ VermögensZentrum AG), Associate

Education

1992 Master’s Degree in Business, University of St. Gallen
 1990 Certificate in Psychology/Sociology, Université de la Sorbonne

Other activities and functions

Pension Fund CS Group (Schweiz), foundation board member
 Pension Fund 2 CS Group (Schweiz), foundation board member
 Credit Suisse Foundation, foundation board member
 FINMA Private Banking Panel, member
 SIX Group AG, board and risk committee member
 SIX Exchange Group AG, board member
 Economiesuisse, board and board committee member
 Zürcher Handelskammer, board member
 Swiss Entrepreneurs Foundation, foundation board member
 Europa Forum Luzern, steering committee member
 University of St. Gallen – Center for Financial Services Innovation,

advisory board member
Venture Incubator AG, board vice chairman
Zürcher Volkswirtschaftliche Gesellschaft, board member
Swiss-American Chamber of Commerce, member



Dixit Joshi
 Born 1971
 British Citizen
 Member since 2022
Chief Financial Officer

Professional history

2022–present Credit Suisse
 Chief Financial Officer (2022–present)

2010 – 2022 Deutsche Bank AG
 Group Treasurer (2017 – 2022)
 Head of ICG Debt, Listed Derivatives and Markets
 Clearing (2016 – 2017)
 Head of Global Prime Finance (2015 – 2016)
 Head of APAC Equities (2010 – 2015)

2003 – 2010 Barclays Capital
 Head of EMEA Equities (2008-2010)
 Head of Equity Derivatives (2003-2008)

1995 – 2003 Credit Suisse First Boston, various roles in the
 Equity Trading business, New York and London

1992 – 1995 Standard Bank of South Africa, various roles

Education

1992 Bachelor of Science (BSc) in Actuarial Science and
 Statistics, University of the Witwatersrand, South
 Africa

Other activities and functions

Pratham UK, board member
 Student Sponsorship Programme (SSP) – South Africa, trustee



Michael Klein
 Born 1963
 US Citizen
 Member since 2023¹
**CEO Banking, CEO Region
 Americas and CEO designate of
 CS First Boston¹**

Professional history

2018–present Credit Suisse
 CEO Banking (2023–present)¹
 CEO Region Americas (2023–present)¹
 CEO designate of CS First Boston (2023–present)¹
 Member of the Board of Directors of Credit Suisse
 Group AG and Credit Suisse AG (2018 – 2022)
 Member of the Sustainability Advisory Committee
 (2022)
 Member of the Compensation Committee (2019 –
 2022)
 Member of the Risk Committee (2018 – 2021)

2010–present M Klein & Company, Managing Partner

1985 – 2008 Citigroup
 Vice chairman
 Chairman Institutional Clients Group
 Chairman & Co-CEO Markets & Banking
 Co-President Markets & Banking
 CEO Global Banking
 CEO Markets and Banking EMEA
 Various senior management positions

Education

1985 Bachelors of Science in Economics (Finance and
 Accounting), The Wharton School, University of
 Pennsylvania

Other activities and functions²

MultiPlan, board member (Listed company)
 Churchill Capital Corp. V, VI, VII, board member (SPACs, Listed
 company)
 AltC Acquisition Corp., board member (Listed company)
 Skillsoft Ltd., board member (Listed company)
 TBG Europe NV, board member
 Magic Leap, board member
 Chatham House, senior advisor
 Harvard Global Advisory Board, member
 Investments Committee & Joint Staff Pension Fund, United Nations,
 advisory board member
 Peterson Institute for International Economics, board member
 The World Food Programme, investment advisory board member
 Conservation International, board member

¹ Mr. Klein’s appointment to the Executive Board is subject to
 regulatory approval.
² Once Mr. Klein joins the Executive Board, he will transition off
 certain activities and functions.



Edwin Low
 Born 1968
 Singaporean Citizen
 Member since 2022
CEO Region Asia Pacific

Professional history

1996–present Credit Suisse
 CEO Region Asia Pacific (2022–present)
 Co-Head of Investment Bank APAC (2022)
 CEO Southeast Asia and Frontier Markets (2019 – 2022)
 Co-Head of Investment Banking & Capital Markets APAC (2015 – 2022)
 Co-Head of IBCM Southeast Asia (2012 – 2015)
 Deputy CEO Singapore (2011 – 2016)
 Head of Singapore and Malaysia Coverage, IBCM (2006 – 2015)
 Head of Singapore Coverage, IBCM (2004 – 2006)
 Head of Corporate Finance Southeast Asia, IBCM (1998 – 2004)
 Associate Corporate Finance (1996 – 1998)

1994 – 1995 Schroders plc, Associate

1990 – 1992 Mallesons Stephen Jaques, Associate

Education

1994 MBA, Australian Graduate School of Management, University of New South Wales, Australia

1990 Bachelor of Law (Honours), University of Western Australia

1989 Bachelor of Jurisprudence, University of Western Australia

Other activities and functions

Mr. Low currently does not hold directorships in other organizations.



Francesca McDonagh
 Born 1975
 Irish Citizen
 Member since 2022
Chief Operating Officer

Professional history

2022–present Credit Suisse
 Chief Operating Officer (2022–present)
 Board Member of Credit Suisse International and Credit Suisse Securities (Europe) Ltd. (2023–present)

2017 – 2022 Bank of Ireland, Group CEO

1997 – 2017 HSBC
 Group General Manager, Retail Banking and Wealth Management, HSBC UK and Europe (2014 – 2017)
 Regional Head, Retail Banking and Wealth Management, HSBC Middle East and North Africa (2011 – 2013)
 Head of Personal Financial Services, HSBC Hong Kong (2009 – 2011)
 Head of Personal Financial Services, HSBC Panama (2007 – 2009)
 Head of Premier Banking, HSBC Mexico (2004 – 2007)
 Head of Personal Banking, HSBC Indonesia (2001 – 2004)
 Manager, HSBC Group Strategy Implementation, UK (2001)
 Other Positions (1997 – 2000)

Education

1996 BA in Politics, Philosophy and Economics (Honours), Oxford University, UK

Other activities and functions

Ms. McDonagh currently does not hold directorships in other organizations.



Nita Patel
 Born 1974
 British Citizen
 Member since 2022
Chief Compliance Officer

Professional history

- 2021–present Credit Suisse
 Chief Compliance Officer (2022–present)
 Chief Compliance Officer, Asset Management, CSi,
 CSSEL and CS London Branch (2021 – 2022)
 Chief Compliance Officer, UK & EMEA
 Investment Bank (2021)
- 2004 – 2021 Goldman Sachs
 Chief Compliance Officer, EMEA and APAC Asset
 Management (2012 – 2021)
 Compliance Officer, Fixed Income and Equities
 Trading Desks (2004 – 2012)
- 2000 – 2004 Nomura, Compliance Officer, Fixed Income
- 1998 – 2000 Bear Stearns, Regulatory Capital

Education

- 1997 MSC in Finance and Investment, Brunel University,
 UK
- 1996 BA in Business Studies (Honours) – Elective
 Finance, Southbank University, UK

Other activities and functions

Ms. Patel currently does not hold directorships in other organizations.



David Wildermuth
 Born 1964
 US Citizen
 Member since 2022
Chief Risk Officer

Professional history

- 2022–present Credit Suisse
 Chief Risk Officer (2022–present)
 Member of the Sustainability Advisory Committee
 (2022–present)
 Board Member of Credit Suisse Holdings (USA),
 Inc. (2022–present)
- 1997 – 2022 Goldman Sachs
 Deputy Chief Risk Officer (2015 – 2022)
 Partner (2010 – 2022)
 Global Chief Credit Officer & Global Head Credit
 Risk Management and Advisory (2012 – 2018)
 Chief Risk Officer EMEA & Global Chief Credit
 Officer (2008 – 2012)
 Managing Director, Risk Management (2001 –
 2008)
 Vice President Credit Risk (1997 – 2001)
- 1987 – 1997 ABN AMRO Bank
 Various Roles in Corporate Finance, Leveraged
 Finance, Real Estate Finance and Credit
 Management

Education

- 1986 Bachelor of Arts in Economics and Computer
 Science, Dartmouth College, US

Other activities and functions

East Harlem Scholars Academy, member of the board of trustees

Former members of the Executive Board

Information about former members of the Executive Board is available on our website at credit-suisse.com/annualreporting.

Audit

External Audit

External Audit forms an integral part of the Group's corporate governance framework and plays a key role by providing an independent assessment of our operations and internal controls.

- Refer to "Audit Committee" in Board of Directors – Board committees for further information on the responsibilities of the audit committee.

Principal external auditor

The Group retains a single global audit firm as its principal external auditor to perform both the statutory (financial) audit and the regulatory audit work mandated by FINMA. The AGM elects the statutory auditor annually, while the Board is responsible for the appointment of the regulatory auditor.

Our principal external auditor is PwC, Birchstrasse 160, 8050 Zurich, Switzerland. The mandate was first given to PwC for the fiscal year ending December 31, 2020. The Group is not subject to mandatory external audit firm rotation requirements; however, the lead audit partners are subject to periodic rotation requirements. Audit partner rotation is key to ensuring the highest level of audit quality. In general, audit partners with key roles or signing obligations for the Group or material Group entities are subject to a maximum of five years of service. Audit partners with roles overseeing non-material Group entities or serving a supplemental role are subject to a maximum of seven years of service. Specialist partners, including, but not limited to, IT, valuation, tax and forensic areas are not subject to mandated rotation. The lead Group engagement partners are Matthew Falconer, Global Lead Partner, Matthew Goldman, Group Engagement Partner and Andrin Bernet, Lead Regulatory Audit Partner.

- Refer to "Audit Committee" in Board of Directors – Board committees for further information.

Governance

The Audit Committee monitors and pre-approves the fees to be paid to the principal external auditor for its services. It has developed and approved a policy on the engagement of public accounting firms that is designed to help ensure that the independence of the external auditor is maintained at all times.

The policy limits the scope of services that the principal external auditor may provide to us or any of our subsidiaries in connection with its audit and stipulates certain permissible types of non-audit services, including audit-related services and tax services that have been pre-approved by the Audit Committee. The principal external auditor is required to report periodically to the Audit Committee about the scope of the services it has provided and the fees for the services it has performed to date. The principal external auditor also provides a report as to its independence to

the Audit Committee at least once a year. In accordance with our pre-approval policy and as in prior years, all non-audit services provided in 2022 were pre-approved.

The fees paid to PwC as the Group's principal external auditors for the financial year 2022 and 2021 are provided in the following table.

Fees paid to the principal external auditor

for financial year	2022	2021	% change
Fees (CHF million)			
Audit services ¹	76.4	69.2	10
Audit-related services ²	1.5	2.7	(44)
Tax services ³	0.2	0.3	(33)

- 1 Audit services include the integrated audit of the Group's consolidated and statutory financial statements, interim reviews and comfort and consent letters. Additionally, they include all assurance and attestation services related to the regulatory filings of the Group and its subsidiaries. Audit fees exclude value-added taxes.
- 2 Audit-related services are primarily in respect of: (i) reports related to the Group's compliance with provisions of agreements or calculations required by agreements; (ii) accounting advice; (iii) audits of private equity funds and employee benefit plans; and (iv) regulatory advisory services.
- 3 Tax services are in respect of tax compliance and consultation services, including: (i) preparation and/or review of tax returns of the Group and its subsidiaries; (ii) assistance with tax audits and appeals; and (iii) confirmations relating to the Qualified Intermediary status of Group entities.

The principal external auditor attends all meetings of the Audit Committee and reports on the findings of its audit and/or interim review work. The Audit Committee reviews the principal external auditor's audit plan on an annual basis and evaluates the performance of the principal external auditor and its senior representatives in fulfilling their responsibilities. Moreover, the Audit Committee recommends to the Board the appointment or replacement of the principal external auditor, subject to shareholder approval as required by Swiss law.

Special auditor for capital increases

The 2022 AGM re-elected, pursuant to Art. 21 of our AoA, the firm BDO AG, Fabrikstrasse 50, 8031 Zurich, Switzerland, as special auditor for the purposes of issuing the legally required report for capital increases in accordance with Article 652f of the Swiss Code of Obligations, mainly relating to the valuation of companies in consideration of the qualified capital increases involving contributions in kind. BDO AG provided services in 2022 in connection with the Group's capital increases. As part of the amendments to the AoA proposed at the 2023 AGM, the Board proposes to delete Art. 21 of the AoA, thus removing the requirement for an election of the special auditors by the shareholders. While the preparation of an independent report in connection with capital increases is still required, the Board would have the authority to mandate an appropriate third-party to prepare such reports rather than proposing the election of a special auditor at the AGM.

Additional information

Banking relationships with Board and Executive Board members and related party transactions

The Group is a global financial services provider. Many of the members of the Board and the Executive Board, their close family members or companies associated with them maintain banking relationships with us. The Group or any of its banking subsidiaries may from time to time enter into financing and other banking agreements with companies in which current members of the Board or the Executive Board have a significant influence as defined by the SEC, such as holding executive and/or board level roles in these companies. With the exception of the transactions described below, relationships with members of the Board or the Executive Board and such companies were in the ordinary course of business and entered into on an arm's length basis at prevailing market conditions. Also, unless otherwise noted, all loans to members of the Board, members of the Executive Board, their close family members or companies associated with them were made in the ordinary course of business, were made on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other persons and did not involve more than the normal risk of collectability or present other unfavorable features. As of December 31, 2022, 2021 and 2020, there were no loan exposures to such related parties that were not made in the ordinary course of business and at prevailing market conditions.

- Refer to “Board loans” and “Executive Board loans (audited)” in V – Compensation – Supplementary information for the outstanding loans to members of the Board and the Executive Board.

Related party transactions

On February 9, 2023, the Group announced that it had taken further important steps to progress the carve-out of CS First Boston as a leading capital markets and advisory business through the acquisition of The Klein Group LLC, the investment

banking business as well as the registered broker-dealer of M. Klein & Company LLC (the seller). The Group also announced the appointment of former Board member Michael Klein as CEO of Banking and regional CEO of Americas, as well as designated CEO of CS First Boston and a member of the Executive Board. Both Michael Klein's appointment to the Executive Board and the acquisition of The Klein Group LLC are subject to regulatory approval. In addition, on October 27, 2022, the Group and The Klein Group LLC entered into an engagement letter, under which The Klein Group LLC has been engaged to provide strategic advice and assistance to the Group in connection with the proposed carve-out of CS First Boston, whereby it was agreed that Michael Klein would devote significant time and attention to the services to be provided by The Klein Group LLC to the Group.

- Refer to “Note 31 – Related parties” in VI – Consolidated financial statements – Credit Suisse Group for additional information.

Other information

Complying with rules and regulations

We fully adhere to Swiss corporate law and the principles set out in the Swiss Code of Best Practice for Corporate Governance, dated August 28, 2014, including its appendix stipulating recommendations on the process for setting compensation for the Board and the Executive Board.

In connection with our primary listing on the SIX Swiss Exchange, we are subject to the Directive on Information relating to Corporate Governance, dated June 18, 2021 (in effect since October 1, 2021). Our shares are also listed on the NYSE in the form of ADS and certain of the Bank's exchange traded notes are listed on Nasdaq. As a result, we are subject to certain US rules and regulations. We adhere to the NYSE's and Nasdaq's corporate governance listing standards (NYSE and Nasdaq standards), with a few exceptions where the rules are not applicable to foreign private issuers.

Regulations

The following are the significant differences between Credit Suisse corporate governance standards and the corporate governance standards applicable to US domestic issuers listed on the NYSE and Nasdaq:

<u>Topic</u>	<u>NYSE and Nasdaq standards</u>	<u>Swiss standards</u>
Approval of employee benefit plans	The NYSE and Nasdaq require shareholder approval of the establishment for, and material revisions to, certain equity compensation plans.	Swiss law requires shareholder approval of the creation for conditional capital used for the issuance of shares for employee benefit plans and other equity compensation plans, as well as approval of the remuneration of executives, but does not require shareholder approval of the terms of such plans.
Risk assessment and management	The NYSE allocates the responsibility for the discussion of guidelines and policies governing the process by which risk assessment and risk management is undertaken to the Audit Committee.	At the level of the Group, these duties are assumed by the Risk Committee, in line with Swiss regulatory standards and expectations. Whereas our Audit Committee members satisfy the NYSE as well as Nasdaq independence requirements, our Risk Committee may include a minority of non-independent members.
Independence of nominating and corporate Governance Committee	The NYSE and Nasdaq require that all members of the nominating and corporate governance committee be independent.	The Group's Governance and Nominations Committee is currently composed entirely of independent members, but according to its charter, may also include non-independent members.
Reporting by the Board	The NYSE requires that certain board committees report specified information directly to shareholders.	Under Swiss law, only the Board reports directly to the shareholders, and the committees submit their reports to the full Board.
Appointment of the external auditor	The NYSE and Nasdaq require that an Audit Committee of a listed company comply with and have the authority necessary to comply with the requirements of Rule 10A-3 of the Securities Exchange Act of 1934. Rule 10A-3 requires the Audit Committee to be directly responsible for the appointment, compensation, retention and oversight of the external auditor unless there is a conflicting requirement under home country law.	Under Swiss law, the appointment of the external auditor for accounting purposes must be approved by the shareholders at the AGM based on the proposal of the Board, upon the recommendation of the Audit Committee.
Audit Committee charter	The Nasdaq requires the Audit Committee to review and assess the adequacy of its charter on an annual basis.	Our Audit Committee's charter only requires review and assessment from time to time in accordance with applicable Swiss laws and regulatory standards.
Executive sessions	The NYSE and Nasdaq require the board of directors to meet regularly in executive sessions composed solely of independent directors. Our Board meets regularly in executive sessions comprising all directors, including any directors determined not to be independent. However, if any item discussed at the meeting raises a conflict of interest for any of our directors, such director may not participate in the related decision making.	In line with Swiss law, the Board must not include any directors who are also members of management.
Quorums	The Nasdaq requires that the company's by-laws provide for a quorum of at least 33 ¹ / ₃ % of the outstanding shares of the company's common stock for any meeting of the holders of common stock.	Consistent with Swiss corporate law, the Group's AoA (Chapter IV, Section 1, The General Meeting of Shareholders, Art. 12), call for a quorum in certain instances, but do not require a quorum of 33 ¹ / ₃ % or greater of the holders of the outstanding shares of common stock for any meeting of shareholders.
Independence	The NYSE and Nasdaq specify thresholds for the maximum permissible amount of (i) direct compensation that can be paid by the company to a director or an immediate family member thereof, outside of such director's directorship fees and other permitted payments; and (ii) payments between the company and another company at which such director or an immediate family member thereof is an executive officer, controlling shareholder, partner or employee.	Our independence standards do not specify thresholds for direct compensation or cross-company payments or revenues, but consider these facts in the overall materiality of the business relationship determination for independence purposes.

Fiduciary duties and indemnification

The Swiss Code of Obligations requires directors and members of senior management to safeguard the interests of the corporation and, in connection with this requirement, imposes the duties of care and loyalty on directors and members of senior management. While Swiss law does not have a specific provision on conflicts of interest, the duties of care and loyalty are generally understood to disqualify directors and members of senior management from participating in decisions that could directly affect them. Directors and members of senior management are personally liable to the corporation for any breach of these provisions.

The Group's AoA and the Bank's AoA do not contain provisions regarding the indemnification of directors and officers. According to Swiss statutory law, an employee has a right to be indemnified by the employer against losses and expenses incurred by such person in the execution of such person's duties under an employment agreement, unless the losses and expenses arise from the employee's gross negligence or willful misconduct. It is our policy to indemnify current and former directors and/or employees against certain losses and expenses in respect of service as a director or employee of the Group, one of the Group's affiliates or another entity that we have approved, subject to specific conditions or exclusions. We maintain directors' and officers' insurance for our directors and officers.

Fees and charges for holders of ADS

In November 2016, the Group entered into a deposit agreement with The Bank of New York Mellon as depositary for the ADS (Depositary). In February 2022, the deposit agreement with The Bank of New York Mellon was extended for an additional five years, retroactively effective November 22, 2021. In accordance with the deposit agreement, the Depositary may charge holders of our ADS, either directly or indirectly, fees or charges up to the amounts described below.

The Depositary collects its fees and related expenses for the delivery and surrender of ADS directly from investors depositing or surrendering ADS for the purpose of withdrawal or from intermediaries acting for them. The Depositary collects fees and expenses for making distributions to holders by deducting those fees and expenses from the amounts distributed or by selling a portion of distributable property to pay the fees and expenses. The Depositary may generally refuse to provide any services until its fees for those services are paid.

Fees and charges for holders of ADS

Fees

USD 5 (or less) per 100 ADS (or portion thereof)	For the issuance of ADS, including issuances resulting from a distribution of shares, share dividends, share splits and other property; for ADS issued upon the exercise of rights; and for the surrender of ADS for cancellation and withdrawal of shares.
USD 0.05 (or less) per ADS Registration or transfer fees	For any distribution of cash to ADS registered holders, including upon the sale of rights or other entitlements. For the transfer and registration of shares on our share register to or from the name of the Depositary or its agent when the holder deposits or withdraws shares.

Charges

Expenses of the Depositary	For cable and facsimile transmissions (when expressly provided in the deposit agreement); and for converting foreign currency to US dollars.
Taxes and other governmental charges	Paid, as necessary, to the Depositary or the custodian who pays certain charges on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or applicable interest or penalty thereon.
Other charges	Paid, as necessary, to the Depositary or its agents for servicing the deposited shares.

Amounts paid by the Depositary to the Group

In 2022, in accordance with the deposit agreement, the Depositary made payments to the Group in an aggregated amount of USD 2.6 million. The payments made to the Group comprised annual and revenue sharing payments. The expenses relating to the ADS program are reimbursed separately by the Depositary. The Depositary has also contractually agreed to provide certain ADS program-related services free of charge.

Under certain circumstances, including removal of the Depositary or termination of the ADS program by the Group, the Group is required to repay certain amounts paid to the Group and to compensate the Depositary for payments made or services provided on behalf of the Group.

V – Compensation

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Christian Gellerstad
Chair of the
Compensation Committee

Dear shareholders,

In 2022 we faced an extremely challenging macro and geopolitical environment, with market uncertainty and client risk aversion impacting client volumes and banking activity. Our Group's performance in this challenging context has been unacceptable, triggering major decisions, starting with a comprehensive transformation strategy announced in October 2022 and the recruitment of a largely new Executive Board team. We are confident that we have laid the foundation for a much more resilient and successful organization, although this transformation journey will undoubtedly require an extraordinary and sustained commitment from our leadership teams and employees across the firm.

Since taking on the role of Chair of the Compensation Committee in April 2022, I have worked with my fellow Board members to address the challenge of combining overarching "pay for performance" requirements with the necessity to maintain an attractive and operational franchise during our transformation. In this balancing act, the Compensation Committee has frequently consulted with shareholders and regulators and has extensively incorporated the feedback received in its deliberation process. This has been extremely valuable in developing our approach to compensation going forward, and I would like to thank all those who took part for their time and commitment.

We remain mindful that our compensation framework and principles must fully align with the experience and successes of our clients and shareholders, and this letter sets out the difficult decisions taken with respect to compensation outcomes for 2022 and introduces our proposed approach for 2023 with the supporting rationale.

We have also made several improvements to this year's compensation report to enhance its clarity and presentation. In particular, we have introduced a new section called "Compensation at a glance", which follows this letter and provides a summary of the 2022 compensation outcomes and proposals for 2023 onwards.

Group performance and the variable compensation pool

As explained, the Group's financial results in 2022 included impacts from market-related elements, but also our strategic overhaul resulting in restructuring expenses and impairment of deferred tax assets, as well as the resolution of a number of legacy litigation cases, resulting in an unsatisfactory Group net loss attributable to shareholders of CHF 7.3 billion. In terms of adjusted results, the Group delivered an adjusted full year loss before taxes of CHF 1.2 billion. As a consequence, the Compensation Committee resolved that the Group variable incentive pool should be reduced significantly. The final outcome of CHF 1.0 billion is down 50% from 2021 levels, and down 66% from 2020 levels. This pool level was set at the minimum level considered appropriate to enable the honoring of contractual commitments and payment of formulaic bonuses in the relevant areas, and to keep potential franchise damage through key employee attrition at a manageable level.

- Adjusted results are non-GAAP financial measures. Refer to "Reconciliation of adjustment items" in II – Operating and financial review – Credit Suisse for further information.

In addition, to mitigate the cost and capital impact of variable incentives in 2022, and to strengthen alignment with the longer-term shareholder experience, the Compensation Committee determined that employees with Managing Director and Director titles were granted variable incentive compensation predominantly in the form of deferred share awards. In general, except as contractually required, the cash component was limited to a maximum of CHF 150,000 and, where permitted by local law, delivered as upfront cash awards, which are cash awards that must be repaid (on pro-rata basis) upon a voluntary termination of employment or in the event of other specified repayment conditions.

Moreover, the impact of performance underpins on some outstanding awards, combined with further decrease in our share price, have strongly impacted the value of outstanding deferred awards held by employees, demonstrating inherent alignment with shareholders. For example, the 2022 negative Group Return on Equity (ROE) and the divisional loss before taxes in the Investment Bank division have resulted in a CHF 55 million negative adjustment to outstanding performance share awards pursuant to the terms of the awards. Over the period from 2017 to 2021, the aggregate value of deferred variable compensation awarded has decreased by 63% from their initial grant value, down from CHF 4.7 billion to CHF 1.7 billion, assuming employees sold shares at the earliest opportunity following vesting. Assuming all of the awards initially made remained currently outstanding, and based on a share price at the end of 2022 of CHF 2.76, the aggregate value of deferred compensation would represent approximately CHF 1 billion, approximately 78% lower than the initial grant value.

Executive Board compensation outcomes

The threshold levels for each of the financial metrics under the new framework introduced for 2022 were not met. While continued progress against key strategic, cultural and risk objectives resulted in the non-financial elements being assessed close

to target, the formulaic application of the aggregate cap on the Executive Board variable compensation pool of 2% of Group income before taxes resulted in a zero variable compensation pool. As such, aggregate Executive Board compensation for 2022 consisted of CHF 32.2 million of fixed compensation only. This follows two years of constrained compensation levels for the Executive Board.

- Refer to “Compensation outcomes for 2022” in Executive Board compensation for further information.

Chief Executive Officer (CEO) compensation

Mr. Körner was appointed Group CEO on August 1, 2022. His total compensation granted for 2022 amounted to CHF 2.5 million (including compensation for his role as an Executive Board member prior to becoming the Group CEO).

In terms of realized compensation for 2022, the Group CEO received CHF 2.5 million, which comprised CHF 2.3 million of base salary and CHF 0.2 million for pension and benefits.

- Refer to “Compensation of the Group CEO” in Executive Board compensation for further information.

Enhancements to the Group and Executive Board compensation framework

Following the announcement of the revised Group strategy in October 2022, the Compensation Committee undertook a review and simplification of the compensation framework to ensure that it continues to motivate and incentivize employees appropriately. The deferral framework applied to Group employees has been closely aligned to peer practices, and variable incentive compensation has been awarded in a combination of immediate cash awards, deferred cash awards (including, in the form of upfront cash awards), and deferred share awards. For performance year 2022 and onwards, performance share awards and contingent capital awards will no longer be granted to employees including the Executive Board, however any such outstanding awards will continue to vest according to their terms and conditions.

For the Executive Board, the Compensation Committee agreed that the framework implemented in 2022 remains largely fit for purpose. Some refinements have been made to the financial metrics to place more focus on our core businesses over the next few years, while the non-financial elements have been streamlined to focus on critical transformation-related metrics where relevant.

Specifically, for 2023 we have:

- Incorporated financial metrics that reflect the “New Credit Suisse”, which are Core return on tangible equity (RoTE) and Core adjusted income before taxes; and
- Introduced a cost base target as a key yearly milestone to measure the successful execution of the transformation strategy against our cost reduction goals.
- Refer to “Compensation framework for Executive Board members for 2023” in Executive Board Compensation for further information.

In addition, the nature of the transformation announced in October 2022 led the Compensation Committee to re-evaluate the

appropriateness of two compensation design features introduced in 2022, namely the cap on aggregate Executive Board variable incentive compensation of 2% of income before taxes and the relative total shareholder return (RTSR) condition whereby variable compensation would be delivered entirely in the form of deferred share awards in the event of a ranking within the bottom quintile of the defined RTSR peer group. Recognizing that situations may arise where there may be the appearance of a conflict between the shorter-term and longer-term interests of the business, and the one-year focus of the cap and RTSR condition, the Compensation Committee has decided to suspend both features for the period 2023-2025, to ensure the ability to provide market-competitive compensation to our leadership team. While the aggregate cap is temporarily suspended, the individual caps on maximum annual variable incentive awards remain in place, namely 4x base salary for the CEO and 5x base salary for all other Executive Board members, excluding the Transformation Award. The Compensation Committee retains its overall discretion to ensure that compensation outcomes are aligned with underlying performance, and can evaluate extraordinary and unanticipated events in assessing potential adjustments to financial results for the purpose of determining performance against financial incentive targets.

Transformation Award for the 2023-2025 turnaround period

In February 2023, the Compensation Committee granted a one-time Transformation Award to approximately 500 employees globally who hold senior leadership positions and other talent identified as being critical to the “New Credit Suisse” strategy. This will include the Executive Board members, subject to shareholder approval at the 2023 Annual General Meeting (AGM). The purpose of this award is to retain and motivate key managerial, business development, and expert resources across the Group to ensure efficient and timely delivery of the transformation, as well as full achievement of our publicly communicated 2025 Group RoTE and cost base reduction targets. The entire Board of Directors regards this initiative as critical to the successful execution of our strategy and has given it unanimous support.

- Refer to “Compensation at a glance” for further information.

CS First Boston incentive award

In order to incentivize and retain the leadership of CS First Boston, a group of senior leaders is expected to be provided with an equity award to participate in the value of CS First Boston in the event of an initial public offering (IPO). Full details of these awards will be provided in connection with an IPO prospectus, if applicable.

Board of Directors compensation

Aggregate compensation for the Board of Directors (Board), including compensation for certain Group Board members serving on subsidiary boards, was CHF 10.4 million, compared with the amount of CHF 13.0 million that was approved prospectively by shareholders at the 2022 AGM. Given the poor financial performance in 2022 and challenging situation for the firm at the

beginning of the three-year transformation, the Chairman proposed to voluntarily waive his chair fee of CHF 1.5 million for the 2022 AGM to 2023 AGM period, and this proposal was accepted by the Board. Following a benchmarking analysis of board chair pay at leading Swiss companies, the Chairman's total compensation will be adjusted from CHF 4.5 million to CHF 3.8 million starting from the 2023 AGM to 2024 AGM period. To enhance alignment with shareholders, the share portion of the Chairman's fees will be increased from the current 33% to 50%, such that his total compensation will be payable 50% in cash (base fee) and 50% in shares (chair fee), blocked for a period of four years. Furthermore, a new minimum shareholding requirement of 500,000 shares has been introduced for the Chairman, in line with the minimum shareholding requirement applicable to Executive Board members. For the 2023 AGM to 2024 AGM period, the aggregate Board compensation amount is proposed to be kept stable, at CHF 13.0 million.

- Refer to "Board of Directors compensation" for further information.

"Say-on-Pay" compensation proposal sat the 2023 AGM

The Compensation Committee and the Board of Directors understand that some of the compensation program actions we have taken diverge from what companies would implement in normal circumstances, but strongly believe that the extraordinary context in which the Group currently operates requires decisive measures. We look forward to the successful completion of our transformation, allowing for a timely return to more conventional compensation outcomes. With this in mind, at the 2023 AGM, we will be seeking shareholder support for the say-on-pay proposals described in the following table:

<u>Approved at 2022 AGM</u>	<u>Proposal for 2023 AGM</u>	<u>Explanation for 2023 proposal</u>
Executive Board compensation		
<ul style="list-style-type: none"> • Fixed compensation for 2022-2023 AGM period: CHF 34 million maximum amount • 2021 STI award CHF 8.6 million • Share-based replacement awards for new members: CHF 12.1 million • Not applicable 	<ul style="list-style-type: none"> • Fixed compensation for 2023-2024 AGM period: CHF 34 million maximum amount • Not applicable • Not applicable • Transformation award (fair value at grant): CHF 30.1 million 	<ul style="list-style-type: none"> • Same level as prior year • Base salary: CHF 2.7 million for CEO with a maximum of CHF/USD 2.2 million for other Executive Board members • Not applicable • Not applicable • Maximum award value at grant of CHF 70 million (if all performance conditions met)
Board of Directors compensation		
<ul style="list-style-type: none"> • Board compensation for 2022-2023 AGM period: CHF 13 million maximum amount 	<ul style="list-style-type: none"> • Board compensation for 2023-2024 AGM period: CHF 13 million maximum amount 	<ul style="list-style-type: none"> • Same as prior year level • Base Board fee: CHF 250,000 for Board members, CHF 1.9 million for Chairman

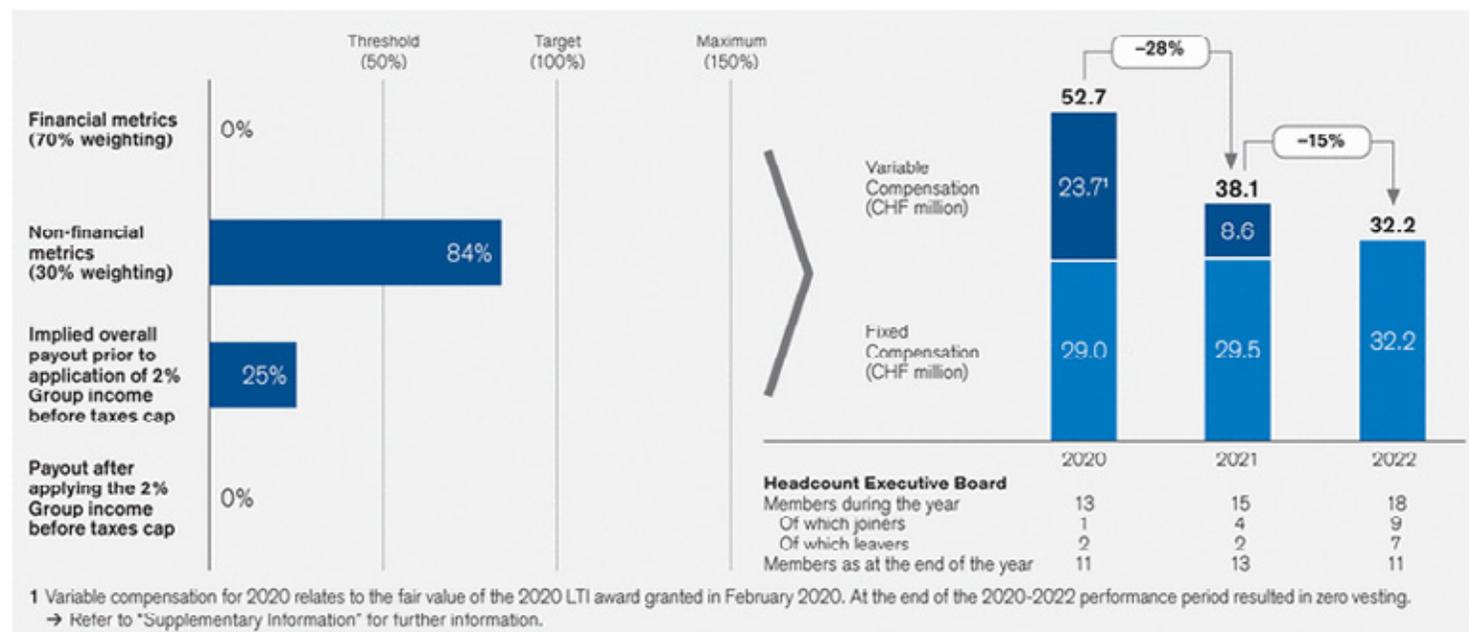
Further information on each of these proposals will be contained in the AGM invitation and will also be available at [credit-suisse.com/agm](https://www.credit-suisse.com/agm).

On behalf of the Compensation Committee, I would like to wholeheartedly thank our employees and the Executive Board for their continued support during this extremely difficult compensation round for Credit Suisse Group, as well as thank shareholders again for their input and feedback over the last 12 months. The Compensation Committee members remain committed to supporting the Group's transformation process and are very confident and truly excited about the journey ahead.

/s/ Christian Gellerstad
 Christian Gellerstad
 Chair of the Compensation Committee
 Member of the Board
 March 2023

Executive Board compensation outcomes

The total variable compensation pool for the Executive Board is determined based on the achievement of annual financial (70% weighting) and non-financial objectives (30% weighting). For 2022, none of the threshold performance levels for the financial metrics were met. While the non-financial achievements were close to target, the Compensation Committee also considered the Group’s overall financial and share price performance during 2022. Ultimately, the application of the cap on the Executive Board’s variable compensation pool, based on 2% Group income before taxes, resulted in zero variable compensation for the Executive Board for 2022, given the Group’s reported loss.

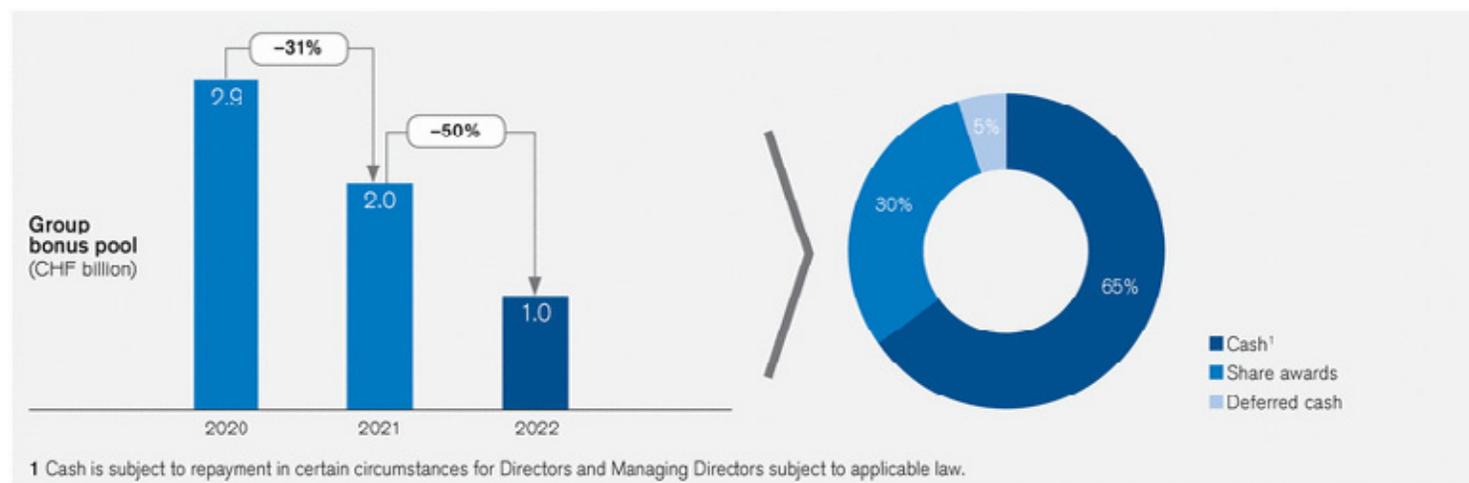


- Refer to "Executive Board compensation" for further information.

Group variable compensation outcomes

The Group variable incentive compensation awarded for 2022 was significantly constrained by the Group’s poor financial performance.

The total pool of CHF 1,000 million is 50% lower than the 2021 pool and 66% lower than in 2020. Approximately 34% of the variable incentive compensation awarded is deferred, with a vesting period of at least three years after award grant.



Other variable compensation awarded in 2022 included CHF 497 million for the Strategic Delivery Plan (SDP) awards granted to most Managing Directors and Directors to incentivize the longer-term delivery of the Group’s strategy, and CHF 367 million of retention awards to key talent and senior management in the form of deferred cash (subject to clawback) and deferred share-based awards, mostly to employees in the Investment Bank division.

- Refer to “Group compensation” for further information.

Transformation Award aligned with implementation of the Group's strategy over 2023-2025

The Transformation Award is a one-time award consisting of a deferred share-based award for Executive Board members (subject to shareholder approval at the 2023 AGM) and, for employees who are not members of the Executive Board, a combination of a deferred share-based award and a deferred cash award. The deferred share-based award is subject to achievement of performance conditions being achieved by the end of the 2023-2025 performance period. The Transformation Award is considered critical to retain and motivate key individuals to deliver against our ambitious transformation journey through what is expected to be a highly challenging period. The design is intended to:

- strongly align management's interests with those of shareholders through stretch performance conditions and increased exposure to equity;
- provide a clear focus on return metrics to incentivize sustainable value creation for shareholders;
- motivate delivery of objectives through 2023-2025, to complement the existing annual framework; and
- payout of deferred share-based awards subject to performance conditions, with no payout for results below threshold level.

The eligibility and key features are described in the following table.

	General Features	Executive Board specific features
Quantum	<ul style="list-style-type: none"> ▪ Aggregate fair value¹ at grant of CHF 230.3 million (maximum award value of CHF 350 million), including the Executive Board members ▪ Typically, approximately 0.4x to 0.9x of annual variable compensation of participant (excluding Executive Board members) ▪ The number of shares to be awarded is based on dividing the award value by CHF 3.82³ 	<ul style="list-style-type: none"> ▪ Aggregate fair value¹ at grant CHF 30.1 million (maximum award value at grant of CHF 70 million) ▪ Median 1.5x yearly target of participant's variable compensation ▪ Maximum award value based on share price at end of 2025 is capped at 3x initial award value (i.e. CHF 210 million) and the number of shares vesting will be reduced accordingly if the limit is reached
Participants	<ul style="list-style-type: none"> ▪ ~500 employees in senior leadership positions and identified as critical talent required to deliver the Group's strategic goals, approximately 1% of total employees 	<ul style="list-style-type: none"> ▪ All Executive Board members including the Group CEO
Award type	<ul style="list-style-type: none"> ▪ 50% deferred cash / 50% deferred share award (excluding Executive Board members) 	<ul style="list-style-type: none"> ▪ 100% deferred share award
Vesting	<ul style="list-style-type: none"> ▪ No vesting of share award if share price is below CHF 3.82³ as at December 31, 2025 ▪ Deferred cash award (excluding Executive Board members): ratable vesting over two annual installments from grant ▪ Share award: 100% cliff vesting at end of 2025 	<ul style="list-style-type: none"> ▪ Share award: 100% cliff vesting at end of 2025

Deferred share award performance conditions	Measurement period	Weighting	Threshold (33% of award value)	Target* (67% of award value)	Maximum (100% of award value)
Group RoTE (reported)	FY2025	70%	5%	6%	7.5%
Cost base ² (CHF billion)	FY2025	30%	CHF 15.0	< CHF 14.5	CHF 14.0

*Performance conditions aligned to 2025 financial targets

¹ The fair value of the Transformation Awards as of the date of grant is determined using a probabilistic valuation method applied by Deloitte LLP.

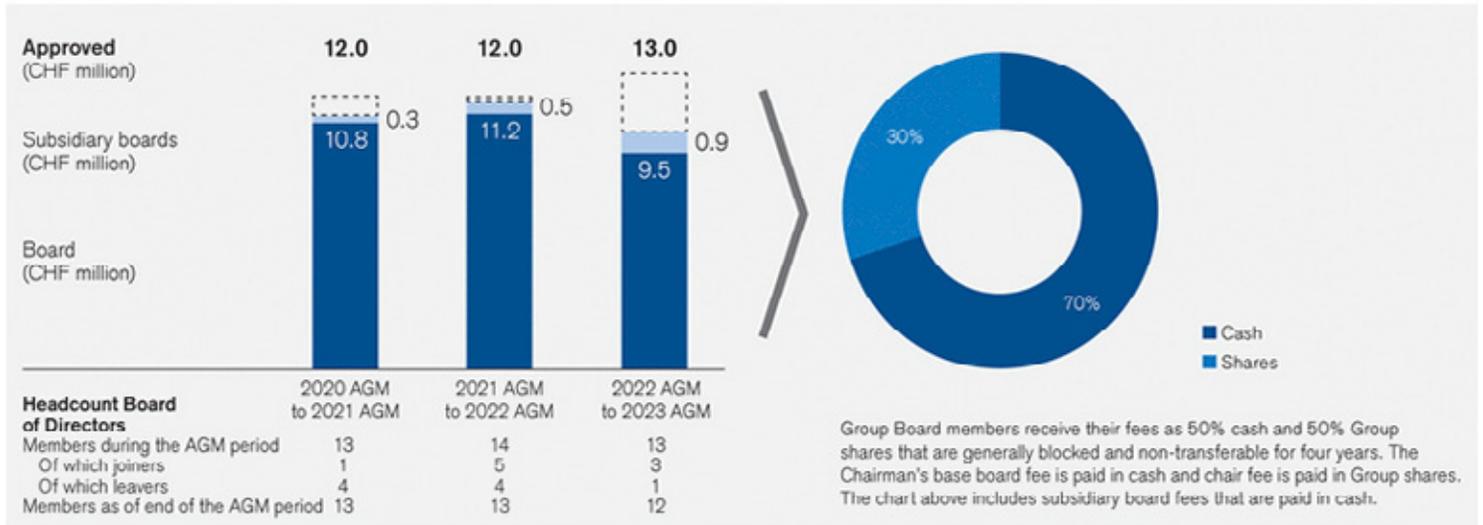
² Cost base refers to adjusted operating expenses at constant 2022 FX rates and on constant perimeter, before taking into account the Securitized Products transaction and other divestments.

³ Price represents the subscription price for private placement to qualified investors in fourth quarter of 2022.

- Refer to "Group compensation" for further information.

Board of Directors compensation

Aggregate compensation for the Board, including compensation for certain Group Board members serving on subsidiary boards, was CHF 10.4 million, compared with CHF 13.0 million approved by shareholders and CHF 11.7 million paid for the prior year.



- Refer to “Board of Directors compensation” for further information.

224 Compensation

Compensation framework, policy, and governance

Compensation strategy and objectives

Consistent with prior years, our key compensation objectives are to maintain compensation practices that:

- foster a **performance culture** based on merit that differentiates and rewards excellent performance;
- **attract and retain employees**, and motivate them to achieve results with integrity and fairness;
- **balance the mix of fixed and variable** compensation to appropriately reflect the value and responsibility of the role performed, and to influence appropriate behaviors and actions;
- promote **effective risk management** practices that are aligned with the Group's compliance and control cultures;
- create a culture that adheres to **high standards of conduct and behavior aligned with values**, through a system of applying both malus and rewards;
- encourage **teamwork and collaboration** across the Group;
- achieve a **balanced distribution of profitability between shareholders and employees** over the long term, subject to Group performance and market conditions; and
- take into account the long-term performance of the Group, in order to **create sustainable value for shareholders**.

Executive Board compensation framework

Executive Board compensation framework 2022

As set out in the 2021 Compensation Report, a revised framework was introduced for the Executive Board for 2022. The aggregate Executive Board variable compensation pool is determined based on the achievement of annual financial (70% weighting) and non-financial (30% weighting) performance objectives set at the beginning of the year. To determine the aggregate Executive Board variable compensation pool, the Compensation Committee reviews the Group's performance against these objectives at the end of the performance period. In making its assessment, the Compensation Committee also takes into account how the results compare with those delivered in the prior year, relative peer performance, and market positioning and trends. The total pool amount for 2022 was subject to a cap of 2% of Group income before taxes excluding any items that the Compensation Committee determines are not reflective of underlying performance, resulting in no variable compensation awarded for 2022.

Executive Board compensation design and refinements for 2023

Following its annual review of the Executive Board compensation framework, the Compensation Committee concluded that the overall Executive Board compensation design remains largely fit for purpose, but that several refinements to the annual framework were required for the period 2023 to 2025. First, the financial

performance conditions used to determine the Executive Board variable compensation pool will focus on Core return on tangible equity and Core adjusted income before taxes, as well as cost base target. Second, the Compensation Committee re-evaluated the appropriateness of two compensation design features introduced in 2022, namely the cap on aggregate Executive Board variable incentive compensation of 2% of income before taxes and the RTSR condition whereby variable compensation would be delivered entirely in the form of deferred share awards in the event of a ranking within the bottom quintile of the defined RTSR peer group. Recognizing that situations may arise where there may be the appearance of a conflict between the shorter-term and longer-term interests of the business, and the one-year focus of the cap and RTSR condition, the Compensation Committee has decided to suspend both features for the period 2023-2025, to ensure the ability to provide market-competitive compensation to our leadership team. While the aggregate cap is temporarily suspended, the individual caps on maximum annual variable incentive awards (excluding the Transformation Award) remain in place, namely 4x base salary for the CEO and 5x base salary for all other Executive Board members. The Compensation Committee retains its overall discretion to ensure that compensation outcomes are aligned with underlying performance, and can evaluate extraordinary and unanticipated events in assessing potential adjustments to financial results for the purpose of determining performance against financial incentive targets.

Compensation framework for Executive Board members for 2023

Variable compensation for Executive Board members will continue to be granted as 70% in deferred share awards subject to underpins. The remaining portion will be granted as cash awards, with 15% as immediate cash, and 15% deferred cash vesting in equal tranches over the second, third and fourth anniversaries of grant. In line with the simplification of the compensation framework for the overall Group, contingent capital awards (CCA) will no longer form part of the Executive Board compensation design.

Components		Vesting (Year 0 = performance year)						
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fixed	Salary and RBAs ¹							
	Pension and Benefits							
Variable	Cash (~15% of VC)		100%					
	Deferred Cash (~15% of VC)			1/3	1/3	1/3		
	Share awards (~70% of VC)					1/3	1/3	1/3

Minimum shareholding requirement

- Group CEO and Investment Bank CEO²: **1,000,000 shares**
- Other Executive Board members: **500,000 shares**

Share award threshold requirements – forfeiture of outstanding tranches due for settlement in the following year, if either:

- CET1 ratio falls below FINMA requirement² + 50 bps at the end of the year; or
- Reported loss before taxes for the full year.

The Compensation Committee has the discretion to review special circumstances, for example if major legacy items are not reflective of underlying performance.

- 1 Role-based allowance (RBA) in relation to one Executive Board member who is classified as a United Kingdom Prudential Regulation Authority Material Risk Taker (UK PRA MRT).
2 Refers to the statutory minimum requirement plus any additional amount FINMA may require for Credit Suisse specifically. Refer to "Swiss capital and leverage requirements for Credit Suisse" in Ill – Treasury, Risk, Balance sheet and Off-balance sheet – Capital management – Regulatory framework for further information.
3 This position was vacant as of December 31, 2022.

Some refinements have been made to the financial metrics for 2023 to place more focus on our core businesses and cost base reduction goals, and the non-financial elements have been streamlined to focus on critical transformation-related metrics where relevant, as shown in the table below.

Financial metrics (targets to be disclosed retrospectively)		Weighting
Group metrics	• Core return on tangible equity (RoTE) ¹	25%
	• Core adjusted income before taxes	15%
	• Cost base ²	10%
	• Relative total shareholder return (RTSR) ^{3,4}	10%
	• CET1 capital ratio	10%
Non-financial metrics		Weighting
Risk and Control	• Foster a strong risk culture across the first and second lines of defense	
	• Disciplined implementation of and adherence to the financial and non-financial risk frameworks	10%
	• Progress against regulatory remediation plans	
Values and Culture	• Achieve our Diversity and Inclusion goals	
	• Improve client and customer satisfaction	10%
	• Demonstrate strong leadership with robust succession planning	

- Sustainability**
- Growth in **AuM penetration** according to **Sustainable Investment Framework** classification
 - Growth in **sustainable finance** volume levels, progressing towards our CHF 300 billion goal by 2030
 - Positive contribution to the trajectory of our net zero 2030 and 2050 carbon reduction goals, including adherence to lending objectives in critical areas
 - Support positioning of Credit Suisse in terms of sustainability engagement and thought leadership, measured by external ESG rating agencies, research and thought leadership contributions as well as successful organization of sustainability events
 - No transaction or investment carrying high environmental and social risks that did not follow appropriate governance

10%

- 1 “Core” includes the Group, excluding Non-Core Unit and Securitized Products. The Core RoTE formula assumes that the tax charge for the Group is allocated 100% to the Core Return and that CSG Tangible Equity is used as the denominator in the calculation of the ratio.
- 2 Cost base refers to adjusted operating expenses at constant 2022 FX rates and on constant perimeter, before taking into account the Securitized Products transaction and other divestments.
- 3 Refer to “Competitive Benchmarking” in Group compensation for further information on the selected RTSR peer group.
- 4 RTSR payout schedule consistent with 2022 compensation framework. Refer to “2022 Executive Board summary performance” for further information.

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Group compensation framework

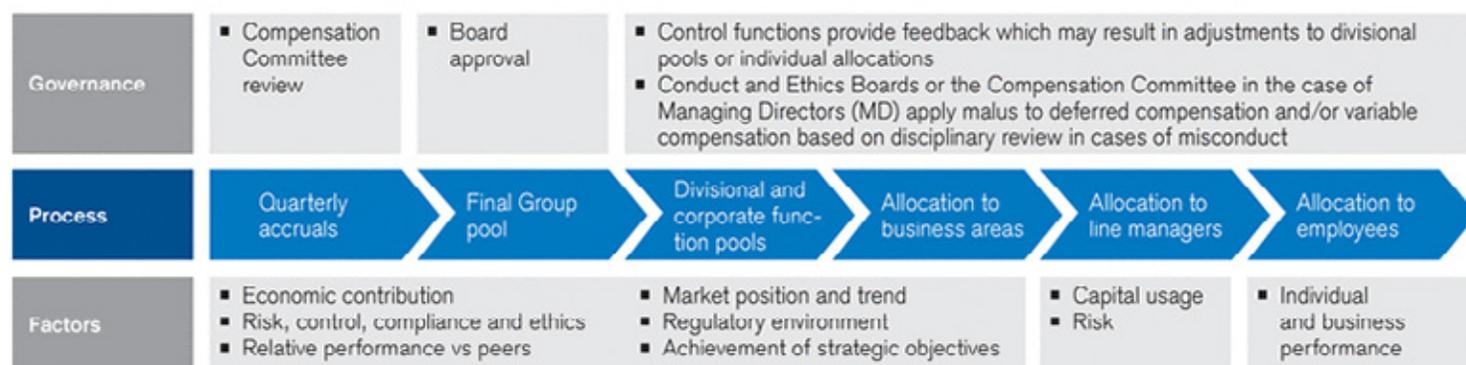
Determination of Group variable incentive compensation pool

The Group's variable incentive compensation pool for all employees, including the CEO and the other Executive Board members, is determined on an annual basis, with accruals made throughout the year. In determining the Group, divisional and corporate function pools, the Compensation Committee aims to balance the distribution of the Group's profits between shareholders and employees. The factors taken into consideration at the Group level, as well as at the divisional and functional levels, are shown in the illustration below. The primary driver of the initial pool amounts is economic contribution, with non-financial factors taken into consideration to arrive at the final level.

The Compensation Committee regularly reviews the accruals and related financial information and applies adjustments in exceptional circumstances to ensure that the overall size of the pools is consistent with the Group's compensation objectives.

The total amount of the variable incentive compensation pool for the corporate functions is not linked to the performance of the particular divisions that employees of the corporate functions support or oversee, but takes into account the Group-wide financial performance, non-financial factors and changes in headcount. Therefore, employees working in the corporate functions, including those performing control functions, are remunerated independently from the performance of the businesses they oversee or support. As with the business divisions, risk, control, compliance and conduct and ethics considerations and relative performance compared with peers, as well as the market and regulatory environment, are taken into account.

Determination of variable incentive compensation pools



The key elements of our current Group employees' compensation framework and how they applied to various employee categories are described below.

Base salaries

All employees are paid a base salary. Salary levels are based on the skills, qualifications and relevant experience of the individual, the responsibilities required by the role and external market factors.

Role-based allowances

Role-based allowances are a component of fixed compensation awarded to certain employees identified as Material Risk Takers (MRTs) under UK or EU regulatory requirements. These allowances are determined based on the role and organizational responsibility of the individual. Role-based allowances are deemed to be fixed compensation for the purposes of calculating the cap on variable incentive compensation awarded to MRTs as required by the Capital Requirements Directive V (CRD V) and Capital Requirements Regulation (CRR). The deferred cash allowance plan (DCAP) is a form of role-based allowance that is used primarily in the Americas.

Variable incentive compensation

Variable incentive compensation is paid in cash unless the total compensation awarded to an employee is greater than or equal to CHF 250,000 or the local currency equivalent or USD 250,000 for employees whose total compensation is denominated in US dollars. In these cases, a portion is paid in cash and the balance is deferred, vesting at a later date. For 2022, most Managing Directors and Directors who were granted a variable incentive compensation award received the non-deferred portion in the form of an upfront cash award (UCA). The UCA is a form of variable compensation, where employees receive an immediate cash payment that is subject to repayment during the following three-year period in the event of specified conditions such as a termination of employment by voluntary resignation, a termination for cause, engagement in conduct that is materially detrimental to the Group or other prohibited activity. The repayment amount equals the gross amount of the award, pro-rated based on the portion of time remaining in the three-year period from the departure date until the end of the three-year period.

Generally, employees receive the cash portion of their variable incentive compensation at a regular payroll settlement date close to the grant date. To comply with CRD V requirements, employees who hold material risk taker roles in respect of certain Group subsidiaries in the EU receive shares for 50% of the non-deferred portion of variable incentive compensation that would have been paid to them in cash. These shares are vested at the time of grant but remain blocked, that is, subject to transfer restrictions, for a period of time, generally 12 months.

The Compensation Committee made some refinement to deferral rates for Group employees. For 2022, these deferral rates ranged from 10% to 60% of the variable incentive award, compared with 10% to 50% for 2021. In general, the cash component of the variable incentive compensation for 2022 was limited to a maximum of CHF 150,000 per employee for Managing Directors and Directors and delivered as UCA. For all other employees, the cash component was limited to a maximum of CHF 2 million or the local currency equivalent (or USD 2 million for employees whose total compensation is denominated in US dollars) per employee.

Compensation components by employee category

Employee category	Total compensation			
	Fixed compensation	Variable compensation		
		Deferred compensation ¹		
	Base salary	Cash ²	Deferred Cash	Share awards
Managing Directors and Directors including Material Risk Takers and Controllers (MRTCs)				
Other employees, including MRTCs, with total compensation of CHF/USD 250,000 or higher				
Employees with total compensation lower than CHF/USD 250,000				

¹ Deferred compensation is applicable to employees with total compensation of CHF/USD 250,000 or higher.

² Includes UCA, which has a repayment condition.

Deferred compensation: key features

From 2022 onwards, performance share awards and contingent capital awards will no longer be granted, however any such outstanding awards will continue to vest according to the planned schedule.

Award	Delivery ¹	Vesting period ¹
Deferred Cash	<ul style="list-style-type: none"> Cash, deferred 	<ul style="list-style-type: none"> 3 years (ratable vesting) 4 years (ratable vesting) for CRD V MRTs, Investment Firms Prudential Regime Senior Managers and / or EU Identified Employees (who do not fall into the 5 or 7 years categories below) 5 years (ratable vesting) for Prudential Regulation Authority Risk Managers² and / or EU Senior Management 7 years (ratable vesting over five years, starting on the third anniversary of grant) for Prudential Regulation Authority Senior Managers³
Share awards	<ul style="list-style-type: none"> One registered share per award Dividend equivalents (payable upon delivery) 	<ul style="list-style-type: none"> 3 years (ratable vesting) 4 years (ratable vesting) for CRD V MRTs, Investment Firms Prudential Regime Senior Managers and / or EU Identified Employees who do not fall into the 5 or 7 years categories below 5 years (ratable vesting) for Prudential Regulation Authority Risk Managers² and / or EU Senior Management 7 years (ratable vesting over five years, starting on the third anniversary of grant) for Prudential Regulation Authority Senior Managers³

¹ Individuals in certain jurisdictions may be subject to conditions other than those outlined here in order to comply with local legal or regulatory requirements including MRTs / EU Identified Employees who are ineligible to receive interest or dividend payments (or equivalent) during the deferral period on variable compensation instruments awarded.

² Risk managers are a subset of the UK PRA MRT population, defined as individuals identified as having responsibility for managing or supervising risk-taking or significant risk functions for the Group's UK entities.

- 3 Senior managers are a subset of the UK PRA MRT population, defined as individuals who retain the greatest influence over the strategic direction of the Group's UK business, and who also perform one or more of the PRA and UK Financial Conduct Authority's designated senior management functions and "prescribed responsibilities" for the relevant UK entities.

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Chairman's chair fee ⁵	Group shares blocked and non transferable for four years ⁴	One installment at end of current board period
1,500,000		

Note: The Vice-Chair and Lead Independent Director received a fee of CHF 125,000 for the 2022 AGM to 2023 AGM period. This fee for this role is in line with market practice.

- 1 As per the 2023 AGM to 2024 AGM period, the Board has approved an increase in the GNC membership fees from CHF 50,000 to CHF 100,000.
 - 2 Committee chairs do not receive committee fees in addition to their chair fees.
 - 3 The Chairman does not receive any additional fees for chairing the GNC.
 - 4 The Compensation Committee may approve exceptions to the blocking period for certain circumstances.
 - 5 Proposal by Chairman to voluntarily waive this fee for the 2022 AGM to 2023 AGM period was accepted by the Board.
- Refer to “Board of Directors compensation” for further information.

Sustainability in compensation

Environmental, Social and Governance (ESG) related factors are considered in various stages of the compensation process:

- **Group variable incentive pool:** the Compensation Committee considers audit, disciplinary, risk and regulatory-related issues, among other factors, in order to determine appropriate adjustments to the Group, divisional and corporate functions pools. In addition, one of the key drivers of bonus pool development at the divisional level is economic contribution, which factors in the level of risk taken to achieve profitability;
- **Executive Board variable compensation:** Since 2022, 30% of the total Executive Board variable compensation pool is assessed based on ESG-related factors, with measurable objectives within the three non-financial categories of Risk and Control, Values and Culture, and Sustainability;
- **Equal pay policy:** Credit Suisse does not tolerate any form of discrimination, in particular discrimination based on ethnicity, nationality, gender, sexual orientation, gender identity, religion, age, marital or family status, pregnancy, disability, or any other status that is protected by local law. We recognize and value diversity and inclusion as a driver of success. Our policies and practices support a culture of fairness, where employment-related decisions, including decisions on compensation, are based on an individual's qualifications, performance and behavior, or other legitimate business considerations, such as the profitability of the Group or the division and department of the individual, and the strategic needs of the Group. Consistent with our long-term commitment to fair pay, the Compensation Committee reviews our pay practices on a regular basis to identify potential areas requiring more attention. In 2022, we engaged a third-party consultant to conduct a gender pay equity analysis for certain major locations. The analysis confirmed that we provide "equal pay for equal work" for women and men in the same job and at the same level. This analysis covered employees at all levels within the Group, who were based in Switzerland, Germany, Spain, France, the United Kingdom, Hong Kong, India, Italy, Luxembourg, Poland and Singapore. Taking into account factors such as role, experience, tenure, and geography, the analysis concluded that, in these major locations, women earned 99% of what men earned on a total compensation basis. In recognition of Credit Suisse's commitment to gender pay equity, the largest Credit Suisse employing entities in Switzerland were awarded the quality label from the Social Partnership Centre for Equal Pay in the Banking Industry and have been certified with the "Fair Pay" label (most recently in 2021). We will continue to review compensation to ensure that our commitment to equal pay is upheld.

Compensation Governance

The Compensation Committee

The Compensation Committee is the supervisory and governing body for compensation policies, practices and plans. In designing and setting compensation, the Compensation Committee aims to make decisions in the best interests of the Group and to align the interests of the Group's employees to those of shareholders and other stakeholders. The Compensation Committee reviews proposals regarding Group, Executive Board and Board compensation, and makes recommendations to the Board for approval. Total Executive Board compensation and Board compensation are also subject to shareholder approval pursuant to Swiss law and the Articles of Association (AoA).

The Compensation Committee consists of at least three members of the Board, all of whom must be independent. The members during the 2022 AGM to 2023 AGM term were Christian Geller-stad (Chair), Iris Bohnet, Michael Klein, Shan Li, and Amanda Norton. Michael Klein ceased to be member on October 27, 2022. The Board has applied the independence criteria of the SIX Swiss Exchange Directive on Information relating to Corporate Governance, the Swiss Financial Market Authority FINMA (FINMA), the Swiss Code of Best Practice for Corporate Governance, and the listing standards of the New York Stock Exchange (NYSE) and the Nasdaq Stock Market (Nasdaq), in determining that all of these individuals are independent.

- Refer to "Independence" in IV – Corporate Governance – Board of Directors for more information on how the Group determines the independence of its Board members.

Compensation Committee activities

The Chairman and the CEO may attend the Compensation Committee meetings, and the Compensation Committee Chair determines the attendance of other Board members, Executive Board members, senior management, compensation advisers and external legal counsel, as appropriate. The Chairman, CEO, Executive Board members and senior management do not participate in discussions which relate to their own compensation outcomes.

In addition to the 28 investor and proxy adviser meetings held by the Compensation Committee Chair, during 2022, the Compensation Committee held 12 internal meetings and calls, including one workshop, with an overall attendance rate of 91%.

The Compensation Committee's focus areas in 2022 are summarized in the following table:

Compensation Committee activities in 2022

	Jan	Feb	Mar	Apr	Jun	Aug	Sept	Oct	Dec
Compensation governance, design and disclosure									
Review of compensation policy and charter updates					•			•	
Review of Compensation Report		•	•						•
Review and refinement of Executive Board compensation design	•	•	•	•	•	•	•	•	•
Review of Group compensation structure and award plans	•	•	•	•	•	•	•	•	•
Compensation Committee self-assessment and focus areas	•								
Risk and regulatory									
Review of input from control functions		•							•
Review of any disciplinary events/potential application of malus		•		•	•	•		•	•
Review of regulatory developments					•				•
Annual compensation review									
Accruals and full year forecast of variable incentive compensation pools		•		•				•	
Performance assessment and overall Group pool recommendation	•	•							•
CEO and Executive Board performance objectives and target setting	•	•	•	•					
CEO and Executive Board performance assessment and awards		•							•
Review of Board fees				•					
External									
Review of shareholder engagement and feedback	•			•					
Review of market trends				•	•				
Review of benchmarking data		•							

Advisers to the Compensation Committee

The Compensation Committee is authorized to retain external advisers to provide support as it carries out its responsibilities. Deloitte LLP (Deloitte) has been retained to assist the Compensation Committee in ensuring that the Group's compensation programs remain competitive, responsive to regulatory developments and in line with the compensation policy. Deloitte has appointed a senior consultant to advise the Compensation Committee. Apart from assisting the Compensation Committee, this senior consultant does not provide any other services to the Group. The Compensation Committee also obtained external legal advice during 2022 on various matters relating to compensation policy and design. Prior to appointment, the Compensation Committee conducted an independence assessment of its advisers pursuant to the rules of the United States Securities and Exchange Commission (SEC) and the listing standards of the NYSE and the Nasdaq.

Compensation policy

The compensation policy applies to all employees and compensation plans of the Group. It contains a detailed description of the Group's compensation principles and objectives as well as the compensation programs. It also sets out the standards and processes relating to the development, management, implementation, and governance of compensation. The compensation policy is available at [credit-suisse.com/compensation-policy](https://www.credit-suisse.com/compensation-policy).

Approval authority

The approval authorities for setting the compensation policy and compensation for different groups of employees are defined in the Group's Organizational Guidelines and Regulations and the Compensation Committee charter is available at [credit-suisse.com/governance](https://www.credit-suisse.com/governance).

Action	Compensation Committee	Board
Establish or change the Group's compensation policy	R	A
Establish or change compensation plans	R	A
Set variable incentive compensation pools for the Group and the divisions	R	A
Determine Executive Board compensation, including for the CEO	R	A ¹
Determine Board compensation, including for the Chairman	R	A ¹
Determine compensation for the Head of Internal Audit	A ²	n/a
Determine compensation for MRTCs and other selected members of management	A	n/a

R = recommendation; A = approval

- 1 Subject to shareholder approval requirement pursuant to the Swiss Code of Obligations and the Articles of Association.
- 2 In consultation with the Audit Committee Chair.

Provisions of the Articles of Association related to compensation and

loans

The AoA contain provisions that govern and outline the principles concerning the compensation of and loans granted to the Board and Executive Board. These are summarized below. The summaries do not purport to be complete and are qualified in their entirety by reference to the AoA. The AoA are available at credit-suisse.com/articles.

Say-on-pay vote

The AGM approves on an annual basis the compensation of the Board in advance for the period up until the next AGM (Art. 8a para. 1 AoA) and the compensation of the Executive Board as a maximum amount or as maximum partial amounts in advance or retroactively for the period described in the proposal of the Board to the AGM (Art. 8b para. 1 AoA). The details on the say-on-pay vote are governed by Art. 8a of the AoA for the compensation of the Board and Art. 8b of the AoA for the compensation of the Executive Board

Supplementary amount for new Executive Board members

If new members join the Executive Board or members of the Executive Board are promoted during the period for which compensation has been approved in advance by the AGM and the compensation approved in advance proves insufficient, a further 30% of the aggregate amounts already approved may be used for the compensation of such members (Art. 8c AoA).

Compensation principles

The compensation of the members of the Board may be paid partly in the form of Group shares (Art. 8a AoA). The compensation of the members of the Executive Board consists of a fixed component and a variable component. The variable component comprises short-term and long-term incentive compensation elements, which may both contain deferred compensation elements and are subject to the achievement of performance targets, which the Board sets on a regular basis. The compensation may be paid partly in the form of Group shares, derivatives based on Group shares or other financial instruments (Art. 8b AoA).

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Loans

The Group may grant loans up to a maximum amount of CHF 20 million to each member of the Board at market conditions (Art. 20d AoA) and to each member of the Executive Board at standard terms that apply in the financial sector (Art. 20h AoA).

Risk and control considerations

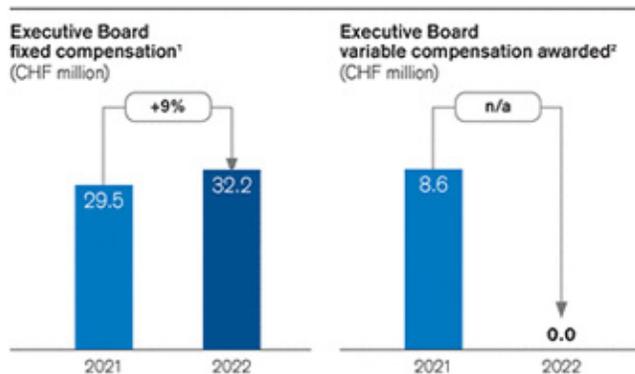
During its annual review of the Group's performance, the Compensation Committee considers input from the Risk Committee Chair with respect to risk considerations, and the Audit Committee Chair with respect to internal control considerations as well as the Conduct and Financial Crime Control Committee Chair with respect to matters concerning financial crime compliance. The Compensation Committee also considers input from various corporate functions including Risk, Compliance, General Counsel, People and Internal Audit, regarding control and compliance issues and any breaches of relevant rules and regulations or the Group's Code of Conduct.

To meet regulatory guidelines regarding employees engaged in risk-taking activities, the Compensation Committee reviews and approves the compensation for employees identified as MRTCs. The Risk Committee is involved in the review process for the compensation of MRTCs.

- Refer to "Focus on risk and control" in Supplementary information for further information.

Executive Board compensation

Compensation outcomes for 2022



Figures above may contain rounding differences.

¹ Fixed compensation includes base salary, role-based allowances, and pension and other benefits.

² 2021 Executive Board variable compensation includes only the 2021 STI as the 2021 LTI was cancelled.

Fixed compensation

Total fixed compensation for the Executive Board was CHF 32.2 million in 2022, compared with CHF 29.5 million in 2021.

Variable compensation

The threshold levels for each of the financial metrics under the new framework introduced for 2022 were not met. While the non-financial elements were assessed being close to target, the formulaic nature of the maximum cap on aggregate Executive Board variable incentive compensation of 2% of Group income before taxes resulted in a zero variable compensation pool for the Executive Board. Therefore, total aggregate Executive Board compensation for 2022 consisted of CHF 32.2 million of fixed compensation only.

The achievement against the financial performance metrics and non-financial assessment are shown in the table below.

2022 Executive Board summary performance

Performance criteria	Weighting	Performance levels			Payout level		
		Threshold (50%)	Target (100%)	Maximum (150%)	0%	Threshold (50%)	Target (100%)
Group financial metrics							
Reported return on tangible equity (RoTE)	25%	4.00%	5.30%	8.00%	0%		
Adjusted income before taxes (CHF billion)	25%	2.50	3.75	5.00	0%		
Relative total shareholder return (RTSR)	10%	Above bottom quartile of peer group	Rank 10th of peer group	Top quartile of peer group	0%		
CET1 capital ratio	10%	13.75%	14.125%	14.50%	0%		
Non-financial metrics	30%	See separate description below			84%		
Total	100%				25%		
Total payout after applying the 2% Group income before taxes cap					0%		

Note: The Return on tangible equity and the CET1 capital ratio used to assess the 2022 Executive Board performance exclude the impact of the capital raise in fourth quarter of 2022 (CHF 4,014 million), which was not in place when the target was set. Adjusted results and RoTE are non-GAAP financial measures and are used in this table for the purposes of defining performance target levels for compensation. Adjusted results exclude certain items included in our reported results. Refer to “Reconciliation of adjustment items” in II – Operating and financial review – Credit Suisse for further information. RoTE is calculated as net income attributable to shareholders divided by average tangible shareholders’ equity. Tangible shareholders’ equity, a non-GAAP financial measure, is calculated by deducting goodwill and other intangible assets from total shareholders’ equity as presented in our balance sheet.

Non-financial metrics (30% weighting)		Comments
Risk and Control	Implementation / remediation of key regulatory and audit items	<ul style="list-style-type: none"> Percentage of regulatory projects reporting “green” status has increased, while decreased in “red” status Substantial enhancement to management focus, centralization and consistency with Strategic Regulatory Remediation Office Number of negative audits per total audit reports as well as high risk issues have reduced year over year
	Strengthening risk and compliance teams, systems and processes in the 1LoD and 2LoD organizations	<ul style="list-style-type: none"> Increase in strength and depth of Risk & Compliance leadership with added expertise and stature Ongoing progress in risk and control capabilities which proved critical in managing Russia/Ukraine and overall challenging markets Further strengthened risk ownership by 1LoD and migrating appropriate functions from 2LoD to 1LoD Enhanced governance through creation of Executive Board Risk Management Committee sub-committees for Financial and Non-Financial Risk
	Reduction of new Non-Financial Risk incidents	<ul style="list-style-type: none"> Count decreased slightly year over year, but continues to require ongoing focus
	Disciplined implementation of and adherence to the financial risk framework	<ul style="list-style-type: none"> Substantial reduction in credit provisions relative to 2021 result Improvement on almost all major aspects compared with last year, with reduction in risk limit breaches
Values and Culture	Improving overall risk culture	<ul style="list-style-type: none"> Feedback from the control functions indicates that whilst the Group’s risk culture has improved, the outlook is broadly flat and more work is required to embed change
	Improving Diversity and Inclusion	<ul style="list-style-type: none"> Acceleration is required to meet 2024 goals, specifically in senior roles and with a particular focus on black talent
	Further improve on other IMPACT values across the organization and improve overall employee satisfaction	<ul style="list-style-type: none"> Improvement compared with prior year in line with goal
Sustainability	Positive contribution to the trajectory of net zero plan 2030/2050	<ul style="list-style-type: none"> CO₂ emissions positively below trajectory on oil & gas & coal No transactions or investments carrying high environmental and social risks that did not follow appropriate governance were detected during 2022
	Growth in AuM penetration according to Sustainable Investment Framework classification	<ul style="list-style-type: none"> Penetration is slightly above previous year, but below ambition. Absolute volumes are down in line with overall AuM decrease
	Growth in sustainable finance	<ul style="list-style-type: none"> Approved cumulative transaction volumes are in line with ambition
	Overall contribution to support positioning Credit Suisse as a sustainability leader	<ul style="list-style-type: none"> Flagship Sustainability publications are in line with expectations, supported by launch of Center for Sustainability Overall external rankings remain stable with two slight rating deteriorations (S&P and CDP) and one improvement (RepRisk) Organization of Sustainability Global events in line with ambition, with main Sustainability event of the year, CS Sustainability Week, which was overall a success and well received by participants

Compensation of the Group CEO

Mr. Körner assumed the role of Group CEO on August 1, 2022, and was previously in the role of CEO Asset Management on the Executive Board. His total compensation for 2022 was CHF 2.5 million, of which CHF 1.2 million related to his role as Group CEO.

In terms of realized compensation for 2022, Mr. Körner received CHF 2.5 million, which comprised CHF 1.1 million base salary and CHF 0.1 million pension and benefits relating to his role as Group CEO, and CHF 1.2 million base salary and CHF 0.1 million pension and benefits relating to his role prior to having been appointed CEO.

Compensation of the highest paid Executive Board member

The highest paid Executive Board member in 2022 was David Mathers, who stepped down from the role of Chief Financial Officer on September 30, 2022. For 2022, Mr. Mathers was awarded total compensation of CHF 3.9 million, which comprised CHF 2.1 million base salary (including a one-off payment in lieu of annual leave entitlements and notice period payments), CHF 1.5 million role-based allowance and CHF 0.3 million pension and benefits.

Mr. Mathers' total realized compensation for 2022 was CHF 4.3 million and comprised CHF 2.1 million base salary (including a one-off payment in lieu of annual leave entitlements), CHF 1.5 million role-based allowance and CHF 0.5 million in realized variable compensation related to deferred awards from prior years. In addition, Mr. Mathers received CHF 0.3 million in pension and other benefits.

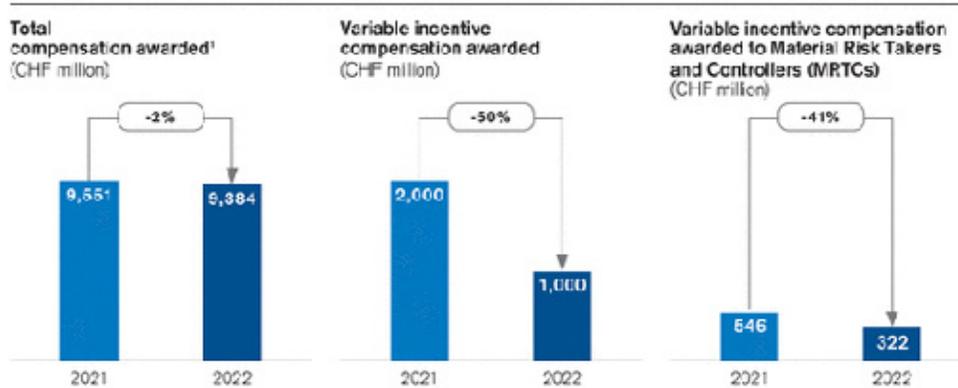
Executive Board compensation (audited)

in	Base salaries and role-based allowances	Pension and other benefits ¹	Total fixed compensation ^{2,3}	Total variable compensation ⁴	Total compensation ^{5,6}
2022 (CHF million)					
18 members	28.74	3.48	32.22	0.00	32.22
% of total compensation			100%	0%	
of which highest paid: David Mathers	3.55	0.34	3.89	0.00	3.89
% of total compensation			100%	0%	
of which CEO: Ulrich Körner	2.29	0.21	2.50	0.00	2.50
% of total compensation			100%	0%	
of which joiners and leavers during 2022 (16 individuals)	24.45	3.05	27.50	0.00	27.50
% of total compensation			100%	0%	
2021 (CHF million)					
15 members	27.21	2.26	29.47	8.59	38.06
% of total compensation			77%	23%	
of which highest paid: David Mathers	3.50	0.26	3.76	0.22	3.98
% of total compensation			94%	6%	
of which CEO: Thomas Gottstein	2.70	0.24	2.94	0.81	3.75
% of total compensation			78%	22%	
of which joiners and leavers during 2021 (6 individuals)	7.76	0.75	8.51	3.88	12.39
% of total compensation			69%	31%	

For the individuals who joined the Executive Board and the individuals who left the Executive Board during 2021 and 2022, compensation relating to the period during which they were members of the Executive Board and, for leavers, during their respective notice period is included in the table above. All figures stated are based on gross amounts, i.e. before any applicable mandatory tax or social security contributions.

- 1 Other benefits consist of housing allowances, expense allowances and relocation allowances.
- 2 For the total compensation awarded to the members of the Executive Board, the Group made payments of CHF 3.0 million in 2022 (for 2021 CHF 2.3 million) to cover the mandatory employer social security contributions as required under the social security laws applicable to the individual Executive Board members based on their domicile and employment status. These contributions do not form part of the Executive Board members' compensation.
- 3 Following the implementation in 2022 of the revised Executive Board compensation framework, and given that the grant price of share awards is not adjusted to remove the value of future dividend payments, the Compensation Committee decided to discontinue the voluntary separate disclosure of dividend equivalent amounts for share awards granted to Executive Board members, in line with the disclosure for other Group employees. The total fixed compensation amount for 2021 has been revised to conform to the current presentation to exclude CHF 0.51 million in dividend equivalents (of which CHF 0.14 million related to David Mathers and CHF 0.12 million related to joiners and leavers) that were previously disclosed as part of fixed compensation.
- 4 Variable compensation was 0% of total compensation in 2022 and ranged from 6% to 55% in 2021.
- 5 Replacement awards in the form of cash awards and share awards have been granted to individuals joining the Executive Board in 2022 to compensate them for salary replacement and cancellation of bonus and deferred awards by their previous employers. Mrs. Hannaford, Mr. Wildermuth and Mr. De Ferrari were granted awards of CHF 6.03 million, CHF 9.94 million and CHF 3.52 million, respectively, with a potential further amount of up to CHF 1.67 million in share awards for Mr. De Ferrari to be granted in 2023 subject to performance conditions relating to Mr. De Ferrari's previous employer. Replacement awards in relation to Mr. Joshi were valued at CHF 6.97 million and were granted in the first quarter of 2023. These one-time replacement awards did not form part of the compensation in the table above. Considering these payments, the total compensation of the Executive Board for 2022 amounted to CHF 60.35 million. No replacement awards were paid to Executive Board members for 2021.
- 6 No guaranteed bonus or sign-on bonuses were paid to Executive Board members for 2022 and 2021.

Compensation outcomes for 2022



¹ Total compensation awarded does not include Transformation Award.

Total compensation awarded

Total compensation awarded for 2022 of CHF 9,384 million was 2% lower than the prior year and included CHF 497 million for the Strategic Delivery Plan (SDP) awards granted to most Managing Directors and Directors to incentivize the longer-term delivery of the Group’s strategy. As previously described in the 2021 Compensation Report, the SDP awards were granted in February 2022 and are subject to service conditions and CET1 capital and leverage ratio underpins over the course of 2022-2024, and therefore are reported as part of other variable compensation awarded for 2022.

During 2022, CHF 367 million in retention awards to key talent and senior management in the form of deferred cash (subject to clawback) and deferred share-based awards were awarded, of which CHF 317 million was granted to employees in the Investment Bank division. The focus has been on critical roles where the risk of attrition was high and of immediate concern, and where the respective businesses would be significantly impacted. 1,143 employees received retention awards in 2022. This compares with CHF 395 million in retention awards granted in 2021 to 652 employees in total, of which CHF 299 million was awarded to key talent in the Investment Bank division.

- Refer to “Note 30 – Employee deferred compensation” in VI – Consolidated financial statements – Credit Suisse Group for further information on the SDP and other awards.

Total compensation awarded

For	2022			2021		
	Non-deferred	Deferred	Total	Non-deferred	Deferred	Total
Fixed compensation (CHF million)						
Salaries	5,536	294	5,830	5,341	259	5,600
Social security	605	—	605	622	—	622
Other ¹	934	—	934	808	—	808
Total fixed compensation	7,075	294	7,369	6,771	259	7,030
Variable incentive compensation (CHF million)						
Cash awards	647 ²	49	696	1,452 ²	55	1,507
Share awards	16	288	304	41	216	257
Performance share awards	—	—	—	—	161	161
Contingent Capital Awards	—	—	—	—	75	75
Total variable incentive compensation	663	337	1,000	1,493	507	2,000
Other variable compensation (CHF million)						
Cash severance	19	—	19	31	—	31
Retention awards	136	231	367	20	375	395
Strategic Delivery Plan	—	497	497	—	—	—
Other ³	43	89	132	27	68	95
Total other variable compensation	198	817	1,015	78	443	521
Total compensation awarded (CHF million)						
Total compensation awarded	7,936	1,448	9,384	8,342	1,209	9,551
of which guaranteed bonuses	38	30	68	32	31	63

Salaries include role-based allowances.

- 1 Included pension and other post-retirement expense of CHF 501 million and CHF 503 million in 2022 and 2021, respectively.
- 2 Included upfront cash awards of CHF 344 million for 2022 and CHF 799 million for 2021.
- 3 Included replacement awards to compensate employees for the equivalent fair value of deferred awards cancelled by previous employers as well as sign-on payments.

Median and average employee compensation

For 2022, the median annualized total compensation (excluding pension and benefits and dividend equivalents) of all of our bonus eligible employees of our company (other than the CEO) was CHF 110,000, and the annual total compensation of our CEO was CHF 2.29 million (excluding pension and benefits and dividend equivalents). Based on this information, for 2022, the ratio of the annual total compensation of our CEO to the median annual total compensation of all employees was calculated to be 20.8 to 1. This compared with a ratio 31.1 to 1 for 2021 which was based on annual CEO total compensation of CHF 3.51 million and median annual total compensation of all employees of CHF 113,000.

The average total compensation awarded for 2022 was calculated at approximately CHF 185,895 per employee (full-time equivalents), 2% lower compared with approximately CHF 189,542 per employee for the prior year, as calculated by taking the total compensation awarded for each year and dividing by the number of employees (full-time equivalents) reported at the end of each year. The 2021 average total compensation amount has been restated following the restatement of the 2021 year-end employee (full-time equivalents) to take into account the reduction-in-force program.

Variable incentive compensation awarded for 2022

As described in the Compensation Policy and Governance section, a key factor in determining the initial Group bonus pool is economic contribution. However, for 2022, sizing the pool purely on financial performance would have led to an inappropriate outcome given the efforts and achievements of the majority of employees and the need to incentivize and retain staff. Therefore, the Compensation Committee considered as a starting point a pool “floor” level of CHF 1.0 billion as appropriate. Although the Group’s performance against ESG-related objectives was in line with target, and the Compensation Committee noted the overall improvement in the Group’s risk culture as indicated by a review of control function feedback, no adjustments to the floor level were made. In considering market trends and positioning, the Compensation Committee acknowledged that peer compensation levels, while down compared with the prior year, were likely to remain relatively high compared with recent historical levels. Nevertheless, the Compensation Committee decided not to make any positive adjustments to the Group variable compensation floor level, which at CHF 1.0 billion, was 50% lower than the prior year pool.

Number of employees awarded variable incentive and other compensation

	2022			2021		
	MRTCs ¹	Other employees	Total	MRTCs ¹	Other employees	Total
Number of employees awarded variable incentive compensation						
Variable incentive compensation	1,155	36,875	38,030	1,432	43,024	44,456
of which Cash awards ²	1,155	36,875	38,030	1,432	43,024	44,456
of which Share awards	961	2,661	3,622	1,240	4,874	6,114
of which Performance share awards	—	—	—	1,266	797	2,063
of which Contingent Capital Awards	—	—	—	1,229	3,869	5,098
Number of employees awarded other variable compensation						
Cash severance	5	252	257	9	258	267
Retention awards	125	1,018	1,143	134	518	652
Strategic Delivery Plan	1,185	4,532	5,717	—	—	—
Guaranteed bonuses	5	140	145	12	156	168
Other ³	44 ⁴	312	356	40 ⁴	1,597	1,637

Excluding Executive Board members who were in office on December 31, 2022 or 2021, respectively.

- 1 Excluded individuals who may have been classified as MRTCs according to regulatory requirements of jurisdictions outside of Switzerland, particularly US-based revenue producers in the Investment Bank, who were classified as Covered Employees by the US Federal Reserve.
- 2 Included upfront cash awards.
- 3 Included replacement awards to compensate employees for the equivalent fair value of deferred awards cancelled by previous employers as well as sign-on payments.
- 4 For 2022 and 2021, there were no sign-on payments paid to MRTCs.

Group compensation and benefits expense

Compensation and benefits expenses recognized in the current year income statement include salaries, role-based allowances, variable compensation, benefits and employer taxes on

compensation. Variable compensation expense reflects the variable cash compensation for the current year and amortization of deferred compensation awards granted in prior years.

Group compensation and benefits expense

in	2022			2021		
	Current compensation	Deferred compensation	Total	Current compensation	Deferred compensation	Total
Fixed compensation expense (CHF million)						
Salaries	5,536	214 ¹	5,750	5,341	147 ¹	5,488
Social security ²	605	—	605	622	—	622
Other ³	934	—	934	808	—	808
Total fixed compensation expense	7,075	214	7,289	6,771	147	6,918
Variable incentive compensation expense (CHF million)						
Cash awards ⁴	300	423 ⁵	723	653	203 ⁵	856
Share awards ⁶	16	307	323	41	482	523
Performance share awards	—	(3)	(3)	—	290	290
Contingent Capital Awards	—	(3)	(3)	—	202	202
Total variable incentive compensation expense	316	724	1,040	694	1,177	1,871
Other variable compensation expense (CHF million)						
Cash severance	19	—	19	31	—	31
Retention Awards	—	174	174	—	123	123
Strategic Delivery Plan	—	248	248	—	—	—
Other ⁷	43	—	43	20	—	20
Total other variable compensation expense	62	422	484	51	123	174
Total compensation expense (CHF million)						
Total compensation expense	7,453	1,360	8,813	7,516	1,447	8,963

Salaries include role-based allowances. Restructuring expenses in connection with the strategic review of the Group were disclosed separately and were not part of the total compensation expenses.

- 1 Represented deferred fixed cash compensation expense of CHF 214 million and CHF 147 million related to cash awards for 2022 and 2021, respectively.
- 2 Represented the Group's portion of employees' mandatory social security.
- 3 Included pension and other post-retirement expense of CHF 501 million and CHF 503 million in 2022 and 2021, respectively.
- 4 Included CHF 14 million and CHF 8 million of compensation expense associated with replacement cash awards granted in 2022 and 2021, respectively, to compensate employees for the equivalent fair value of deferred awards cancelled by previous employers.
- 5 Included upfront cash awards expense.
- 6 Included CHF 16 million and CHF 13 million of compensation expense associated with replacement share awards granted in 2022 and 2021, respectively, to compensate employees for the equivalent fair value of deferred awards cancelled by previous employers.
- 7 Included sign-on payments.

Group estimated unrecognized compensation expense

The following table shows the estimated compensation expense that has not yet been recognized through the income statement for deferred compensation awards granted for 2022 and prior years that were outstanding as of December 31, 2022, with

comparative information for 2021. These estimates are based on the fair value of each award on the grant date, taking into account the current estimated outcome of relevant performance criteria and estimated future forfeitures. No estimate has been included for future mark-to-market adjustments.

Group estimated unrecognized compensation expense

end of	Deferred compensation		2022	Deferred compensation		2021
	For 2022	For prior-year awards		For 2021	For prior-year awards	
Estimated unrecognized compensation expense (CHF million)						
Share awards	262	203 ¹	465	224	349 ¹	573
Performance share awards	0	52	52	156	146	302
Strategic Delivery Plan	0	254	254	—	—	—
Contingent Capital Awards	0	55	55	72	134	206
Cash awards ²	392	586 ³	978	854	223 ³	1,077
Retention awards	—	343	343	—	284	284
Total estimated unrecognized compensation expense	654	1,493	2,147	1,306	1,136	2,442

- Included CHF 31 million and CHF 20 million of estimated unrecognized compensation expense associated with replacement share awards granted in 2022 and 2021, respectively, not related to prior years.
- Included estimated unrecognized compensation expense associated with upfront cash awards granted in 2022 and prior years.
- Included CHF 16 million and CHF 11 million of estimated unrecognized compensation expense associated with replacement cash awards granted in 2022 and 2021, respectively, not related to prior years.

Changes to the value of outstanding deferred awards

Employees experience changes to the value of their deferred compensation awards during the vesting period due to both implicit and explicit value changes. Implicit value changes primarily reflect market-driven effects, such as changes in the Group share price, changes in the value of the CCA and foreign exchange rate movements. Explicit value changes reflect risk adjustments triggered by conditions related to negative performance in the performance-based awards, forfeiture, or the malus provisions in all deferred awards. The final value of an award will only be determined at settlement.

- Refer to “Note 30 – Employee deferred compensation” in VI – Consolidated financial statements – Credit Suisse Group for further information.

The following table provides a comparison of the outstanding deferred compensation awards at the end of 2021 and 2022, indicating the value of changes due to ex post implicit and ex post explicit adjustments. For 2022, the change in value for the outstanding deferred compensation awards was mainly due to implicit adjustments driven primarily by changes in the Group share price, foreign exchange rate movements and changes in the value of CCA. With respect to the explicit adjustments on the value of performance share awards, a negative adjustment of CHF 55 million (based on the share price of CHF 2.76 as at December 31, 2022) was applied resulting from the negative Group ROE and the divisional loss before taxes in the Investment Bank division, with the remaining explicit adjustment related to forfeitures and application of malus provisions.

Outstanding deferred compensation awards

in / end		Total outstanding end of 2021	Granted in 2022	Paid out in 2022	Ex post explicit adjustments	Ex post implicit adjustments	Total outstanding end of 2022	% of which exposed to ex post explicit adjustments
Group (CHF million) 1								
Contingent Capital Awards	Cash-based	686	74	(223)	(42)	(135)	360	100%
Cash awards ²	Cash-based	196	160	(138)	(15)	—	203	100%
Share awards ³	Share-based	1,226	1,062	(396)	(105)	(1,222)	565	100%
Performance share awards	Share-based	685	164	(215)	(130)	(381)	123	100%
Total		2,793	1,460	(972)	(292)	(1,738)	1,251	—
Material Risk Takers and Controllers (CHF million) 4								
Contingent Capital Awards	Cash-based	294	42	(91)	(2)	(67)	176	100%
Cash awards ²	Cash-based	78	53	(44)	—	(2)	85	100%
Share awards ³	Share-based	413	555	(133)	(4)	(579)	252	100%
Performance share awards	Share-based	390	104	(108)	(57)	(252)	77	100%
Total		1,175	754	(376)	(63)	(900)	590	—

- Included MRTCs and Executive Board members who were in office on December 31, 2022.
- Included retention awards and upfront cash awards.
- Included retention awards and Strategic Delivery Plan awards.
- Excluded Executive Board members who were in office on December 31, 2022.

Transformation Award for 2023-2025

In February 2023, the Group granted Transformation Awards, in the form of deferred cash and share-based awards, with a total award value at grant of CHF 350 million (fair value at grant of CHF 230.3 million) to employees identified as being critical to the delivery of the transformation strategy. Of the total award value at grant, CHF 70 million relates to the Executive Board and is subject to approval at the AGM 2023. The Transformation Awards are designed to incentivize and reward key contributors for the successful delivery of the Group's transformation strategy and sustainable value creation for shareholders. For employees other than the Executive Board, the Transformation Award was granted in the form of both a deferred cash award and a deferred share award subject to performance conditions. For Executive Board members, the Transformation Award, subject to shareholder approval, will be granted 100% as deferred share-based awards with performance conditions.

The cash component of the Transformation Award vests over two years with one half of the cash awards vesting on each of the second anniversaries of the grant date (ratable vesting), with the exception of awards granted to individuals classified as MRTs, risk manager MRTs or senior managers or equivalents under the requirements of EU Capital Requirements Directive V and UK Investment Firms Prudential Regime.

The deferred share award component of the Transformation Award is scheduled to vest on the third anniversary of the grant date, only if the share price is at CHF 3.82 or higher on December 31, 2025. Further, no portion of the deferred share award would vest if the following threshold performance levels are not achieved:

- The Group's reported Group RoTE is at or above 5%; and
- The Group's cost base does not exceed CHF 15 billion.

The Compensation Committee will ensure that the final Transformation Award vesting outcome is aligned with underlying performance, including consideration of risk and control factors.

- Refer to "Compensation at a glance" for further information.

Other awards granted in 2023

In the first quarter of 2023, the Group granted additional compensation awards to certain employees where attrition remains a concern. Share-based awards of CHF 38 million and deferred cash allowance plan awards of CHF 30 million were granted to key employees. These awards vest over three years.

Supplemental cash allowance awards of CHF 114 million were granted, predominantly to employees with the corporate title of Vice President and below to maintain a market competitive level of total compensation. These cash allowances will vest and are scheduled to be paid during 2023.

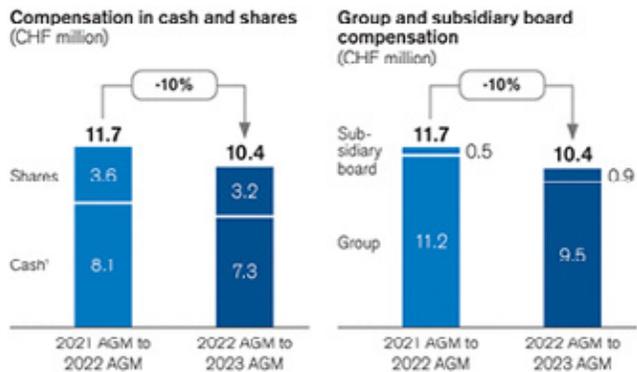
Equity award in the event of CS First Boston initial public offering

In order to incentivize and retain the leadership of CS First Boston, a group of senior leaders is expected to be provided with an equity award to participate in the value of CS First Boston in the event of an IPO. The award is contingent on a successful IPO, and would result in employees being awarded restricted share units in CS First Boston post-IPO. These awards would vest three years post-IPO and be subject to a further holding requirement. A pool for these awards has been determined and is expected to represent up to a maximum of 20% of the shares in CS First Boston for selected existing senior leaders and future senior hires. Any awards granted will be determined by the Group on an entirely discretionary and individualized basis. The maximum value for any employee participating in the plan is capped. Full details of these awards will be provided in the IPO prospectus, if applicable.

Board of Directors compensation

Compensation outcomes for 2022

Board of Directors compensation



Figures above may contain rounding differences.
1 Includes pension and other benefits for the period from the 2021 AGM to the 2022 AGM and from the 2022 AGM to the 2023 AGM.

For the period from the 2022 AGM to the 2023 AGM, aggregate compensation to the Board of CHF 10.4 million consisted of CHF 9.5 million related to Group Board memberships and CHF 0.9 million of fees paid to certain Board members for subsidiary board memberships. This compares with the amount of CHF 13.0 million approved prospectively Board by shareholders at the 2022 AGM. The total Board compensation is 10% lower than the prior period, driven by the waiver of the Chairman's chair fee.

While the base Board fee of CHF 250,000 remained consistent with prior years, there were several changes to the Board committee and other fee amounts for the 2022 AGM to 2023 AGM period. These changes consist of the introduction of an annual fee for the Vice Chair and Lead Independent Director, as well as Board committee membership fees for the new Digital Transformation and Technology Committee and the Sustainability Advisory Committee (previously only a chair fee was paid). For an overview of the Board membership fees for the 2022 AGM to 2023 AGM period, refer to the "Compensation framework, policy and governance" section of this report.

For the 2023 AGM to 2024 AGM period, the base Board and committee membership fees are expected to remain unchanged, with the exception of the Governance and Nominations Committee. Due to the increased number of meetings and active role of the Governance and Nominations Committee in overseeing aspects of the Group's transformation, the Board has approved an increase the membership fee for the Governance and Nominations committee from CHF 50,000 to CHF 100,000.

- Refer to IV – Corporate Governance – Board of Directors for further information on the number of meetings and activities.

Compensation of the Chairman

The Chairman's total compensation for the 2022 AGM to 2023 AGM period consisted of a base fee of CHF 3.0 million payable in cash. Given the poor financial performance in 2022 and challenging situation for the firm at the beginning of the three-year transformation, the Chairman proposed to voluntarily waive his chair fee of CHF 1.5 million for the 2022 AGM to 2023 AGM period, and this proposal was accepted by the Board. Following a benchmarking analysis of board chair pay at leading Swiss companies, the Chairman's total compensation will be adjusted from CHF 4.5 million to CHF 3.8 million starting from the 2023 AGM to 2024 AGM period. To enhance alignment with shareholders, the share portion of the Chairman's fees will be increased from the current 33% to 50%, such that his total compensation will be payable 50% in cash (base fee) and 50% in shares (chair fee), generally blocked for a period of four years. Furthermore, a new minimum shareholding requirement of 500,000 shares has been introduced for the Chairman, in line with the minimum shareholding requirement applicable to Executive Board members. The role of the Chairman is a full-time appointment, and he may also receive benefits from, and make contributions to, the Group pension fund in line with local market practice for the Group. The total compensation paid to the Chairman reflects his full-time status and active role in shaping the Group's strategy, governing the Group's affairs, engaging, and maintaining a close working relationship with the CEO and senior management, and providing supervision, counsel and support, where appropriate. The Chairman coordinates the Board's activities, works with the committee chairs to coordinate the tasks of the committees, and ensures that Board members are provided with sufficient information to perform their duties. The Chairman drives the Board agenda on key topics such as the strategic development of the Group, corporate culture, succession planning and the structure and organization of the Group. He chairs the Board, the Governance and Nominations Committee and the shareholders' meetings. He takes an active role in representing the Group to regulators and supervisors, key shareholders, proxy advisers, investors, government officials and other external stakeholders.

Compensation of the Vice Chair and Lead Independent Director

The Vice Chair and Lead Independent Director received a fee of CHF 125,000 for this role for the 2022 AGM to 2023 AGM period. This fee is payable 50% in cash and 50% in Group shares, generally blocked for a period of four years. The Vice Chair and Lead Independent Director leads the annual Board assessment of the Chairman, chairs Board meetings in the event the Chairman is not able to for any reason, interviews potential new Board member candidates, and may meet with investors or other external stakeholders independently from the Chairman.

Compensation of the committee chairs

Committee chair fees are paid for the Audit Committee, the Compensation Committee, the Risk Committee, the Conduct and Financial Crime Control Committee, the Digital Transformation and Technology Committee and the Sustainability Advisory Committee. These fees are fixed in advance and are not linked to the Group's financial performance. In addition to the greater time commitment required to prepare and lead the committee work, the chair fees reflect the engagement of the committee chairs throughout the year as required with regulators, shareholders, the business divisions and corporate functions and other stakeholders. Regulatory developments in the banking industry in recent years have put increasing demands on the Risk and Audit Committee Chairs, in particular, increasing the frequency of interaction with the Group's main regulators on internal control, risk, capital and other matters under the supervision of these committees. Similarly, there has been a continued focus of shareholders and regulators on compensation and therefore high levels of engagement between the Compensation Committee Chair and key shareholders and proxy advisers, as well as with regulators. The Compensation Committee held 12 meetings, and the Compensation Committee Chair personally attended 28 separate meetings with key shareholders and proxy advisers during 2022. The Audit Committee Chair fee takes into consideration the greater number of meetings required of the Audit Committee for the review and approval of the quarterly financial results and related filings, the Audit Committee Chair's supervisory role over the Internal Audit function, and the lead role of the Audit Committee Chair for overseeing investigations into whistleblowing and other escalated matters. The Audit Committee held 24 meetings during 2022. The Risk Committee Chair fee reflects the regular interaction required between the Risk Committee Chair and the Group Chief Risk Officer and other senior managers in the risk management function, as well as the oversight role over the Credit Risk Review function, which reports directly to the Risk Committee Chair. The Risk Committee held 13 meetings during 2022, and in addition, the Risk Committee Chair held numerous meetings with regulators and other stakeholders. The Conduct and Financial Crime Control Committee held six meetings during 2022, plus one meeting of the entire committee with FINMA.

- Refer to the table "Meeting attendance – Board and Board committees" in IV – Corporate Governance – Board of Directors for further information.
- Refer to "Governance of credit risk" in III – Treasury, Risk, Balance sheet and Off-balance sheet – Risk management – Risk coverage and management – Credit risk for further information on the Credit Risk Review function.

Compensation of Board members serving on subsidiary boards

Several Board members also serve as non-executive members on the boards of Group subsidiary companies. This practice is consistent with the Group's legal entity governance principles, which aim to foster a close alignment of the Group's governance practices and those of its significant subsidiary companies.

- Refer to the "Governance of Group subsidiaries" and "Biographies of the Board members" in IV – Corporate Governance – Board of Directors for further information.

With the exception of the Chairman, Board members may receive separate fees paid in cash for serving on subsidiary boards, in addition to their Board fees. These fees are approved by the respective subsidiary boards and are subject to ratification by the Board. All subsidiary board fees are included in the total amount of compensation of the members of the Board proposed for approval by shareholders at every AGM. The Chairman does not receive separate fees for board memberships in other Group companies, as these memberships are included as part of the Chairman's compensation.

Board members appointed to serve on subsidiary boards receive a flat subsidiary board membership fee of CHF 100,000 (or higher amounts if a Board member serves as the chair of the subsidiary board or a committee). This amount is generally less than that received by other non-executive subsidiary board members, given that Board members are already familiar with the Group's entities and activities. Serving on a subsidiary board is nevertheless a significant additional commitment for these Board members, reflected, for example, in the number of subsidiary board meetings held throughout the year as shown in the following table.

Number of subsidiary board meetings

Subsidiary	Board ¹	Committee ²	Total
Credit Suisse Bank (Europe), S.A. ³	9	15	24
Credit Suisse (Schweiz) AG	23	16	39
Credit Suisse International (CSI) / Credit Suisse Securities (Europe) Ltd. (CSSEL)	24	20	44
Credit Suisse Holdings (USA), Inc. ³	70	14	84

¹ Includes ad hoc meetings and calls.

² Includes meetings of the respective subsidiary board's audit and risk committees.

³ Board and committee meetings held jointly with Credit Suisse (USA) Inc. and Credit Suisse Securities (USA) LLC.

Board compensation from the 2022 AGM to the 2023 AGM (audited)

	Group							Base board fee	Committee fee	Chair fee	Pension and other benefits	Total	Of which awarded in Group shares ¹	Subsidiary board fee ²	Total, including subsidiary boards ³	
	GNC	AC	CC	CF CCC	RC	DTTC	SAC									
CHF																
Axel Lehmann, Chairman ⁴	C						3,000,000	—	—	190,819	3,190,819	—	—	3,190,819		
Mirko Bianchi ⁵	M	C	M	M			250,000	184,091	400,000	—	834,091	417,046	—	834,091		
Iris Bohnet			M			C	250,000	100,000	75,000	—	425,000	212,500	—	425,000		
Clare Brady		M	C			M	250,000	175,000	150,000	—	575,000	287,500	—	575,000		
Christian Gellerstad ⁶	M		C	M	M		250,000	165,000	425,000	—	840,000	420,000	100,000	940,000		
Keyu Jin				M	M		250,000	140,000	—	—	390,000	195,000	—	390,000		
Michael Klein ⁵			M			M	136,364	68,182	—	—	204,546	102,273	—	204,546		
Shan Li			M	M			250,000	200,000	—	—	450,000	225,000	—	450,000		
Seraina Macia		M			M		250,000	190,000	—	—	440,000	220,000	—	440,000		
Blythe Masters	M				C		250,000	50,000	150,000	—	450,000	225,000	277,478	727,478		
Richard Meddings	M	M		C			250,000	200,000	400,000	—	850,000	425,000	167,406	1,017,406		
Amanda Norton ⁵			M	M			204,545	163,636	—	—	368,181	184,091	99,500	467,681		
Ana Paula Pessoa		M	M				250,000	225,000	—	—	475,000	237,500	300,000	775,000		
Total							5,840,909	1,860,909	1,600,000	190,819	9,492,637	3,150,909	944,384	10,437,021		

GNC = Governance and Nominations Committee; AC = Audit Committee; CC = Compensation Committee; CFCCC = Conduct and Financial Crime Control Committee; RC = Risk Committee; DTTC = Digital Transformation and Technology Committee; SAC = Sustainability Advisory Committee; C = Chair; M = Member. All figures stated are based on gross amounts, i.e. before any applicable mandatory tax or social security contributions.

- As of December 31, 2022, one-half of the Board member fees to be awarded in Group shares have been delivered to Board members. The applicable Group share price was CHF 3.97. The remaining shares will be delivered to Board members the day after the first quarter of 2023 earnings announcement in April 2023, and the share price for this second share delivery will be determined at that time. Group shares are subject to a four-year blocking period. The Compensation Committee may approve exceptions to the blocking period under certain circumstances.
- The following Board members are currently serving on the boards of several of the Group's most significant subsidiaries: Christian Gellerstad, board member of Credit Suisse (Schweiz) AG (annual fee of CHF 100,000), Blythe Masters, board member and chair of Credit Suisse Holdings (USA), Inc. ("all in" annual fee of USD 300,000), Richard Meddings, board member and vice-chair of Credit Suisse International and Credit Suisse Securities (Europe), Limited (annual fee of GBP 150,000), Amanda Norton, board member and risk committee chair of Credit Suisse Holdings (USA), Inc., effective September 19, 2022 (annual fees of USD 200,000, pro rated from September 19, 2022) and Ana Paula Pessoa, board member and chair of Credit Suisse Bank (Europe), S.A. (annual fee of CHF 150,000) and chair of the Brazil Advisory Board (annual fee of CHF 150,000).
- At the 2022 AGM, shareholders approved a maximum amount of total compensation to be awarded to Board members until the 2023 AGM of CHF 13 million. For the total compensation awarded to members of the Board, the Group will make estimated payments of CHF 0.6 million for the 2022 / 2023 Board period to cover the mandatory employer social security contributions as required under the social security laws applicable to the individual Board members based on their domicile and employment status. These contributions do not form part of the Board members' compensation.
- The Chair fee of the Chairman is set at CHF 1.5 million to be awarded as 100% Group shares. For the 2022 to 2023 AGM period, the Chairman proposed to voluntarily waived his Chair fee of CHF 1.5 million and this proposal was accepted by the Board. The total compensation of the Chairman included estimated benefits for the period from the 2022 AGM to the 2023 AGM of CHF 190,819, including pension and health insurance benefits.
- Mirko Bianchi joined the GNC effective February 1, 2023 and Amanda Norton joined the board effective July 1, 2022; their compensation was pro-rated to reflect this. Michael Klein's compensation was pro-rated to reflect his departure from the Board effective October 27, 2022.
- The aggregate amount of CHF 425,000 for Christian Gellerstad consisted of his Compensation Committee Chair fee of CHF 300,000 and his Vice-Chairman and Lead Independent Director fee of CHF 125,000.

Board compensation from the 2021 AGM to the 2022 AGM (audited)

	Group							Base board fee	Committee fee	Chair fee	Pension and other benefits	Total	Of which awarded in Group shares ¹	Subsidiary board fee ²	Total, including subsidiary boards ³	
	GNC	AC	CC	CF CCC	RC	DTTC	SAC									
CHF																
Axel Lehmann, Chairman ⁴	C				C (a.i.)		928,767	85,457	511,781	54,776	1,580,781	549,304	—	1,580,781		
António Horta-Osório, former Chairman ⁵							2,250,000	0	1,125,000	162,806	3,537,806	0	—	3,537,806		
Iris Bohnet			M			C	250,000	100,000	75,000	—	425,000	212,500	—	425,000		
Clare Brady		M		M			250,000	225,000	—	—	475,000	237,500	36,712	511,712		
Juan Colombas		M	M		M		145,205	204,167	—	—	349,372	174,686	50,000	399,372		
Christian Gellerstad	M		M	C			250,000	150,000	150,000	—	550,000	275,000	100,000	650,000		
Michael Klein			M				250,000	100,000	—	—	350,000	175,000	—	350,000		
Shan Li					M		250,000	100,000	—	—	350,000	175,000	—	350,000		
Seraina Macia		M					250,000	150,000	—	—	400,000	200,000	—	400,000		
Blythe Masters ⁶			M			C	250,000	166,667	50,000	—	466,667	233,333	91,450	558,117		
Richard Meddings ⁷	M	C		M	M		250,000	175,000	600,000	—	1,025,000	512,500	84,258	1,109,258		
Kai S. Nargolwala	M		C	M	M		250,000	225,000	300,000	—	775,000	387,500	—	775,000		
Ana Paula Pessoa			M		M		250,000	225,000	—	—	475,000	237,500	137,500	612,500		
Severin Schwan	M				M		250,000	150,000	—	—	400,000	200,000	—	400,000		
Total							6,073,973	2,056,290	2,811,781	217,582	11,159,626	3,569,823	499,920	11,659,546		

GNC = Governance and Nominations Committee; AC = Audit Committee; CC = Compensation Committee; CFCCC = Conduct and Financial Crime Control Committee; RC = Risk Committee; DTTC = Digital Transformation and Technology Committee; SAC = Sustainability Advisory Committee; C = Chair; M = Member. All figures stated are based on gross amounts, i.e. before any applicable mandatory tax or social security contributions.

- As of December 31, 2021, one-half of the Board member fees to be awarded in Group shares have been delivered to Board members. The applicable Group share price was CHF 9.35. The remaining shares will be delivered to Board members at or around the date of the 2022 AGM, and the share price for this second share delivery will be determined at that time. Group shares are subject to a four-year blocking period.
- Subsidiary board fees were awarded for the following subsidiary and advisory board roles: i) Ms. Brady served from August 19, 2021 until December 2021 as non-executive board member of the UK subsidiaries Credit Suisse International and Credit Suisse Securities (Europe) Limited and receives annual fees of CHF 100,000 for this role; ii) as of January 1, 2022, Mr. Meddings assumed the chair of the UK subsidiaries Credit Suisse International and Credit Suisse Securities (Europe) Limited, subject to regulatory approval, and received an annual chair fee of GBP 250,000 on a pro-rated basis until March 10, 2022, at which time he stepped down as chair of the UK subsidiary, but remains on the board in the role of Vice-Chair, with an annual fee of GBP 150,000, payable on a pro-rated basis from March 10, 2022 to the 2022 AGM; iii) Mr. Colombas was appointed as non-executive chair of the Credit Suisse Bank (Europe), S.A. effective January 2022, subject to regulatory approval, and receives annual fees of CHF 150,000 for this role; iv) Mr. Gellerstad serves as non-executive board member of the Credit Suisse (Schweiz) AG and receives annual fees of CHF 100,000 for this role; v) Ms. Masters serves as non-executive chair of the Credit Suisse Holdings (USA), Inc. (CSH USA), effective January 2022, and receives annual fees of USD 300,000 for this role; vi) Ms. Pessoa served from June 2021 until December 2021 as non-executive chair of Credit Suisse Bank (Europe) S.A. and as chair of the Credit Suisse Brazil Advisory Board effective January 2022, and receives annual fees of CHF 150,000 for each of these roles. All amounts have been pro-rated to reflect the time the respective Board member served on the subsidiary board.
- At the 2021 AGM, shareholders approved a maximum amount of total compensation to be awarded to Board members until the 2022 AGM of CHF 12 million. For the total compensation awarded to members of the Board, the Group will make estimated payments of CHF 0.6 million for the 2021 / 2022 Board period to cover the mandatory employer social security contributions as required under the social security laws applicable to the individual Board members based on their domicile and employment status. These contributions do not form part of the Board members' compensation.

- 4 The Chair fee of the Chairman is set at CHF 1.5 million to be awarded as 100% Group shares. In the case of Mr. Lehmann, this amount had been pro-rated from January 16, 2022 until the 2022 AGM. The total compensation of the Chairman includes benefits for the period from January 16, 2022 to the 2022 AGM of CHF 54,776, including pension and health insurance benefits. Mr. Lehmann furthermore received pro-rated amounts for his Risk Committee membership (October 1-31, 2021), Risk Committee Chair (November 1, 2021 – January 16, 2022), Audit Committee membership (October 1, 2021 – January 16, 2022), Conduct and Financial Crime Control Committee membership (October 1, 2021 – January 16, 2022) and Governance and Nominations Committee membership (November 1, 2021 – January 16, 2022). Upon becoming Chairman, Mr. Lehmann did not receive a separate fee for chairing the Governance and Nominations Committee or serving as the ad interim Risk Committee Chair until the AGM.
- 5 Mr. Horta-Osório served as Chairman and Board member from May 1, 2021 until January 16, 2022. As per terms of his resignation agreement, Mr. Horta-Osório remained at Credit Suisse until January 31, 2022 to ensure a smooth handover to his successor. He received his Chair fee (pro-rated from May 1, 2021 until January 31, 2022) fully in cash.
- 6 Since January 1, 2022, Ms. Masters served as Chair of the new Digital Transformation and Technology Committee and received annual fees of CHF 150,000 for this role or CHF 50,000 for the period from January 1, 2022 to the 2022 AGM.
- 7 In addition to his Audit Committee Chair fee of CHF 400,000, Mr. Meddings received CHF 200,000 or 50% of the annual Risk Committee Chair fee for taking on the role of the Risk Committee Chair on an ad interim basis for the six month period from May 1, 2021 through October 31, 2021. During this period, Mr. Meddings did not receive the regular Risk Committee membership fee. For the period between November 1, 2021 and April 29, 2022, Mr. Meddings received CHF 50,000 or 50% of the regular Risk Committee membership fee.

Executive Board**Former Executive Board members (audited)**

For 2022, no compensation payments were made to former Executive Board members who left Credit Suisse, which was also the case for 2021. Further, no payments were made to former Executive Board members pursuant to non-compete arrangements.

Utilization of Executive Board compensation approved at the 2022 AGM

At the 2022 AGM, shareholders approved a maximum aggregate amount of fixed compensation to be paid to members of the Executive Board for the period from the 2022 AGM to the 2023 AGM of CHF 34.0 million. Of this amount, 3.0 million was anticipated for two potential new roles on the Executive Board. Fixed compensation includes base salaries, role-based allowances, dividend equivalents, pension and other benefits as well as replacement awards granted to new Executive Board members during this period. In line with the AoA, if new members join the Executive Board or members of the Executive Board are promoted during the period for which compensation has already been approved by shareholders, a further 30% of the aggregate amounts already approved may be used for the compensation of such members, which amounted to CHF 10.2 million in addition to the approved CHF 34.0 million amount.

in CHF million

Maximum aggregate fixed compensation approved for the 2022 AGM to 2023 AGM period	34.0
Utilization of approved amount:	
Base salaries, pension and other benefits	26.2
Part of replacement award for new joiner to Executive Board	6.1
Total utilized amount	32.3
Remaining unutilized amount (originally designated for potential new Executive Board role)	1.7
30% supplementary amount for new Executive Board members joining after the 2022 AGM	10.2
Utilization of supplementary amount:	
D. Joshi	1.2
M. Diethelm	1.8
E. Low	1.7
N. Patel	0.9
Total base salaries, pension and other benefits for new joiners	5.6
Part of replacement award to D. Joshi	0.9
Total supplementary funding utilized	6.5
Remaining unutilized amount	3.7
Total fixed compensation amount paid to Executive Board members	38.8

At the 2022 AGM, shareholders also approved an aggregate amount of CHF 12.1 million for share-based replacement awards for new Executive Board members who joined the Executive Board in 2022. This amount was used for such awards granted or to be granted to the new Executive Board members who joined in 2022.

2020 Long-term incentive awards (LTI awards) (2020-2022 performance period)

As disclosed in the 2019 Compensation Report, the performance of the 2020 LTI awards is based on RoTE, adjusted tangible book value per share (TBVPS) and RTSR each weighted equally and measured over the three-year period from the beginning of 2020 until the end of 2022. The 2020 LTI awards had an initial aggregate maximum opportunity of CHF 53.75 million approved at the 2020 AGM, and the number of shares granted was calculated by dividing the maximum opportunity by the Group share price at the time of grant. The share price utilized was based on the same methodology used for share-based awards granted to Group employees. At the end of the 2020-2022 performance period, performance had fallen short of the threshold levels for each metric, resulting in zero vesting. As an exception, for the former CFO who was classified as a UK PRA MRT and therefore had 40% of his LTI based on a non-financial assessment. As a result, Mr. Mathers' 2020 LTI was assessed at 7% of his maximum opportunity based on the share price at the end of 2022.

Cash settlement of share awards

The Executive Board members are permitted to elect, subject to minimum shareholding requirements, at a predefined date in advance of settlement, to receive their vested share-based awards in the form of shares, cash or 50% in the form of shares and 50% in cash, in each case based on the Group share price at the time of settlement. An election to receive cash is subject to reversal if at the time of settlement, the Group share price is less than 75% of the share price at the time of election. The timing and pricing of settlement will be the same as under the previous award plan and the plans of those below the Executive Board level.

Contract lengths, termination and change in control provisions

All members of the Executive Board have employment contracts with the Group that are valid until terminated. The standard notice period for termination of employment by either the Group or the respective Executive Board member is six months. Executive Board members may be subject to a non-compete period of up to 12 months and may be compensated for this period by mutual agreement. In the event of termination, there are no contractual provisions that allow for the payment of severance awards to Executive Board members beyond the regular compensation awarded during the notice period. Pre-defined conditions for all employees, including Executive Board members, apply for the payment of outstanding deferred compensation awards, depending on whether the termination of employment was voluntary, involuntary, by mutual agreement or as the result of a change in control. In case of a termination for cause, any deferred compensation and outstanding awards will be forfeited. There are no other contracts, agreements, or arrangements with the members of the Executive Board that provide for other types of payments or benefits in connection with termination of employment that are not generally available to other employees of the Group.

In the case of a change in control, the treatment of outstanding awards for all employees, including Executive Board members, will be determined by the Board upon recommendation of the Compensation Committee with the aim of maximizing shareholder value, subject to circumstances and prevailing market conditions. There are no provisions in the employment contracts of Executive Board members or any other pre-determined arrangements that require the payment of any type of extraordinary benefits, including special severance awards or transaction premia, in the case of a change in control.

Other outstanding awards

As of December 31, 2022, the outstanding cash-based deferred compensation awards granted to certain Executive Board members in prior years comprised contingent capital awards, deferred cash awards and deferred short-term incentive cash awards (STI cash awards). The cumulative value of such cash-based awards

at year-end was CHF 5 million. These amounts include the cash value of dividend equivalents related to unvested share awards at their respective grant dates and at December 31, 2022.

Minimum shareholding requirements

For 2022, the shareholding requirements were increased to provide greater alignment with shareholder interests. Given that the majority of the Executive Board members joined the Executive Board during 2022, only two of the eleven members fulfilled the minimum shareholding requirements as of December 31, 2022. This requirement is measured against the number of shares owned plus the number of unvested shares. The CEO and other Executive Board members are not permitted to sell shares until they have met the minimum shareholding requirements, except as necessary to fulfill taxation obligations on the respective shares awarded.

Executive Board holdings and values of deferred share-based awards by individual

end of	Number of owned shares ¹	Number of unvested awards ²	Number of owned shares and unvested awards	Value (CHF) of unvested awards at grant date ³	Value (CHF) of unvested awards at year end ⁴
2022					
Ulrich Körner	340,055	1,564	341,619	12,008	4,323
Markus Diethelm	—	—	—	—	—
Francesco De Ferrari	—	250,550	250,550	2,009,376	692,520
Christine Graeff	—	37,424	37,424	288,013	103,440
Joanne Hannaford	105,247	385,863	491,110	3,177,695	1,066,525
André Helfenstein	208,718	415,737	624,455	4,191,339	189,536
Dixit Joshi	—	—	—	—	—
Edwin Low	283,051	636,136	919,187	5,892,589	1,758,280
Francesca McDonagh	—	—	—	—	—
Nita Patel	6,569	89,202	95,771	739,646	246,554
David Wildermuth	83,541	309,905	393,446	2,451,675	856,577
Total	1,027,181	2,126,381	3,153,562	18,762,343	4,917,756
2021					
Thomas P. Gottstein	343,933	865,241	1,209,174	10,346,761	5,044,803
Romeo Cerutti	419,333	339,027	758,360	4,074,902	2,033,172
André Helfenstein	89,962	516,222	606,184	5,574,001	3,215,381
Lydie Hudson	—	243,816	243,816	2,670,588	1,383,393
Ulrich Körner	246,487	—	246,487	—	—
Rafael Lopez Lorenzo	99,591	127,566	227,157	1,519,990	1,131,766
David R. Mathers	163,403	992,083	1,155,486	10,869,369	6,974,651
Christian Meissner	247	—	247	—	—
Joachim Oechslein	213,577	272,122	485,699	3,506,175	2,414,266
Antoinette Poschung	158,585	123,557	282,142	1,355,032	706,324
Helman Sitohang	471,033	805,946	1,276,979	9,665,696	4,811,141
James B. Walker	221,384	396,582	617,966	4,314,624	2,582,473
Philipp Wehle	76,739	549,634	626,373	6,208,945	3,511,812
Total	2,504,274	5,231,796	7,736,070	60,106,082	33,809,182

1 Includes shares that were initially granted as deferred compensation and have vested.

2 For 2022, includes unvested shares originating from LTI awards based on performance payout achieved at the end of the applicable three year performance period. For 2021, includes unvested shares originating from LTI opportunities calculated on the basis of maximum opportunity for awards that have not reached the end of their three-year performance period, given that the actual achievement level and associated number of unvested shares cannot be determined until the end of the performance period. For LTI awards that have reached the end of their three-year performance period, the number of unvested shares reflects the actual number of shares earned based on achievement of the performance target levels.

3 Determined based on the number of unvested awards multiplied by the share price at grant.

- 4 For 2022, includes the value of unvested LTI opportunities based on performance payout achieved at the end of the applicable three year performance period. For 2021, includes the value of unvested LTI opportunities. For LTI awards that have reached the end of their three-year performance period, the value is based on the actual number of shares eligible to vest. For LTI opportunities that have not reached the end of their three-year performance period, this is determined based on the number of shares at fair value at the time of grant, multiplied by the share price at the end of the year.

Executive Board outstanding deferred compensation awards

in / end		Total outstanding end of 2021	Granted in 2022 ¹	Paid out in 2022	Ex post explicit adjustments	Ex post implicit adjustments	Total outstanding end of 2022	% of which exposed to ex post explicit adjustments
Executive Board (CHF million) ²								
Contingent Capital Awards	Cash-based	3	0	(1)	—	(1)	2	100%
Cash awards ³	Cash-based	—	5	(2)	—	0	3	100%
Share awards ⁴	Share-based	3	11	(3)	—	(6)	4	100%
Performance share awards	Share-based	4	1	(2)	0	(2)	1	100%
Total		10	17	(7)	0	(9)	10	—

¹ Included awards granted to Executive Board members with respect to their previous roles prior to joining the Executive Board.

² Included Executive Board members who were in office on December 31, 2022.

³ Included the deferred cash portion of STI awards.

⁴ Included the outstanding 2020 LTI opportunity.

Executive Board loans (audited)

The majority of loans outstanding to Executive Board members are mortgages or loans against securities. Such loans are made on the same terms available to employees under the Group's employee benefit plans. Pursuant to the AoA, each Executive Board member may be granted individual credit facilities or loans up to a maximum of CHF 20 million. As of December 31, 2022, 2021 and 2020, outstanding loans to Executive Board members amounted to CHF 6 million, CHF 18 million and CHF 13 million, respectively. The number of individuals with outstanding loans at the beginning and the end of 2022 was eight and four, respectively, and the highest loan outstanding was CHF 4 million to Mr. Körner.

All mortgage loans to Executive Board members are granted either with variable or fixed interest rates over a certain period. Typically, mortgages are granted for periods of up to ten years. Interest rates applied are based on refinancing costs plus a margin, and interest rates and other terms are consistent with those applicable to other employees. Loans against securities are granted at interest rates and on terms applicable to such loans granted to other employees. The same credit approval and risk assessment procedures apply to Executive Board members as for other employees. Unless otherwise noted, all loans to Executive Board members were made in the ordinary course of business and substantially on the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other persons and in consideration of the terms which apply to all Group employees. These loans did not involve more than the normal risk of collectability or present other unfavorable features.

- Refer to "Banking relationships with Board and Executive Board members and related party transactions" in IV – Corporate Governance – Additional information for further information.

Group

Compensation awarded to Material Risk Takers and Controllers

Total compensation awarded to MRTCs for 2022 was CHF 1,514 million (excluding the Transformation Award), of which 21% was in the form of variable incentive compensation, with 59% of the variable incentive compensation subject to malus.

Compensation awarded to Material Risk Takers and Controllers

For	2022			2021		
	Non-deferred	Deferred	Total	Non-deferred	Deferred	Total
Fixed compensation (CHF million)						
Total fixed compensation ¹	673	130	803	622	112	734
Variable incentive compensation (CHF million)						
Cash awards	118 ²	23	141	282 ²	29	311
Share awards	14	167	181	41	58	99
Performance share awards	—	—	—	—	99	99
Contingent Capital Awards	—	—	—	—	37	37
Total variable incentive compensation	132	190	322	323	223	546
Other variable compensation (CHF million)						
Cash severance	3	—	3	10	—	10
Retention awards	51	81	132	7	172	179
Strategic Delivery Plan	—	229	229	—	—	—
Other ³	7 ⁴	18	25	3 ⁴	15	18
Total other variable compensation	61	328	389	20	187	207
Total compensation (CHF million)						
Total compensation	866	648	1,514	965	522	1,487
of which guaranteed bonuses	1	2	3	2	2	4

Excluding Executive Board members who were in office on December 31, 2022 or 2021, respectively. Of the total compensation awarded to MRTCs for 2022 and 2021, 43% and 35%, respectively, was deferred. Of the total variable incentive compensation awarded to MRTCs for 2022 and 2021, 59% and 41%, respectively, was deferred.

- 1 The number of MRTCs receiving fixed compensation for 2022 and 2021 was 1,577 and 1,480, respectively.
- 2 Included upfront cash awards.
- 3 Included replacement awards to compensate employees for the equivalent fair value of deferred awards cancelled by previous employers as well as sign-on payments.
- 4 For 2022 and 2021, there were no sign-on payments paid to MRTCs.

Impact of share-based compensation on shareholders' equity

In general, the income statement expense recognition of share-based awards on a pre-tax basis has a neutral impact on shareholders' equity because the reduction to shareholders' equity from the expense recognition is offset by the obligation to deliver shares, which is recognized as an increase to equity by a corresponding amount. Shareholders' equity includes, as additional paid-in capital, the tax benefits associated with the expensing and subsequent settlement of share-based awards.

Since 2017, the Group has been fulfilling its share delivery obligations by purchasing shares in the market. The Group maintained this practice during 2022. Following the 2021 Share Repurchase Program, the Board has decided not to cancel the 25,087,000 shares repurchased under the share buyback program by way of a capital reduction, and the intention is to use these shares exclusively for servicing employee share award plans. Otherwise, the Group will continue covering future share delivery obligations through market purchases.

Share-based awards outstanding

At the end of 2022, there were 253.9 million share-based awards outstanding, including 147.4 million share awards, 44.6 million performance share awards and 61.9 million SDP share awards.

- Refer to "Note 30 – Employee deferred compensation" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Subsequent activity

In early 2023, the Group granted approximately 108.9 million new share awards with respect to performance in 2022.

In the first half of 2023, the Group plans to settle 63.8 million deferred awards from prior years, including 47.4 million share awards and 16.5 million performance share awards. The Group will continue to meet this delivery obligation through market purchases.

- Refer to "Share purchases" in III – Treasury, Risk, Balance sheet and Off-balance sheet – Capital management for more information.

Potential negative adjustments of legacy performance share awards

Performance share awards will no longer be used as a form of deferred compensation award for the 2022 performance year onwards.

Outstanding performance share awards granted for prior years are subject to downward adjustments in the event of a divisional loss or a negative ROE of the Group, whichever results in a larger adjustment. The Compensation Committee has the discretion to exclude extraordinary items from the calculation of divisional losses or Group ROE as it deems appropriate. If the Group reports a negative ROE, the number of outstanding awards is reduced by the same percentage as the negative ROE. The amount of negative adjustment applied in the event of divisional loss is shown in the table below.

Negative adjustment if division incurs a loss

Division loss before taxes (in CHF billion)	Negative adjustment on award balance (in %)
1.00	15
2.00	30
3.00	45
4.00	60
5.00	75
6.00	90
6.67	100

- Refer to the “Compensation outcomes for 2022” in Group Compensation for further information.

Competitive benchmarking

The assessment of the economic and competitive environment is an important element of the compensation process as the Group strives for market-informed, competitive compensation levels. Internal expertise and the services of compensation consulting firms are used to benchmark compensation levels against relevant peers, taking into account geographical variations. The Compensation Committee is provided with regular reports from an independent compensation adviser on industry and market trends, including competitor performance and pay trends. The core group considered for the purposes of Group peer benchmarking are Bank of America, Barclays, Citigroup, Deutsche Bank, Goldman Sachs, JPMorgan Chase, Morgan Stanley and UBS. Specific benchmarking may include other peers, depending on the business area or geographic location, as appropriate.

The defined RTSR peer group used in the assessment of Executive Board performance includes Banco Santander, Bank of America, Barclays, BBVA, BNP Paribas, Citigroup, Deutsche Bank, Goldman Sachs, HSBC, ING Group, Intesa Sanpaolo, JPMorgan Chase, Julius Bär, Morgan Stanley, Nordea Bank, NatWest Group, Société Générale, Standard Chartered and UBS, companies chosen based on similarities in geographical coverage and scope of businesses.

For consideration of European and local practices, the Compensation Committee also references a cross-industry peer group of multinational companies headquartered in Europe selected on the basis of comparability to Credit Suisse in size, scale, global scope of operations and economic influence. In addition to the companies already listed previously and those included as part of the RTSR peer group, peers considered for Executive Board compensation include: ABN AMRO Bank, CaixaBank, Commerzbank, Credit Agricole, Danske Bank, KBC Group, Lloyds Banking Group, Skandinaviska Enskilda Banken AB and UniCredit.

Focus on risk and control

Risk and control considerations are an integral part of the performance assessment and compensation processes. This ensures that the Group’s approach to compensation includes a focus on risk and internal control matters and discourages excessive risk taking. Senior management from the Group’s corporate functions, including Risk, Compliance, General Counsel, People, Internal Audit and Product Control, provide the Compensation Committee with comprehensive feedback on regulatory, audit, disciplinary and risk-related issues, or trends across the Group, relevant to the assessment of the Group’s risk and control culture. Divisions are assessed against risk and conduct measures for the year, and the consolidated findings are presented to the Compensation Committee and the CEO. Based on these assessments, the Compensation Committee considers and approves adjustments to the divisional pool levels.

As approved by the Compensation Committee, Conduct Boards (CBs) have been established at the Group level, for the control functions overall, as well as within each business division. The CBs review disciplinary events and decide on disciplinary sanctions proposed by the recommendation teams, which include representatives from the control functions. As regards to the financial consequences of a disciplinary sanction, the Compensation Committee approves the application of malus for all Managing Directors reporting to an Executive Board member. The Group Conduct Board (GCB) meets regularly to ensure that sanctions applied are in line with the Group’s risk appetite, market practice and regulatory requirements.

Implemented in the fourth quarter of 2021, the Significant Events process is a formal and systematic event-driven approach for categorizing the most serious risk matters to ensure that a review of all employees in proximity is undertaken, including those accountable for the Significant Event. This process is incremental to the existing performance management and disciplinary processes, which continue to exist in parallel.

A Significant Event is defined as an event that results from an insufficient control, control failure or absence of control, or misconduct by employees, and the event meets one of the following criteria:

- Had a significant financial impact (direct loss, provision or restatement) on CS Group of > CHF 50 million;

- Had a significant impact on the reputation of CS Group, or any of its subsidiaries, or is very likely to have such an impact when information becomes public; or
- Had a significant negative impact on the relationship of the Group, or any of its subsidiaries, with regulators (e.g., subjected to a significant investigation or other regulatory action) or with other key stakeholders (e.g., shareholders and other investors, as well as on outcomes for clients of Credit Suisse).

When an incident meets the Group-wide Significant Event criteria, the GCB approves the event for investigation under the Significant Events process. This is then confirmed by the Board Risk Committee. Group Reward (within the People function) have authority to suspend variable compensation payments to employees identified as being proximate to the event, pending completion of the investigation. The GCB reviews and approves proximity findings and compensation adjustment for all employees below

Executive Board level. The Compensation Committee or Advisory Remuneration Committee, as applicable, have oversight over the GCB's decisions. Adjustments may be made to variable compensation (related to the current performance year) or to prior year variable compensation by applying malus/clawback provisions.

Malus and clawback provisions

All deferred compensation awards granted contain malus provisions that enable the Group to reduce or cancel the awards prior to settlement if the participant engages in certain defined conduct. All variable incentive compensation granted to UK PRA MRTs and employees regulated by the Bank of Italy are subject to clawback. Other EU-regulated employees are also subject to clawback provisions as required by applicable legal or regulatory requirements. Malus and clawback provisions were enforced during 2022.

	<u>Application</u>	<u>Scope/Criteria</u>
Malus	<ul style="list-style-type: none"> • Reduction or cancellation of outstanding deferred awards prior to settlement • Applies to all outstanding deferred awards granted 	<ul style="list-style-type: none"> • Impermissible disclosure or misuse of Group information, or willful engagement in conduct that is materially detrimental to an interest of the Group; • Conduct that evidences serious misbehavior or serious error; • Conduct that causes, could cause or could have caused the Group or any division or region to suffer a significant downturn in financial performance or regulatory capital base; • Significant failure of risk management; or • Conduct that is reviewed by the Group's disciplinary conduct, ethics or similar committee
Clawback	<ul style="list-style-type: none"> • Claim back of deferred and non-deferred variable compensation after settlement • For UK PRA MRTs, clawback may be applied up to seven years from grant date (or such longer period as may be required) • The Group will apply clawback provisions to the extent permitted under local laws, as required 	<p>For UK PRA MRTs, clawback may be applied in certain situations, including:</p> <ul style="list-style-type: none"> • Conduct which resulted in significant losses to the Group; • Failure to meet appropriate standards of fitness and propriety; • Reasonable evidence of misconduct or misbehavior or a material or serious error; • The Group or relevant business unit suffers a material failure of risk management; • A regulator mandates a significant increase in regulatory capital for the Group or any division or region; or • The individual has contributed to any regulatory sanctions imposed on the Group or division or region <p>Similar clawback provisions apply for employees regulated by the Bank of Italy and other EU-regulated employees who are subject to a clawback requirement.</p>

Covered Employees (including Material Risk Takers and Controllers)

Covered employees are subject to a heightened level of scrutiny over the alignment of their compensation with performance and risk considerations.

Employee categories

- Covered Employees**
- MRTCs
 - US-based revenue producers in the Investment Bank division

Compensation process

Focus on risk assessment

- Covered employees and their managers are required to define

- MRTCs**
- Members of the Executive Board
 - Employees who report directly to a member of the Executive Board
 - Employees, individually or as part of a group, with the ability to put material amounts of the Group’s capital at risk
 - Top 150 paid employees across the Group based on total compensation
 - Any employee identified as taking or controlling material risks on behalf of the Group, as prescribed by EU / UK regulators
 - Senior relationship managers in the Wealth Management-related businesses
 - Other individuals whose roles have been identified as having a potential impact on the market, reputational and operational risk of the Group
- role-specific risk objectives and to incorporate risk considerations in their performance evaluations and when setting variable incentive compensation
- Types of risks considered vary by role (e.g., reputational, credit, market, operational, liquidity, legal and compliance)
 - Both realized and potential risk outcomes are assessed

Board

Board shareholdings

The following table discloses the shareholdings of the Board members, their immediate family, and companies in which they have a controlling interest. As of December 31, 2022, 2021 and 2020, there were no Board members with outstanding options.

Board shareholdings by individual

end of	2022	2021
December 31 (shares) ¹		
Axel Lehmann	568,066	108,220
Mirko Bianchi ²	21,676	—
Iris Bohnet	201,502	115,182
Clare Brady	57,985	12,695
Christian Gellerstad	247,267	138,884
Keyu Jin ²	24,559	—
Shan Li	117,064	49,062
Seraina Macia	190,728	105,035
Blythe Masters	57,918	12,027
Richard Meddings	156,811	58,403
Amanda Norton ²	18,217	—
Ana Paula Pessoa	118,570	79,404
Total	<u>1,780,363</u>	<u>678,912</u> ³

- 1 Includes Group shares that are subject to a blocking period of up to four years; includes shareholdings of immediate family members.
- 2 Mirko Bianchi, Keyu Jin and Amanda Norton were newly elected at the 2022 AGM.
- 3 Excluded 335,902 shares held by António Horta-Osório, who stepped down as Chairman as of January 16, 2022; 71,465 shares held by Michael Klein, who stepped down as of October 27, 2022; and 422,140 shares held by Kai S. Nargolwala and 199,154 shares held by Severin Schwan, who both did not stand for re-election at the 2022 AGM.

Board loans

The majority of loans outstanding to members of the Board are mortgages or loans against securities. Such loans are made to Board members on the same terms available to third-party clients. Pursuant to the AoA, each member of the Board may be granted individual credit facilities or loans up to a maximum of CHF 20 million at market conditions. As of December 31, 2022, 2021 and 2020, outstanding loans to Board members amounted to CHF 4 million, CHF 7 million and CHF 4 million, respectively.

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Board members with loans do not benefit from employee conditions, but are subject to conditions applied to clients with a comparable credit standing. Unless otherwise noted, all loans to Board members are made in the ordinary course of business and substantially on the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other persons. Such loans do not involve more than the normal risk of collectability or present other unfavorable features. In addition to the loans listed below, the Group or any of its banking subsidiaries may enter into financing and other banking agreements with companies in which current Board members have a significant influence as defined by the SEC. Examples include holding executive and/or board level roles in these companies. Unless otherwise noted, loans extended by the Group to such companies are also made in the ordinary course of business and at prevailing market conditions. As of December 31, 2022, 2021 and 2020, there was no loan exposure to such related party companies that was not made in the ordinary course of business and at prevailing market conditions.

- Refer to “Banking relationships with Board and Executive Board members and related party transactions” in IV – Corporate Governance – Additional information for further information.

Board loans by individual (audited)

end of	2022	2021
December 31 (CHF)		
Christian Gellerstad	3,418,350	3,456,750
Seraina Macia	928,000	936,000
Total	<u>4,346,350</u>	<u>4,392,750</u> ¹

Includes loans to immediate family members and companies, in which the respective Board member has an ownership stake of 50% or higher.

- 1 Excluded a loan of CHF 2,477,554 held by António Horta-Osório, who stepped down from the Board as of January 16, 2022.

Former members of the Board (audited)

One former member of the Board is eligible to receive office infrastructure and secretarial support. These services are based on existing resources. No other additional fees, severance payments or other forms of compensation were paid to former members of the Board or related parties during 2022 and 2021.

Report of the Statutory Auditor

[Report of the statutory auditor intentionally omitted solely for purposes of the filing of Group and Bank's Annual Report on Form 20-F filed with the US Securities and Exchange Commission]

[Report of the statutory auditor intentionally omitted solely for purposes of the filing of Group and Bank's Annual Report on Form 20-F filed with the US Securities and Exchange Commission]

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Controls and procedures

Evaluation of disclosure controls and procedures

The Group has evaluated the effectiveness of its disclosure controls and procedures as of the end of the period covered by this report under the supervision and with the participation of management, including the Group Chief Executive Officer (CEO) and Chief Financial Officer (CFO), pursuant to Rule 13(a)-15(b) under the Securities Exchange Act of 1934 (the Exchange Act). The Group identified certain material weaknesses in internal control over financial reporting as of December 31, 2021 and, consequently, December 31, 2022, which are described below. As a result of these material weaknesses, the Group CEO and CFO have concluded that, as of December 31, 2022, the Group's disclosure controls and procedures were not effective.

Notwithstanding the existence of these material weaknesses in internal control over financial reporting, the Group confirms that its consolidated financial statements in this Annual Report fairly present, in all material respects, the Group's consolidated financial condition as of December 31, 2022 and 2021, and its consolidated results of operations and cash flows for the years ended December 31, 2022, 2021 and 2020, in conformity with US GAAP, as reflected in PricewaterhouseCoopers AG's (PwC) report on those financial statements.

Management's report on internal control over financial reporting

The management of the Group is responsible for establishing and maintaining adequate internal control over financial reporting. The Group's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with US GAAP. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management has made an evaluation and assessment of the Group's internal control over financial reporting as of December 31, 2022 using the criteria issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in "Internal Control – Integrated Framework (2013)". Based upon its review and evaluation, management, including the Group CEO and CFO, has concluded that, as of December 31, 2022, the Group's internal control over financial reporting was not effective because of the material weaknesses described below. For the same reasons, management has also reassessed its conclusion as to the effectiveness of internal control over

financial reporting as of December 31, 2021, and concluded that internal control over financial reporting was also not effective as of such date.

Management did not design and maintain an effective risk assessment process to identify and analyze the risk of material misstatements in its financial statements and did not design and maintain effective monitoring activities relating to (i) providing sufficient management oversight over the internal control evaluation process to support the company's internal control objectives; (ii) involving appropriate and sufficient management resources to support the risk assessment and monitoring objectives; and (iii) assessing and communicating the severity of deficiencies in a timely manner to those parties responsible for taking corrective action. These material weaknesses contributed to an additional material weakness, as management did not design and maintain effective controls over the classification and presentation of the consolidated statement of cash flows. Specifically, certain control activities over the completeness and the classification and presentation of non-cash items in the consolidated statement of cash flows were not performed on a timely basis or at the appropriate level of precision. This material weakness resulted in the revisions contained in our previously issued consolidated financial statements for the three years ended December 31, 2021 as disclosed in the 2021 Annual Report. Additionally, each of these material weaknesses could result in further misstatements of account balances or disclosures that would result in a material misstatement to the annual consolidated financial statements that would not be prevented or detected.

PwC, the independent registered public accounting firm that audited the financial statements for the year ended December 31, 2022, included in this annual report, has issued an adverse opinion on the effectiveness of the Group's internal control over financial reporting as of December 31, 2022.

Remediation plans

Management and the Group Audit Committee have worked continuously in recent years to improve the control environment surrounding financial reporting with increased investment and additional resources. Management is committed to maintaining a strong internal control environment and implementing measures designed to help ensure that the material weaknesses are remediated as soon as possible. Management is developing a remediation plan to address the material weaknesses referred to above, including strengthening the risk and control frameworks, and which will build on the significant attention that management has devoted to controls to date. Additionally, we will implement robust controls to ensure that all non-cash items are classified appropriately within the consolidated statement of cash flows.

Changes in internal control over financial reporting

Other than as described above, there were no changes in the Group's internal control over financial reporting during the period covered by this report that have materially affected, or are reasonably likely to materially affect, the Group's internal control over financial reporting.

Report of the Independent Registered Public Accounting Firm

PricewaterhouseCoopers AG, Zurich, Switzerland, PCAOB ID 1358



Report of Independent Registered Public Accounting Firm

To the Board of Directors and shareholders of Credit Suisse Group AG

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Credit Suisse Group AG and its subsidiaries (the "Group") as of December 31, 2022 and 2021, and the related consolidated statements of operations, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Group's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Group as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Group did not maintain, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework (2013) issued by the COSO because material weaknesses in internal control over financial reporting existed as of that date related to (i) the effectiveness of the risk assessment process to identify and analyze the risk of material misstatements in the Group's financial statements, (ii) the effectiveness of monitoring activities relating to providing sufficient management oversight over the internal control evaluation process to support the Group's internal control objectives, involving appropriate and sufficient management resources to support the risk assessment and monitoring objectives and assessing and communicating the severity of deficiencies in a timely manner to those parties responsible for taking corrective action and (iii) the effectiveness of controls over the completeness and the classification and presentation of non-cash items in the consolidated statements of cash flows.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. The material weaknesses referred to above are described in the accompanying Management's report on internal control over financial reporting. We considered these material weaknesses in determining the nature, timing, and extent of audit tests applied in our audit of the 2022 consolidated financial statements, and our opinion regarding the effectiveness of the Group's internal control over financial reporting does not affect our opinion on those consolidated financial statements.

The Group's management and we previously concluded that the Group maintained effective internal control over

financial reporting as of December 31, 2021. However, the Group's management and we have subsequently determined that material weaknesses in internal control over financial reporting existed and accordingly concluded that internal control over financial reporting was not effective as of such date.

Change in Accounting Principle

As discussed in Note 2 and Note 20 to the consolidated financial statements, the Group changed the manner in which it accounts for credit losses on certain financial instruments in 2020.

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Basis for Opinions

The Group's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in management's report referred to above. Our responsibility is to express opinions on the Group's consolidated financial statements and on the Group's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Group in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Fair Value of Certain Level 3 Financial Instruments

As described in Note 36 to the consolidated financial statements, the Group carried CHF 9,312 million of its assets and CHF 9,496 million of its liabilities measured at fair value on a recurring basis that are categorized as level 3 of the fair value hierarchy as of December 31, 2022. For these financial instruments, for which no prices are available and which have significant unobservable inputs, the determination of fair value may require the use of either industry standard models or internally developed proprietary models, as well as subjective assessment and judgment, depending on liquidity, pricing assumptions, the current economic and competitive environment and the risks affecting the specific instrument. The significant unobservable inputs used by management to determine the fair value of certain of these level



3 financial instruments included (i) correlation, (ii) market implied life expectancy, in years, (iii) UK mortality, (iv) price, (v) volatility, and (vi) credit spread.

The principal considerations for our determination that performing procedures relating to the fair value of certain level 3 financial instruments is a critical audit matter are (i) the significant judgment by management in determining the fair value of these financial instruments, which in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence related to the fair value of these financial instruments, and (ii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the fair value of financial instruments, including controls over the Group's models, inputs, and data. These procedures also included, among others, for a sample of financial instruments, the involvement of professionals with specialized skill and knowledge to assist in (i) developing an independent estimate of fair value or (ii) testing management's process to determine the fair value of these financial instruments. Developing an independent estimate involved (i) testing the completeness and accuracy of data provided by management, (ii) evaluating and utilizing management's significant unobservable inputs or developing independent significant unobservable inputs, and (iii) comparing management's estimate to the independently developed estimate of fair value. Testing management's process to determine the fair value involved (i) evaluating the reasonableness of management's significant unobservable inputs, (ii) evaluating the appropriateness of the techniques used, and (iii) testing the completeness and accuracy of data used by management to determine the fair value of these instruments.

Allowance for Credit Losses on Certain Collectively Evaluated Corporate and Institutional Loans

As described in Notes 1 and 20 to the consolidated financial statements, the Group's allowance for credit losses on collectively evaluated corporate and institutional loans was CHF 432 million on corporate and institutional loans held at amortized cost of CHF 107,433 million as of December 31, 2022. The credit loss amounts were based on a forward-looking, lifetime current expected credit losses ("CECL") model by incorporating reasonable and supportable forecasts of future economic conditions available at the reporting date. Expected credit losses were not solely derived from projections of macroeconomic factors. Model overlays based on expert judgment were also applied, considering historical loss experience and industry and counterparty reviews, and were primarily impacting certain corporate and institutional loans portfolios.

The principal considerations for our determination that performing procedures relating to the allowance for credit losses on certain collectively evaluated corporate and institutional loans is a critical audit matter are (i) the significant judgment by management in evaluating model results and assessing the need for overlays to the CECL model output, (ii) the significant judgment and estimation by management in determining an appropriate methodology for the overlays applied, which both in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and in evaluating audit evidence obtained relating to the model results and the appropriateness of overlays to the CECL model output, and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's expected credit loss process, including controls over the Group's models, data, and overlays. The procedures also included, among others, testing management's process for estimating expected credit losses, which included (i) evaluating the appropriateness of the model methodologies used to determine the allowance for credit losses, (ii) testing the completeness and accuracy of data used in the estimate, and (iii) for a sample, evaluating the reasonableness of management's model overlays. The procedures included the use of professionals with specialized skill and knowledge to assist in evaluating the appropriateness of model methodologies and assist in evaluating the audit evidence.

Litigation provisions

As described in Note 40 to the consolidated financial statements, the Group is involved in a number of judicial, regulatory and arbitration proceedings concerning matters arising in connection with the conduct of its businesses. The Group's aggregate litigation provisions include estimates of losses, additional losses or ranges of loss for proceedings for which such losses are probable and can be reasonably estimated. As of December 31, 2022, the Group has recorded litigation provisions of CHF 1,172 million. Management's estimate of the aggregate range of reasonably possible losses that are not covered by existing provisions for which management believes an estimate is possible is zero to CHF 1.2 billion.

The principal considerations for our determination that performing procedures relating to the litigation provisions is a critical audit matter are the significant judgment by management when assessing the likelihood of a loss being incurred and when determining whether a reasonable estimate of the loss or ranges of loss for each claim can be made, which in



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turn led to a high degree of auditor judgment, subjectivity, and effort in evaluating management's assessment of the litigation provisions and related disclosures.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's estimation of the litigation provisions, including controls over determining whether a loss is probable and whether the amount of loss can be reasonably estimated, as well as controls over the related financial statement disclosures. These procedures also included, among others, obtaining and evaluating the letters of audit inquiry with internal and external legal counsel, targeted inquiries with external counsel, evaluating the reasonableness of management's assessment regarding whether an unfavorable outcome is reasonably possible or probable and reasonably estimable, and evaluating the sufficiency of the Group's litigation provisions and related disclosures.

Goodwill Impairment Assessment of the Asset Management and Wealth Management Reporting Units

As described in Note 21 to the consolidated financial statements, the Group's goodwill balance was CHF 2,903 million as of December 31, 2022, which is allocated to the Group's reporting units, and for which CHF 1,111 million was allocated to the Asset Management reporting unit and CHF 1,304 million was allocated to the Wealth Management reporting unit. Goodwill is reviewed for impairment on an annual basis as of December 31 and at any other time that events or circumstances indicate that the carrying value of goodwill may not be recoverable. In estimating the fair value of its reporting units, management applied a combination of the market approach and the income approach. In determining the estimated fair value, management relied upon its latest five-year financial plan which included significant management assumptions and estimates based on their view of current and future economic conditions and significant assumptions regarding the discount rate under the income approach as well as price to projected earnings and price to book value multiples ("multiples") under the market approach.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment of the Asset Management and Wealth Management reporting units is a critical audit matter are (i) the significant judgment by management when developing the fair value measurement of the Asset Management and Wealth Management reporting units, (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions, specifically the five year financial plan, discount rate and multiples, and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls over the valuation of the Asset Management and Wealth Management reporting units. These procedures also included, among others (i) testing management's process for developing the fair value estimate of the Asset Management and Wealth Management reporting units and (ii) developing an independent estimate of fair value for these reporting units. Testing management's process involved (i) evaluating the reasonableness of significant assumptions used by management, specifically the five-year financial plan, discount rate and multiples, (ii) evaluating the appropriateness of the methods used, and (iii) testing the completeness and accuracy of underlying data used in management's model. Developing an independent estimate involved using alternative financial plans, as well as independent discount rate and multiples, and comparing management's estimate to the independently developed estimate. Professionals with specialized skill and knowledge were used to assist in the evaluation of the management's estimate and development of an independent estimate.

/s/ PricewaterhouseCoopers AG

Zurich, March 14, 2023

We have served as the Group's auditor since 2020.



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Consolidated financial statements

Consolidated statements of operations

in	Note	2022	2021	2020
Consolidated statements of operations (CHF million)				
Interest and dividend income	5	12,251	9,658	11,261
Interest expense	5	(6,910)	(3,847)	(5,313)
Net interest income	5	5,341	5,811	5,948
Commissions and fees	6	8,853	13,165	11,853
Trading revenues	7	(451)	2,431	3,295
Other revenues	8	1,178	1,289	1,293
Net revenues		14,921	22,696	22,389
Provision for credit losses	9	16	4,205	1,096
Compensation and benefits	10	8,813	8,963	9,890
General and administrative expenses	11	7,782	7,159	6,523
Commission expenses		1,012	1,243	1,256
Goodwill impairment	21	23	1,623	0
Restructuring expenses	12	533	103	157
Total other operating expenses		9,350	10,128	7,936
Total operating expenses		18,163	19,091	17,826
Income/(loss) before taxes		(3,258)	(600)	3,467
Income tax expense	29	4,048	1,026	801
Net income/(loss)		(7,306)	(1,626)	2,666
Net income/(loss) attributable to noncontrolling interests		(13)	24	(3)
Net income/(loss) attributable to shareholders		(7,293)	(1,650)	2,669
Earnings/(loss) per share (CHF)				
Basic earnings/(loss) per share	13	(2.55)	(0.63)	1.02
Diluted earnings/(loss) per share	13	(2.55)	(0.63)	0.99

Consolidated statements of comprehensive income

in	2022	2021	2020
Comprehensive income/(loss) (CHF million)			
Net income/(loss)	(7,306)	(1,626)	2,666
Gains/(losses) on cash flow hedges	(1,222)	(301)	178
Foreign currency translation	(287)	795	(3,065)
Unrealized gains/(losses) on securities	(26)	0	(17)
Actuarial gains/(losses)	64	1,022	(37)
Net prior service credit/(cost)	(153)	(91)	(148)
Gains/(losses) on liabilities related to credit risk	6,091	405	202
Other comprehensive income/(loss), net of tax	4,467	1,830	(2,887)
Comprehensive income/(loss)	(2,839)	204	(221)
Comprehensive income/(loss) attributable to noncontrolling interests	(22)	30	(9)
Comprehensive income/(loss) attributable to shareholders	(2,817)	174	(212)

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated balance sheets

end of	Note	2022	2021
Assets (CHF million)			
Cash and due from banks		68,478	164,818
of which reported at fair value		198	308
of which reported from consolidated VIEs		229	108
Interest-bearing deposits with banks		455	1,323
of which reported at fair value		14	0
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	15	58,798	103,906
of which reported at fair value		40,793	68,623
Securities received as collateral, at fair value		2,978	15,017
of which encumbered		2,220	8,455
Trading assets, at fair value	16	65,461	111,141
of which encumbered		21,874	30,092
of which reported from consolidated VIEs		2,588	1,822
Investment securities	17	1,718	1,005
of which reported at fair value		797	1,005
of which encumbered		1,248	516
Other investments	18	5,518	5,826
of which reported at fair value		3,730	4,094
of which reported from consolidated VIEs		781	1,015
Net loans	19	264,165	291,686
of which reported at fair value		7,358	10,243
of which encumbered		103	42
of which reported from consolidated VIEs		3,410	1,400
allowance for credit losses		(1,363)	(1,297)
Goodwill	21	2,903	2,917
Other intangible assets	22	458	276
of which reported at fair value		403	224
Brokerage receivables		13,818	16,687
allowance for credit losses		(4,081)	(4,186)
Other assets	23	46,608	41,231
of which reported at fair value		8,946	9,184
of which reported from consolidated VIEs		4,605	1,496
of which loans held-for-sale (amortized cost base)		8,378	588
allowance for credit losses – other assets held at amortized cost		(40)	(30)
Total assets		531,358	755,833

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated balance sheets (continued)

end of	Note	2022	2021
Liabilities and equity (CHF million)			
Due to banks	25	11,905	18,965
of which reported at fair value		490	477
Customer deposits	25	233,235	392,819
of which reported at fair value		2,464	3,700
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	15	20,280	35,274
of which reported at fair value		14,042	13,213
Obligation to return securities received as collateral, at fair value		2,978	15,017
Trading liabilities, at fair value	16	18,338	27,535
of which reported from consolidated VIEs		1,063	8
Short-term borrowings		12,414	19,393
of which reported at fair value		6,783	10,690
of which reported from consolidated VIEs		3,137	4,352
Long-term debt	26	157,235	166,896
of which reported at fair value		58,721	68,722
of which reported from consolidated VIEs		2,096	1,391
Brokerage payables		11,442	13,060
Other liabilities	23	18,200	22,644
of which reported at fair value		2,300	2,592
of which reported from consolidated VIEs		190	231
Total liabilities		486,027	711,603
Common shares		160	106
Additional paid-in capital		38,615	34,938
Retained earnings		23,632	31,064
Treasury shares, at cost		(428)	(828)
Accumulated other comprehensive income/(loss)	27	(16,850)	(21,326)
Total shareholders' equity		45,129	43,954
Noncontrolling interests		202	276
Total equity		45,331	44,230
Total liabilities and equity		531,358	755,833

- Refer to “Note 34 – Guarantees and commitments” and “Note 40 – Litigation” for information on commitments and contingencies.

end of	Note	2022	2021
Additional share information			
Par value (CHF)		0.04	0.04
Authorized shares ¹		4,577,158,062	3,100,747,720
Common shares issued	27	4,002,158,062	2,650,747,720
Treasury shares	27	(60,907,981)	(81,063,211)
Shares outstanding	27	3,941,250,081	2,569,684,509

¹ Includes issued shares and unissued shares (conditional, conversion and authorized capital).

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of changes in equity

	Attributable to shareholders							Total equity
	Common shares	Additional paid-in capital	Retained earnings	Treasury shares, at cost	AOCI	Total shareholders' equity	Non-controlling interests	
2022 (CHF million)								
Balance at beginning of period	106	34,938	31,064	(828)	(21,326)	43,954	276	44,230
Purchase of subsidiary shares from non-controlling interests, not changing ownership ^{1, 2}	—	—	—	—	—	—	(64)	(64)
Sale of subsidiary shares to noncontrolling interests, not changing ownership ²	—	—	—	—	—	—	79	79
Net income/(loss)	—	—	(7,293)	—	—	(7,293)	(13)	(7,306)
Total other comprehensive income/(loss), net of tax	—	—	—	—	4,476	4,476	(9)	4,467
Issuance of common shares	54	3,960	—	—	—	4,014	—	4,014
Sale/(repurchase) of treasury shares	—	(70)	—	(159)	—	(229)	—	(229)
Share-based compensation, net of tax	—	55	—	559	—	614	—	614
Financial instruments indexed to own shares	—	3	—	—	—	3	—	3
Dividends paid	—	(140) ³	(139)	—	—	(279)	(1)	(280)
Changes in scope of consolidation, net	—	—	—	—	—	—	(66)	(66)
Other	—	(131)	—	—	—	(131)	—	(131)
Balance at end of period	160	38,615	23,632	(428)	(16,850)	45,129	202	45,331
2021 (CHF million)								
Balance at beginning of period	98	33,323	32,834	(428)	(23,150)	42,677	264	42,941
Purchase of subsidiary shares from non-controlling interests, not changing ownership	—	—	—	—	—	—	(42)	(42)
Sale of subsidiary shares to noncontrolling interests, not changing ownership	—	—	—	—	—	—	27	27
Net income/(loss)	—	—	(1,650)	—	—	(1,650)	24	(1,626)
Total other comprehensive income/(loss), net of tax	—	—	—	—	1,824	1,824	6	1,830
Issuance of common shares	8	1,748	—	(1,756)	—	—	—	0
Conversion of mandatory convertible notes	—	—	—	1,756	—	1,756	—	1,756
Sale/(repurchase) of treasury shares	—	(22)	—	(1,035)	—	(1,057)	—	(1,057)
Share-based compensation, net of tax	—	54	—	635	—	689	—	689
Dividends paid	—	(136)	(120)	—	—	(256)	(1)	(257)
Changes in scope of consolidation, net	—	—	—	—	—	—	(2)	(2)
Other	—	(29)	—	—	—	(29)	—	(29)
Balance at end of period	106	34,938	31,064	(828)	(21,326)	43,954	276	44,230

¹ Distributions to owners in funds include the return of original capital invested and any related dividends.

² Transactions with and without ownership changes related to fund activity are all displayed under “not changing ownership”.

³ Paid out of capital contribution reserves.

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of changes in equity (continued)

	Attributable to shareholders							Non-controlling interests	Total equity
	Common shares	Additional paid-in capital	Retained earnings	Treasury shares, at cost	AOCI	Total shareholders' equity			
2020 (CHF million)									
Balance at beginning of period	102	34,661	30,634	(1,484)	(20,269)	43,644	70	43,714	
Purchase of subsidiary shares from non-controlling interests, not changing ownership	—	—	—	—	—	—	(20)	(20)	
Sale of subsidiary shares to noncontrolling interests, not changing ownership	—	—	—	—	—	—	19	19	
Net income/(loss)	—	—	2,669	—	—	2,669	(3)	2,666	
Cumulative effect of accounting changes, net of tax	—	—	(132)	—	—	(132)	—	(132)	
Total other comprehensive income/(loss), net of tax	—	—	—	—	(2,881)	(2,881)	(6)	(2,887)	
Cancellation of repurchased shares	(4)	(1,321)	—	1,325	—	—	—	—	
Sale/(repurchase) of treasury shares	—	(35)	—	(854)	—	(889)	—	(889)	
Share-based compensation, net of tax	—	377	—	585	—	962	—	962	
Dividends paid	—	(379)	(337)	—	—	(716)	—	(716)	
Changes in scope of consolidation	—	—	—	—	—	—	198	198	
Other	—	20	—	—	—	20	6	26	
Balance at end of period	98	33,323	32,834	(428)	(23,150)	42,677	264	42,941	

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of cash flows

in	2022	2021	2020
Operating activities (CHF million)			
Net income/(loss)	(7,306)	(1,626)	2,666
Adjustments to reconcile net income/(loss) to net cash provided by/(used in) operating activities (CHF million)			
Impairment, depreciation and amortization	1,737	3,041	1,356
Provision for credit losses	16	4,205	1,096
Deferred tax provision/(benefit)	3,810	225	434
Share-based compensation	779	922	1,152
Valuation adjustments relating to long-term debt	(15,050)	1,424	2,364
Share of net income/(loss) from equity method investments	(103)	(182)	(121)
Trading assets and liabilities, net	35,984	27,054	(8,090)
(Increase)/decrease in other assets	1,356	14,623	(7,829)
Increase/(decrease) in other liabilities	(7,380)	(12,537)	819
Other, net	(23)	(211)	122
Total adjustments	21,126	38,564	(8,697)
Net cash provided by/(used in) operating activities	13,820	36,938	(6,031)
Investing activities (CHF million)			
(Increase)/decrease in interest-bearing deposits with banks	885	(7)	(519)
(Increase)/decrease in central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	38,854	(8,895)	19,289
Purchase of investment securities	(1,230)	(630)	(402)
Proceeds from sale of investment securities	44	0	629
Maturities of investment securities	229	184	184
Investments in subsidiaries and other investments	(286)	(2,049)	(210)
Proceeds from sale of other investments	510	616	678
(Increase)/decrease in loans	14,634	(3,710)	(8,029)
Proceeds from sales of loans	2,754	5,371	3,860
Capital expenditures for premises and equipment and other intangible assets	(1,438)	(1,419)	(1,188)
Proceeds from sale of premises and equipment and other intangible assets	0	3	45
Other, net	586	454	113
Net cash provided by/(used in) investing activities	55,542	(10,082)	14,450

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of cash flows (continued)

in	2022	2021	2020
Financing activities (CHF million)			
Increase/(decrease) in due to banks and customer deposits	(166,585)	1,217	24,618
Increase/(decrease) in short-term borrowings	(7,587)	(337)	(5,246)
Increase/(decrease) in central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(7,487)	(2,996)	(1,534)
Issuances of long-term debt	64,153	56,552	58,009
Repayments of long-term debt	(49,644)	(52,965)	(42,768)
Issuances of common shares	3,924	0	0
Sale/(repurchase) of treasury shares	(229)	(1,057)	(889)
Dividends paid	(280)	(257)	(716)
Other, net	(148)	(204)	7
Net cash provided by/(used in) financing activities	(163,883)	(47)	31,481
Effect of exchange rate changes on cash and due from banks (CHF million)			
Effect of exchange rate changes on cash and due from banks	(1,819)	(1,103)	(2,667)
Net increase/(decrease) in cash and due from banks (CHF million)			
Net increase/(decrease) in cash and due from banks	(96,340)	25,706	37,233
Cash and due from banks at beginning of period ¹	164,818	139,112	101,879
Cash and due from banks at end of period ¹	68,478	164,818	139,112

¹ Includes restricted cash.

Supplemental cash flow information

in	2022	2021	2020
Cash paid for income taxes and interest (CHF million)			
Cash paid for income taxes	678	815	757
Cash paid for interest	7,835	5,703	8,376

- Refer to “Note 3 – Business developments, significant shareholders and subsequent events”, “Note 20 – Financial instruments measured at amortized cost and credit losses”, “Note 24 – Leases” and “Note 35 – Transfers of financial assets and variable interest entities” for information on non-cash transactions.

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Notes to the consolidated financial statements

1 Summary of significant accounting policies

Overview

The accompanying consolidated financial statements of Credit Suisse Group AG (the Group) are prepared in accordance with accounting principles generally accepted in the US (US GAAP) and are stated in Swiss francs (CHF). The financial year for the Group ends on December 31. Certain reclassifications have been made to the prior year's consolidated financial statements to conform to the current presentation which had no impact on net income/(loss) or total shareholders' equity.

In preparing the consolidated financial statements, management is required to make estimates and assumptions including, but not limited to, the fair value measurements of certain financial assets and liabilities, the allowance for loan losses, the evaluation of variable interest entities (VIEs), the impairment of assets other than loans, recognition of deferred tax assets, tax uncertainties, pension liabilities and various contingencies. These estimates and assumptions affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the dates of the consolidated balance sheets and the reported amounts of revenues and expenses during the reporting period. While management evaluates its estimates and assumptions on an ongoing basis, actual results could differ materially from management's estimates. Market conditions may increase the risk and complexity of the judgments applied in these estimates.

Certain accounting changes

As noted in our 2021 Annual Report, the Group identified an accounting issue that was not material to the prior period financial statements. The Group identified this accounting issue with respect to the net balance sheet treatment relating to the presentation of a limited population of certain securities lending and borrowing activities. As a result, balance sheet and cash flow positions for both assets and liabilities relating to these activities were presented on a gross basis and prior periods were revised in the consolidated financial statements and the related notes.

Beginning with the quarter ended June 30, 2022, the Group has presented these securities lending and borrowing transactions as a single unit of account and as a result these transactions will no longer be presented on a gross basis. The Group did not adjust prior period financial information, which continue to reflect a presentation on a gross basis.

Principles of consolidation

The consolidated financial statements include the financial statements of the Group and its subsidiaries. The Group's subsidiaries are entities in which it holds, directly or indirectly, more than 50% of the voting rights or where it exercises control. The Group consolidates limited partnerships in cases where it is the general partner and the limited partners do not have either substantive kick out rights and/or substantive participating rights or is

a limited partner with substantive rights to kick out the general partner or dissolve the partnership and participate in significant decisions made in the ordinary course of business. The Group also consolidates VIEs if the Group is the primary beneficiary in accordance with Accounting Standards Codification (ASC) Topic 810 – Consolidation. The effects of material intercompany transactions and balances have been eliminated.

Where a Group subsidiary is determined to be an investment company as defined by ASC Topic 946 – Financial Services – Investment Companies, interests in other entities held by this Group subsidiary are not consolidated and are carried at fair value.

Group entities that qualify as broker-dealer entities as defined by ASC Topic 940 – Financial Services – Brokers and Dealers do not consolidate investments in voting interest entities that would otherwise qualify for consolidation when the investment is held on a temporary basis for trading purposes. In addition, subsidiaries that are strategic components of a broker-dealer's operations are consolidated regardless of holding intent.

Foreign currency translation

Transactions denominated in currencies other than the functional currency of the related entity are recorded by remeasuring them in the functional currency of the related entity using the foreign exchange (FX) rate on the date of the transaction. As of the dates of the consolidated balance sheets, monetary assets and liabilities are reported using the year-end spot foreign exchange rates. Foreign exchange rate differences are recorded in the consolidated statements of operations. Non-monetary assets and liabilities are recorded using the historic exchange rate.

For the purpose of consolidation, the assets and liabilities of Group companies with functional currencies other than the Swiss franc are translated into Swiss franc equivalents using year-end spot foreign exchange rates, whereas revenues and expenses are translated at weighted average foreign exchange rates for the period. Translation adjustments arising from consolidation are included in accumulated other comprehensive income/(loss) (AOCI) within total shareholders' equity. Cumulative translation adjustments are released from AOCI and recorded in the consolidated statements of operations when the Group loses control of a consolidated foreign subsidiary.

Fair value measurement and option

The fair value measurement guidance establishes a single authoritative definition of fair value and sets out a framework for measuring fair value. The fair value option creates an alternative measurement treatment for certain financial assets and financial liabilities. The fair value option can be elected at initial recognition of the eligible item or at the date when the Group enters into an agreement which gives rise to an eligible item (e.g., a firm commitment or a written loan commitment). If not elected at

initial recognition, the fair value option can be applied to an item upon certain triggering events that give rise to a new basis of accounting for that item. The application of the fair value option to a financial asset or a financial liability does not change its classification on the balance sheet and the election is irrevocable. Changes in fair value resulting from the election are recorded in trading revenues.

- Refer to “Fair value option” in Note 36 – Financial instruments for further information.

Cash and due from banks

Cash and due from banks consists of currency on hand, demand deposits with banks or other financial institutions and cash equivalents. Cash equivalents are defined as short-term, highly liquid instruments with original maturities of three months or less, which are held for cash management purposes. Restricted cash is any cash or cash equivalent recorded in cash and due from banks subject to restrictions imposed by a governmental or other regulatory agency that require the Group to set aside specified amounts of cash as reserves against transactions and time deposits.

Reverse repurchase and repurchase agreements

Purchases of securities under agreements to resell (reverse repurchase agreements) and securities sold under agreements to repurchase (repurchase agreements) do not constitute economic sales; therefore, they are treated as collateralized financing transactions, which are carried in the consolidated balance sheet at the amount of cash disbursed or received, respectively. Reverse repurchase agreements are recorded as collateralized assets while repurchase agreements are recorded as liabilities. The underlying securities sold continue to be recognized in trading assets or investment securities. The fair value of securities to be repurchased and resold is monitored on a daily basis, and additional collateral is obtained as needed to protect against credit exposure.

Assets and liabilities recorded under these agreements are accounted for on one of two bases, the accrual basis or the fair value basis. Under the accrual basis, interest earned on reverse repurchase agreements and interest incurred on repurchase agreements are reported in interest and dividend income and interest expense, respectively. The Group elects to apply the fair value option to selected agreements pursuant to ASC Topic 825 – Financial Instruments. Under such circumstances, the change in fair value is reported in trading revenues. Accrued interest income and expense are recorded in the same manner as under the accrual method.

Reverse repurchase and repurchase agreements may be netted if they are with the same counterparty, have the same maturity date, settle through the same qualifying clearing institution and are subject to a right of offset allowed by a legally enforceable master netting agreement or a central counterparty’s clearing rules.

Securities lending and borrowing transactions

Securities borrowed and securities loaned that are cash-collateralized are included in the consolidated balance sheet at amounts equal to the cash advanced or received. If securities received as collateral in a securities lending and borrowing transaction may be sold or repledged, they are recorded as securities received as collateral in the consolidated balance sheet and a corresponding liability to return the security is recorded. Securities lending transactions against non-cash collateral in which the Group has the right to resell or repledge the collateral received are recorded at the fair value of the collateral initially received. For securities lending transactions, the Group receives cash or securities collateral in an amount generally in excess of the market value of securities lent. The Group monitors the fair value of securities borrowed and loaned on a daily basis with additional collateral obtained as necessary.

Securities lending and borrowing fees and interest received or paid are recorded in interest and dividend income and interest expense, respectively, on an accrual basis. If the fair value basis of accounting is elected, any resulting change in fair value is reported in trading revenues. Accrued interest income and expense are recorded in the same manner as under the accrual method.

Transfers of financial assets

Transfers of financial assets may involve the sale of these assets to special purpose entities (SPEs), which in turn issue securities to investors. The Group values its beneficial interests in such SPEs at fair value using quoted market prices, if such positions are traded on an active exchange, or financial models that incorporate observable and unobservable inputs, if such positions are not traded on an active exchange.

- Refer to “Note 35 – Transfers of financial assets and variable interest entities” for further information on the Group’s transfer activities.

Trading assets and liabilities

Trading assets and liabilities include debt securities, marketable equity instruments, derivative instruments, certain loans held in broker-dealer entities, commodities and precious metals. Items included in the trading portfolio are carried at fair value. Regular-way security transactions are recorded on a trade-date basis. Unrealized and realized gains and losses on trading positions are recorded in trading revenues.

Derivatives

Freestanding derivative contracts are carried at fair value in the consolidated balance sheets regardless of whether these instruments are held for trading or risk management purposes. Commitments to originate mortgage loans that will be held for sale are considered derivatives for accounting purposes. When derivative features embedded in certain contracts that meet the definition of a derivative are not considered clearly and closely related to the host contract, either the embedded feature is accounted

for separately at fair value or the entire contract, including the embedded feature, is accounted for at fair value. In both cases, changes in fair value are recorded in the consolidated statements of operations. If separated for measurement purposes, the derivative is recorded in the same line item in the consolidated balance sheets as the host contract.

Derivatives classified as trading assets and liabilities include those held for trading purposes and those used for risk management purposes that do not qualify for hedge accounting. Derivatives held for trading purposes arise from proprietary trading activity and from customer-based activity. Realized gains and losses, changes in unrealized gains and losses and interest flows are included in trading revenues. Derivative contracts designated and qualifying as fair value hedges, cash flow hedges or net investment hedges are reported as other assets or other liabilities.

The fair value of exchange-traded derivatives is typically derived from observable market prices and/or observable market parameters. Fair values for over-the-counter (OTC) derivatives are determined on the basis of proprietary models using various input parameters. Derivative contracts are recorded on a net basis per counterparty where a right to offset exists under an enforceable master netting agreement or a central counterparty's clearing rules. Where no such rights exist, fair values are recorded on a gross basis.

Where hedge accounting is applied, the Group formally documents all relationships between hedging instruments and hedged items, including the risk management objectives and strategy for undertaking hedge transactions. At inception of a hedge and on an ongoing basis, the hedge relationship is formally assessed to determine whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items attributable to the hedged risk. The Group discontinues hedge accounting prospectively in the following circumstances:

- (i) the derivative is no longer effective in offsetting changes in the fair value or cash flows of a hedged item (including forecasted transactions);
- (ii) the derivative expires or is sold, terminated or exercised;
- (iii) the derivative is no longer designated as a hedging instrument because it is unlikely that the forecasted transaction will occur; or
- (iv) the designation of the derivative as a hedging instrument is otherwise no longer appropriate.

For derivatives that are designated and qualify as fair value hedges, the carrying values of the underlying hedged items are adjusted to fair value for the risk being hedged. Changes in the fair value of these derivatives are recorded in the same line item of the consolidated statements of operations used to present the changes in the fair value of the hedged item.

When the Group discontinues fair value hedge accounting because it determines that the derivative no longer qualifies as an effective hedge, the derivative will continue to be carried in the consolidated balance sheets at its fair value, and the hedged asset or liability

will no longer be adjusted for changes in fair value attributable to the hedged risk. Interest-related fair value adjustments made to the underlying hedged items will be amortized to the consolidated statements of operations over the remaining life of the hedged item. Any unamortized interest-related fair value adjustment is recorded in the consolidated statements of operations upon sale or extinguishment of the hedged asset or liability, respectively. Any other fair value hedge adjustments remain part of the carrying amount of the hedged asset or liability and are recognized in the consolidated statements of operations upon disposition of the hedged item as part of the gain or loss on disposition.

For hedges of the variability of cash flows from forecasted transactions and floating rate assets or liabilities, the change in the fair value of a designated derivative is recorded in AOCI. These amounts are reclassified into the line item in the consolidated statements of operations in which the hedged item is recorded when the variable cash flow from the hedged item impacts earnings (for example, when periodic settlements on a variable rate asset or liability are recorded in the consolidated statements of operations or when the hedged item is disposed of).

When hedge accounting is discontinued on a cash flow hedge, the net gain or loss will remain in AOCI and be reclassified into the consolidated statements of operations in the same period or periods during which the formerly hedged transaction is reported in the consolidated statements of operations. When the Group discontinues hedge accounting because it is probable that a forecasted transaction will not occur within the specified date or period plus two months, the derivative will continue to be carried in the consolidated balance sheets at its fair value, and gains and losses that were previously recorded in AOCI will be recognized immediately in the consolidated statements of operations.

For hedges of a net investment in a foreign operation, the change in the fair value of the hedging derivative is recorded in AOCI. The Group uses the forward method of determining effectiveness for net investment hedges, which results in the time value portion of a foreign currency forward being reported in AOCI.

Investment securities

Investment securities include debt securities classified as held-to-maturity and debt securities classified as available-for-sale. Regular-way security transactions are recorded on a trade-date basis.

Debt securities where the Group has the positive intent and ability to hold such securities to maturity are classified as such and are carried at amortized cost, net of any unamortized premium or discount. Debt securities classified as held-to-maturity require an assessment of the current expected credit loss (CECL) at the reporting date.

Debt securities classified as available-for-sale are carried at fair value. Unrealized gains and losses, which represent the difference between fair value and amortized cost, are recorded in AOCI. Amounts reported in AOCI are net of income taxes.

Debt securities classified as available-for-sale are impaired if there is a decline in fair value below amortized cost basis. If the Group intends to sell an impaired security or more likely than not will be required to sell such a security before recovering its amortized cost basis, the entire difference between the amortized cost basis and fair value is recognized as a credit loss. However, if the Group does not intend to sell and is not likely to be required to sell, an assessment is made if a decline in fair value of the security is due to credit-related factors or non-credit related factors. Credit-related impairment is recognized in earnings by recording an allowance for credit losses. Any portion of the unrealized loss that relates to non-credit related factors is recognized in AOCI, net of income taxes.

Amortization of premiums or discounts for debt securities is recorded in interest and dividend income using the effective yield method through the maturity date of the security.

Other investments

Other investments include equity method investments, equity securities without a readily determinable fair value, such as hedge funds, private equity securities and certain investments in non-marketable mutual funds for which the Group has neither significant influence nor control over the investee, and real estate held-for-investment.

Equity method investments are investments for which the Group has the ability to significantly influence the operating and financial policies. Significant influence is typically characterized by ownership of 20% to 50% of the voting stock or in-substance common stock of a corporation or 3% to 5% or more of limited partnership interests. Equity method investments are accounted for under the equity method of accounting or the fair value option, which the Group has elected to apply for selected equity method investments. Under the equity method of accounting, the Group's proportionate share of the profit or loss, and any impairment on the investee, if applicable, is reported in other revenues. Under the fair value option, changes in fair value are reported in other revenues.

Equity securities without a readily determinable fair value are carried at fair value, net asset value practical expedient to estimate fair value or at cost less impairment, adjusted for observable price changes (measurement alternative). Memberships in exchanges are reported at cost, less impairment. Equity securities without a readily determinable fair value held by the Group's subsidiaries that are determined to be investment companies as defined by ASC Topic 946 – Financial Services – Investment Companies are carried at fair value, with changes in fair value recorded in other revenues.

Equity method investments and equity securities without a readily determinable fair value held by subsidiaries that are within the scope of ASC Topic 940 – Financial Services – Brokers and Dealers are measured at fair value and reported in trading assets when the intent of the broker-dealer entity is to hold the asset temporarily for trading purposes. Changes in fair value are reported in trading revenues. Equity securities without a readily

determinable fair value include investments in entities that regularly calculate net asset value per share or its equivalent, with changes in fair value recorded in other revenue.

Loans

Loans held at amortized cost

Loans which the Group intends to hold until maturity are carried at outstanding principal balances, net of the following items: unamortized premiums, discounts on purchased loans, deferred loan origination fees and direct loan origination costs on originated loans. Interest income is accrued on the unpaid principal balance and net deferred premiums/discounts and fees/costs are amortized as an adjustment to the loan yield over the term of the related loans.

A loan is classified as non-performing and thus considered credit impaired no later than when the contractual payments of principal and/or interest are more than 90 days past due except for sub-prime residential loans which are classified as non-performing no later than when the contractual payments of principal and/or interest are more than 120 days past due. The additional 30 days ensure that these loans are not incorrectly assessed as non-performing during the time when servicing of them typically is being transferred. However, management may determine that a loan should be classified as non-performing notwithstanding that contractual payments of principal and/or interest are less than 90 days past due or, in the case of subprime residential loans, 120 days past due. In addition, the Group continues to add accrued interest receivable to the loan's balance for collection purposes; however, a credit provision is recorded, resulting in no interest income recognition.

A loan can be further downgraded to non-interest-earning when the collection of interest is considered so doubtful that further accrual of interest is deemed inappropriate.

Generally, non-performing loans and non-interest-earning loans may be restored to performing status only when delinquent principal and interest are brought up to date in accordance with the terms of the loan agreement and when certain performance criteria are met.

Interest collected on non-performing loans and non-interest-earning loans is accounted for using the cash basis or the cost recovery method or a combination of both.

Amortization of deferred fees and premiums and discounts ceases while a loan is deemed to be non-performing or non-interest-earning.

Loans that are modified in a troubled debt restructuring are reported as restructured loans. Generally, a restructured loan would have been considered credit-impaired prior to the restructuring. Loans modified in a troubled debt restructuring are no longer considered credit-impaired in the years following the restructuring if the restructured loan carries an interest rate that is equal to or greater than the rate the Group was willing to accept at the time

of the restructuring for a loan with comparable risk and the loan is not credit-impaired based on the terms specified by the restructuring agreement. For loans that have been restructured in a troubled debt restructuring, the applicable loan accounting depends on the loan classification. Loan restructurings may include the receipt of assets in satisfaction of the loan, the modification of loan terms (e.g., reduction of interest rates, extension of maturity dates at a stated interest rate lower than the current market rate for new loans with similar risk, or reduction in principal amounts and/or accrued interest balances) or a combination of both.

Potential problem loans are credit-impaired loans where contractual payments have been received according to schedule, but where doubt exists as to the collection of future contractual payments. Potential problem loans continue to accrue interest.

- Refer to “Note 19 – Loans” for further information.

Credit losses on financial instruments measured at amortized cost

The credit loss requirements apply to financial assets measured at amortized cost including loans held at amortized cost, net investments in leases as a lessor as well as off-balance sheet credit exposures, such as irrevocable loan commitments, and credit guarantees. The credit loss amounts are based on a forward-looking, lifetime CECL model by incorporating reasonable and supportable forecasts of future economic conditions available at the reporting date. The CECL amounts are estimated over the contractual term of the financial assets taking into account the effect of prepayments. This requires considerable judgment over how changes in macroeconomic factors as well as changes in forward-looking borrower-specific characteristics will affect the CECL amounts.

The Group measures expected credit losses of financial assets on a collective (pool) basis when similar risk characteristics exist. For financial assets that do not share similar risk characteristics, expected credit losses are evaluated on an individual basis. CECL amounts are probability-weighted estimates of potential credit losses based on historical frequency, current trends and conditions as well as forecasted macroeconomic factors, such as gross domestic product, unemployment rates and interest rates.

For financial assets that are performing at the reporting date, the allowance for credit losses is generally measured using a probability of default/loss given default approach under which both probability of default (PD), loss given default (LGD) and exposure at default (EAD) are estimated. For financial assets that are credit-impaired at the reporting date, the Group generally applies a discounted cash flow approach to determine the difference between the gross carrying amount and the present value of estimated future cash flows.

An allowance for credit losses is deducted from the amortized cost basis of the financial asset. Changes in the allowance for credit losses are recorded in the consolidated statement of operations in provision for credit losses or, if related to provisions on past due interest, in net interest income.

For undrawn irrevocable loan commitments, the present value is calculated based on the difference between the contractual cash flows that are due to the Group if the commitment is drawn and the cash flows that the Group expects to receive, in order to estimate the provision for expected credit losses. For credit guarantees, expected credit losses are recognized for the contingency of the credit guarantee. Provisions for off-balance sheet credit exposures are recognized as a provision in other liabilities in the consolidated balance sheets.

Write-off of a financial asset occurs when it is considered certain that there is no possibility of recovering the outstanding principal. If the amount of loss on write-off is greater than the accumulated allowance for credit losses, the difference results in an additional credit loss. The additional credit loss is first recognized as an addition to the allowance; the allowance is then applied against the gross carrying amount. Any repossessed collateral is initially measured at fair value. The subsequent measurement depends on the nature of the collateral. Any uncollectible accrued interest receivable is written off by reversing the related interest income.

Expected recoveries on financial assets previously written off or assessed/planned to be written off have to be reflected in the allowance for credit losses; for this purpose, the amount of expected recoveries cannot exceed the aggregate amounts previously written off or assessed/planned to be written off. Accordingly, expected recoveries from financial assets previously written off may result in an overall negative allowance for credit loss balance.

Prior to January 2020, the allowance for credit losses reflected probable incurred credit losses.

- Refer to “Note 20 – Financial instruments measured at amortized cost and credit losses” for further information.

Loans held-for-sale

Loans which the Group intends to sell in the foreseeable future are considered held-for-sale and are carried at the lower of amortized cost or market value determined on either an individual method basis, or in the aggregate for pools of similar loans if sold or securitized as a pool. Loans held-for-sale are included in other assets. Adjustments to the lower of amortized cost basis or fair value are presented as a valuation allowance and recorded in other revenue.

Purchased loans with credit deterioration

A purchased loan measured at amortized cost is considered a purchased loan with credit deterioration if it has experienced more-than-insignificant deterioration in credit quality since origination. At the date of acquisition, the allowance for credit is added to the purchase price of the loan to establish the initial amortized cost basis. Any difference between the amortized cost and the unpaid principal amount is recognized in interest income using the effective interest method. After the purchase date, the allowance for credit losses is adjusted for subsequent changes in estimates of current expected credit losses.

Loans held at fair value under the fair value option

Loans and loan commitments for which the fair value option is elected are reported at fair value with changes in fair value reported in trading revenues. The application of the fair value option does not change the loan's classification. Loan commitments carried at fair value are recorded in other assets or other liabilities, respectively.

Goodwill and other intangible assets

Goodwill arises on the acquisition of subsidiaries or additional ownership of equity method investments. It is measured as the excess of the fair value of the consideration transferred, the fair value of any noncontrolling interest in the acquiree and the fair value of any previously held equity interest in the acquired subsidiary, over the net of the acquisition-date fair values of the identifiable assets acquired and the liabilities assumed. Goodwill is not amortized. Instead, it is tested for impairment annually, or more frequently if events or changes in circumstances indicate that goodwill may be impaired. Goodwill is allocated to the Group's reporting units for the purposes of the impairment test.

Other intangible assets may be acquired individually or as part of a group of assets assumed in a business combination. Other intangible assets include but are not limited to: patents, licenses, copyrights, trademarks, branch networks, mortgage servicing rights, customer base and deposit relationships. Acquired intangible assets are initially measured at the amount of cash disbursed or the fair value of other assets distributed. Other intangible assets that have a finite useful life are amortized over that period. Other intangible assets acquired after January 1, 2002 that are determined to have an indefinite useful life are not amortized; instead they are tested for impairment annually, or more frequently if events or changes in circumstances indicate that the indefinite intangible asset may be impaired. Mortgage servicing rights are included in non-amortizing other intangible assets and are carried at fair value, with changes in fair value recognized through earnings in the period in which they occur. Mortgage servicing rights represent the right to perform specified mortgage servicing activities on behalf of third parties. Mortgage servicing rights are either purchased from third parties or retained upon sale of acquired or originated loans.

Income taxes

Deferred tax assets and liabilities are recorded for the expected future tax consequences of temporary differences between the carrying amounts of assets and liabilities at the dates of the consolidated balance sheets and their respective tax bases. Deferred tax assets and liabilities are computed using currently enacted tax rates and are recorded in other assets and other liabilities, respectively. Income tax expense or benefit is recorded in income tax expense/(benefit), except to the extent the tax effect relates to transactions recorded directly in total shareholders' equity. Deferred tax assets are reduced by a valuation allowance, if necessary, to the amount that management believes will more likely than not be realized. Deferred tax assets and liabilities are adjusted for the effect of changes in tax laws and rates in the

period in which changes are approved by the relevant authority. Deferred tax assets and liabilities are presented on a net basis for the same tax-paying component within the same tax jurisdiction.

The Group follows the guidance in ASC Topic 740 – Income Taxes, which sets out a consistent framework to determine the appropriate level of tax reserves to maintain for uncertain tax positions. The Group determines whether it is more likely than not that an income tax position will be sustained upon examination based on the technical merits of the position. Sustainable income tax positions are then measured to determine the amount of benefit eligible for recognition in the consolidated financial statements. Each such sustainable income tax position is measured at the largest amount of benefit that is more likely than not to be realized upon ultimate settlement.

Brokerage receivables and brokerage payables

The Group recognizes receivables and payables from transactions in financial instruments purchased from and sold to customers, banks and broker-dealers. The Group is exposed to risk of loss resulting from the inability of counterparties to pay for or deliver financial instruments purchased or sold, in which case the Group would have to sell or purchase, respectively, these financial instruments at prevailing market prices. To the extent an exchange or clearing organization acts as counterparty to a transaction, credit risk is generally considered to be limited. The Group establishes credit limits for each customer and requires them to maintain margin collateral in compliance with applicable regulatory and internal guidelines. In order to conduct trades with an exchange or a third-party bank, the Group is required to maintain a margin. This is usually in the form of cash and deposited in a separate margin account with the exchange or broker. Brokerage receivables are assessed for impairment applying the CECL model. Write-offs of brokerage receivables occur if the outstanding amounts are considered uncollectible.

Premises and equipment

Premises and equipment (including equipment under operating leases where the Group is the lessor), with the exception of land, are carried at cost less accumulated depreciation.

Buildings are depreciated on a straight-line basis over their estimated useful lives, generally 40 to 67 years, and building improvements are depreciated on a straight-line basis over their estimated useful lives, generally not exceeding five to ten years. Land is carried at historical cost and is not depreciated. Leasehold improvements, such as alterations and improvements to rented premises, are depreciated on a straight-line basis over the shorter of the lease term or estimated useful life, which generally does not exceed ten years. Equipment, such as computers, machinery, furnishings, vehicles and other tangible non-financial assets, is depreciated using the straight-line method over its estimated useful lives, generally three to ten years. Certain leasehold improvements and equipment, such as data center power generators, may have estimated useful lives greater than ten years.

The Group capitalizes costs relating to the acquisition, installation and development of software with a measurable economic benefit, but only if such costs are identifiable and can be reliably measured. The Group depreciates capitalized software costs on a straight-line basis over the estimated useful life of the software, generally not exceeding seven years, taking into consideration the effects of obsolescence, technology, competition and other economic factors.

Leases

For lessee arrangements, the Group recognizes lease liabilities, which are reported as other liabilities or long-term debt, and right-of-use assets, which are reported as other assets. Lease liabilities are recognized at the lease commencement date based on the present value of future lease payments over the lease term. Right-of-use assets are initially measured based on the lease liability, adjusted for any initial direct costs, any lease payments made prior to lease commencement and for any lease incentives.

- Refer to “Note 23 – Other assets and other liabilities”, “Note 24 – Leases” and “Note 26 – Long-term debt” for further information.

Periods covered by options that permit the Group to extend or terminate a lease are only included in the measurement of right-of-use assets and lease liabilities when it is reasonably certain that the Group would exercise the extension option or would not exercise the termination option. Lease payments which depend on an index or a referenced rate are considered unavoidable and are included in the lease liabilities using the index or rate as of the lease commencement date. Other variable lease payments, as well as subsequent changes in an index or referenced rate, are excluded from the lease liabilities. The Group’s incremental borrowing rate, which is used in determining the present value of lease payments, is derived from information available at the lease commencement date.

Operating lease costs, which include amortization and an interest component, are recognized over the remaining lease term on a straight-line basis. Operating and variable lease costs are recognized in general and administrative expenses.

For sales-type and direct financing leases under lessor arrangements, which are classified as loans, the Group de-recognizes the underlying assets and recognizes a net investment in the lease. The net investment in the lease is calculated as the lease receivable plus the unguaranteed portion of the estimated residual value. The lease receivable is initially measured at the present value of the sum of the future lease payments receivable over the lease term and any portion of the estimated residual value at the end of the lease term that is guaranteed by either the lessee or an unrelated third party. Lease terms may include options that permit the lessee to extend or renew these leases. Such options are only included in the measurement of lease receivables for sales-type and direct financing leases when it is reasonably certain that the lessee would exercise these options. Subsequently, unearned income is amortized to interest income over the lease term using the effective interest method.

- Refer to “Note 19 – Loans”, “Note 20 – Financial instruments measured at amortized cost and credit losses” and “Note 24 – Leases” for further information.

For operating leases under lessor arrangements, the Group continues to recognize the underlying asset and depreciates the asset over its estimated useful life. Lease income is recognized in other income on a straight-line basis over the lease term.

Recognition of an impairment on non-financial assets

The Group evaluates premises, equipment, right-of-use assets and finite intangible assets for impairment at least annually and whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The impairment assessment is performed for a group of assets for which largely separate cash flows can be identified. Where the carrying amount for the group of assets exceeds the fair value, the group of assets is considered impaired and an impairment is recorded in general and administrative expenses. Recognition of an impairment on such assets establishes a new cost base, which is not adjusted for subsequent recoveries in value.

Customer deposits

Customer deposits represent funds held from customers (both retail and commercial) and banks and consist of interest-bearing demand deposits, savings deposits and time deposits. Interest is accrued based on the contractual provisions of the deposit contract.

Long-term debt

Total long-term debt is composed of debt issuances that do not contain derivative features as well as hybrid debt. Hybrid debt includes capital instruments as well as those issued as part of the Group’s structured product activities. Long-term debt includes both Swiss franc and foreign currency denominated fixed and variable rate bonds.

The Group actively manages interest rate risk and foreign currency risk on vanilla debt through the use of derivative contracts, primarily interest rate and currency swaps. In particular, fixed rate debt is hedged with receive-fixed, pay-floating interest rate swaps, and the Group applies hedge accounting per the guidance of ASC Topic 815 – Derivatives and Hedging.

For capital management purposes, the Group has outstanding hybrid capital instruments in the form of low- and high-trigger tier 1 and tier 2 capital notes, with a write-off or contingent share conversion feature. Typically, these instruments have an embedded derivative that is bifurcated for accounting purposes. The embedded derivative is measured separately and changes in fair value are recorded in trading revenue. The host contract is generally accounted for under the amortized cost method unless the fair value option has been elected and the entire instrument is carried at fair value.

The Group's long-term debt also includes various equity-linked and other indexed instruments with embedded derivative features, for which payments and redemption values are linked to commodities, stocks, indices, currencies or other assets. The Group elected to account for substantially all of these instruments at fair value.

Changes in the fair value of fair-value option elected instruments are recognized as a component of trading revenues, except for changes in fair value attributed to own credit risk, which is recorded in other comprehensive income (OCI), net of tax, and recycled to trading revenue when the debt is de-recognized.

Guarantees

In cases where the Group acts as a guarantor, the Group recognizes in other liabilities, at the inception of a guarantee, a liability for the fair value of the obligations undertaken in issuing such a guarantee, including its ongoing obligation to perform over the term of the guarantee in the event that certain events or conditions occur. Contingent obligations under issued guarantees not related to a financial obligation such as performance guarantees and non-financial standby letters of credit are assessed for the probability of loss on an ongoing basis. Contingent obligations under issued guarantees related to a financial obligation such as credit guarantees and financial standby letters of credit are assessed for CECL at reporting date.

Pension and other post-retirement benefits

Credit Suisse sponsors a number of post-employment benefit plans for its employees worldwide, which include defined benefit pension plans and other post-employment benefits. The major plans are located in Switzerland, the UK and the US.

The Group uses the projected unit credit actuarial method to determine the present value of its projected benefit obligations (PBO) and the current and past service costs or credits related to its defined benefit and other post-retirement benefit plans. The measurement date used to perform the actuarial valuation is December 31 and is performed by independent qualified actuaries.

Certain key assumptions are used in performing the actuarial valuations. These assumptions must be made concerning the future events that will determine the amount and timing of the benefit payments and thus require significant judgment and estimates by Group management. This includes making assumptions with regard to discount rates, salary increases, interest rate on savings balances, expected long-term rate of return on plan assets and mortality (future life expectancy).

The assumed discount rates reflect the rates at which the pension benefits could be effectively settled. These rates are determined based on yield curves, constructed from high-quality corporate bonds currently available and observable in the market and are expected to be available during the period to maturity of the pension benefits. In countries where there is no deep market in

high-quality corporate bonds with longer durations, the best available market information, including governmental bond yields and risk premiums, is used to construct the yield curve.

Salary increases are determined by reviewing historical practice and external market data as well as considering internal projections.

The interest rate on savings balances is applicable only to the Credit Suisse Swiss pension plan (Swiss pension plan). The Board of Trustees of the Swiss pension plan sets the interest rate to be applied on the accumulated savings balance on an annual basis. Credit Suisse estimates the future interest rate on savings balances, taking into consideration actions and rates approved by the Board of Trustees of the Swiss pension plan and expected future changes in the interest rate environment based on the yield curve used for the discount rate.

The expected long-term rate of return on plan assets is determined on a plan-by-plan basis, taking into account asset allocation, historical rate of return, benchmark indices for similar-type pension plan assets, long-term expectations of future returns and investment strategy.

Mortality assumptions are based on standard mortality tables and standard models and methodologies for projecting future improvements to mortality as developed and published by external independent actuarial societies and actuarial organizations.

Health care cost trend rates are determined by reviewing external data and the Group's own historical trends for health care costs.

The funded status of the Group's defined benefit post-retirement and pension plans is recognized in the consolidated balance sheets.

Actuarial gains and losses in excess of 10% of the greater of the PBO or the market value of plan assets are amortized to net periodic pension and other post-retirement benefit costs on a straight-line basis over the expected average remaining service period of the active participants expected to receive benefits from the plan. If all or almost all of the participants are inactive, the amortization period is based on the average remaining life expectancy of the inactive participants. Prior service costs are amortized on a straight-line basis over the expected average remaining service period of the active participants expected to receive benefits from the plan immediately after the date the plan amendment is adopted. If all or almost all of the participants are inactive, the amortization period is based on the average remaining life expectancy of the inactive participants.

If the cost of settlements is above the threshold, the settlement gain or loss recognized in earnings is the actuarial net gain/loss transferred out of accumulated other comprehensive income. Where only a part of the PBO is settled, the amount recognized in earnings includes a proportionate share of the net actuarial gain/loss recognized in accumulated other comprehensive income equal to the percentage reduction of the PBO. The threshold is defined as the sum of the service cost and interest cost of that year.

The Group records pension expense for defined contribution plans when the employee renders service to the company, essentially coinciding with the cash contributions to the plans.

Share-based compensation

For all share-based awards granted to employees, compensation expense is measured at grant date or modification date based on the fair value of the number of awards for which the requisite service is expected to be rendered and is recognized in the consolidated statements of operations over the required service period.

The incremental tax effects of the difference between the compensation expense recorded in the US GAAP accounts and the tax deduction received, are recorded in the income statement at the point in time the deduction for tax purposes is recorded.

Compensation expense for share-based awards that vest in their entirety at the end of the vesting period (cliff vesting) and awards that vest in annual installments (graded vesting), which only contain a service condition that affects vesting, is recognized on a straight-line basis over the service period for the entire award. However, if awards with graded vesting contain a performance condition, then each installment is expensed as if it were a separate award (“front-loaded” expense recognition). Furthermore, recognition of compensation expense is accelerated to the date an employee becomes eligible for retirement.

Performance share awards contain a performance condition. In the event of either a negative return on equity (ROE) of the Group or a divisional loss, any outstanding performance share awards will be subject to a reduction. The amount of compensation expense recorded includes an estimate of any expected reductions. For each reporting period after the grant date, the expected number of shares to be ultimately delivered upon vesting is reassessed and reflected as an adjustment to the cumulative compensation expense recorded in the income statement. The basis for the ROE calculation may vary from year to year, depending on the Compensation Committee’s determination for the year in which the performance shares are granted.

Certain employees own equity interests in the form of carried interests in certain funds managed by the Group. Expenses recognized under these ownership interests are reflected in the consolidated statements of operations in compensation and benefits.

Own shares, own bonds and financial instruments on own shares

The Group may buy and sell own shares, own bonds and financial instruments on own shares within its normal trading and market-making activities. In addition, the Group may hold its own shares to satisfy commitments arising from employee share-based compensation awards. Own shares are recorded at cost and reported as treasury shares, resulting in a reduction to total shareholders’ equity. Financial instruments on own shares are recorded

as assets or liabilities or as equity when the criteria for equity classification are met. Dividends received by subsidiaries on own shares and unrealized and realized gains and losses on own shares classified in total shareholders’ equity are excluded from the consolidated statements of operations.

Any holdings of bonds issued by any Group entity are eliminated in the consolidated financial statements.

Net interest income

Interest income and interest expense arising from interest-bearing assets and liabilities other than those carried at fair value or the lower of cost or market are accrued, and any related net deferred premiums, discounts, origination fees or costs are amortized as an adjustment to the yield over the life of the related asset and liability. Interest from debt securities and dividends on equity securities carried as trading assets and trading liabilities are recorded in interest and dividend income.

- Refer to “Loans” for further information on interest on loans.

Commissions and fees

Commissions and fees include revenue from contracts with customers. The Group recognizes revenue when it satisfies a contractual performance obligation. The Group satisfies a performance obligation when control of the underlying good or services related to the performance obligation is transferred to the customer. Control is the ability to direct the use of, and obtain substantially all of the remaining benefits from, the good or service. The Group must determine whether control of a good or service is transferred over time. If so, the related revenue is recognized over time as the good or service is transferred to the customer. If not, control of the good or service is transferred at a point in time. The performance obligations are typically satisfied as the services in the contract are rendered. Revenue is measured based on the consideration specified in a contract with a customer, and excludes any amounts collected on behalf of third parties. The transaction price can be a fixed amount or can vary because of performance bonuses or other similar items. Variable consideration is only included in the transaction price once it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the amount of variable consideration is subsequently resolved. Generally, no significant judgement is required with respect to recording variable consideration.

When another party is involved in providing goods or services to a customer, the Group must determine whether the nature of its promise is a performance obligation to provide the specified goods or services itself (that is, the Group is a principal) or to arrange for those goods or services to be provided by the other party (that is, the Group is an agent). The Group determines whether it is a principal or an agent for each specified good or service promised to the customer. Gross presentation (revenue on the revenue line and expense on the expense line) is appropriate

when the Group acts as principal in a transaction. Conversely, net presentation (revenue and expenses reported net) is appropriate when the Group acts as an agent in the transaction.

Transaction-related expenses are expensed as incurred. Underwriting expenses are deferred and recognized along with the underwriting revenue.

- Refer to “Note 14 – Revenue from contracts with customers” for further information.

2 Recently issued accounting standards

Recently adopted accounting standards

SAB 121 – Accounting for Digital Asset Custodial Relationships

In March 2022, the US Securities and Exchange Commission (SEC) published SEC Staff Accounting Bulletin (SAB) No. 121, “Accounting for Obligations to Safeguard Crypto-Assets an Entity Holds for Platform Users” (SAB 121). SAB 121 introduces interpretive guidance requiring the recognition of a liability and a corresponding asset to account for obligations to safeguard digital assets held for clients. SAB 121 requires additional disclosure of such custodial relationships in the interim and annual financial statements. The guidance within SAB 121 is effective for the interim and annual periods ending after June 15, 2022, with retrospective application to the beginning of the fiscal year. The adoption of SAB 121 did not have a material impact on the Group’s financial position, results of operations or cash flows.

Standards to be adopted in future periods

ASC Topic 326 – Financial Instruments – Credit Losses

In March 2022, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2022-02, “Troubled Debt Restructurings and Vintage Disclosures” (ASU 2022-02), an update to ASC Topic 326 – Financial Instruments – Credit Losses. The amendments in ASU 2022-02 eliminate the accounting guidance for Troubled Debt Restructurings by creditors. The loan refinancing and restructuring guidance in ASC Topic 310 – Receivables will be applied to determine whether a modification results in a new loan or a continuation of an existing loan. The amendments enhance disclosure requirements for certain loan refinancings and restructurings when a borrower is experiencing financial difficulty and require disclosure

of current period gross write-offs by year of origination for financing receivables and net investments in leases.

The amendments are effective for annual reporting periods beginning after December 15, 2022 and for the interim periods within those annual reporting periods. Early adoption is permitted, including in an interim period. The adoption of ASU 2022-02 on January 1, 2023, applying the modified retrospective approach did not have a material impact on the Group’s financial position, results of operations or cash flows.

ASC Topic 820 – Fair Value Measurement

In June 2022, the FASB issued ASU 2022-03, “Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions” (ASU 2022-03), an update to ASC Topic 820 – Fair Value Measurement. The amendments in ASU 2022-03 clarify that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the equity security and, therefore, is not considered in measuring fair value. The amendments clarify that an entity cannot, as a separate unit of account, recognize and measure a contractual sale restriction. The amendments require new disclosures related to equity securities subject to contractual sale restrictions, including the fair value of such equity securities, the nature and remaining duration of the corresponding restrictions and any circumstances that could cause a lapse in the restrictions.

The amendments are effective for annual reporting periods beginning after December 15, 2023 and for the interim periods within those annual reporting periods. Early adoption is permitted, including in an interim period. The Group is currently evaluating the impact of the adoption of ASU 2022-03 on the Group’s financial position, results of operations and cash flows.

Business developments**Strategic review**

On October 27, 2022, Credit Suisse announced a series of decisive actions following a strategic review conducted by the Board of Directors and Executive Board, focused on a restructuring of the Investment Bank, an accelerated cost transformation, and strengthened and reallocated capital. The transformation is intended to be funded through divestments, exits, capital actions and existing resources. As the Group implements these actions, restructuring costs, including from asset impairments and liability valuations, are expected to arise in connection with business activities the Group plans to exit or transfer and their related infrastructure.

Effective January 1, 2023, reflecting the strategic announcement of October 27, 2022, the Group is organized into five divisions – Wealth Management, Swiss Bank, Asset Management and the Investment Bank, as well as a new Capital Release Unit (CRU). Beginning in the first quarter of 2023, the Group’s financial reporting will be presented accordingly. Core results include the results of the divisions and the Corporate Center and exclude the results of the CRU.

Capital increase

On November 23, 2022, Credit Suisse Group AG held an Extraordinary General Meeting, at which shareholders approved two capital increases. Credit Suisse Group AG completed the first capital increase on November 25, 2022 by way of a share placement of 462,041,884 newly issued shares to qualified investors resulting in gross proceeds of CHF 1.76 billion. Credit Suisse Group AG completed the second capital increase by way of a rights offering on December 9, 2022. By the end of the rights exercise period, 98.2% of the rights had been exercised for the issuance of 872,989,594 shares. The remaining 16,378,864 newly issued shares for which rights were not exercised were sold in the market. The rights offering resulted in gross proceeds of CHF 2.25 billion. The capital increases resulted in 1,351,410,342 newly issued shares and gross proceeds for Credit Suisse Group AG of CHF 4.0 billion. Credit Suisse Group AG made capital contributions of CHF 3.89 billion to its wholly owned subsidiary Credit Suisse AG.

Liquidity issues in the fourth quarter of 2022

As previously disclosed, during early fourth quarter of 2022, Credit Suisse began experiencing significantly higher withdrawals of cash deposits as well as non-renewal of maturing time deposits. However, as the quarter progressed, these outflows stabilized to much lower levels but had not yet reversed by year end, and customer deposits declined by CHF 138 billion in the fourth quarter of 2022. As is normal practice, the Group also limited its access to the capital markets in the period immediately preceding the Group’s strategy announcements on October 27, 2022.

Outflows in assets under management in the fourth quarter of 2022

As previously disclosed, Credit Suisse began experiencing deposit and net asset outflows in early fourth quarter of 2022 at levels that substantially exceeded the rates incurred in the third quarter of 2022. At the Group level, net asset outflows in the fourth quarter of 2022 were approximately 8% of assets under management as of the end of the third quarter of 2022, with approximately two-thirds of these net asset outflows in the quarter concentrated in October 2022.

- Refer to “Note 39 – Assets under management” for further information.

Sale of CS Trust business

On September 6, 2022, the Group signed separate agreements with The Bank of N.T. Butterfield & Son Limited (Butterfield) and Gasser Partner Trust reg. (Gasser Partner) for the sale of its global trust business (Credit Suisse Trust, CST). Under separate agreements, Butterfield will acquire CST’s businesses based in Guernsey, Singapore and The Bahamas, while Gasser Partner will acquire CST’s Liechtenstein business.

The transaction with Butterfield is expected to close in 2023 and is subject to customary conditions. The transfer of a majority of the trust structures in Liechtenstein occurred on February 28, 2023, with the expectation that a small number of remaining trust structures will transfer on a rolling basis in the first half of 2023. Upon completion of the transactions, Butterfield and Gasser Partner will take over the ongoing management and administration of most of the trust structures in the respective jurisdictions.

Allfunds Group

On October 21, 2022, the Group announced the successful completion of the offering of its entire shareholding in Allfunds Group plc (Allfunds Group), which represented approximately 8.6% of the share capital of Allfunds Group, through an accelerated bookbuild offering to institutional investors. Following the completion of this transaction, the Group no longer holds any shares in Allfunds Group.

Energy Infrastructure Partners

On October 21, 2022, the Group entered into an agreement with the managing partners of Energy Infrastructure Partners AG (EIP) to acquire the Group’s remaining 30% stake in EIP. Following the completion of this transaction, the Group no longer holds any shares in EIP.

Significant shareholders**Significant shareholders registered in the share register**

The following table includes significant shareholders (including nominees) with holdings in Group shares of at least 5% of the voting rights, which were registered in the share register as of December 31, 2022 and 2021, respectively.

Significant shareholders registered in the share register

end of	2022			2021		
	Number of shares (million)	Total nominal value (CHF million)	Share-holding (%)	Number of shares (million)	Total nominal value (CHF million)	Share-holding (%)
Direct shareholders ¹						
Chase Nominees Ltd. ²	433	17	10.83	304	12	11.48
Nortrust Nominees Ltd. ²	217	9	5.43	197	8	7.42
The Bank of New York Mellon ²	213	9	5.31	139	6	5.25

¹ As registered in the share register of the Group on December 31 of the reporting period; includes shareholders registered as nominees.

² Nominee holdings exceeding 2% are registered with a right to vote only if the nominee confirms that no individual shareholder holds more than 0.5% of the outstanding share capital or if the nominee discloses the identity of any beneficial owner holding more than 0.5% of the outstanding capital.

Information received from shareholders not registered in the share register

In addition to the shareholdings registered in the share register of the Group, the Group has obtained and reported to the SIX Swiss Exchange information from its shareholders in accordance with the notification requirements of the Swiss Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading. These shareholders may hold their shareholdings in Group shares through a nominee. The following shareholder notifications relate to registered voting rights exceeding 5% of all voting rights, which are subject to disclosure in the notes to the financial statements in accordance with the Swiss Code of Obligations. The percentage shareholdings below are presented with two decimal places.

In a disclosure report that the Group published on November 17, 2021, the Group was notified that as of November 12, 2021, Qatar Holding LLC, a wholly owned subsidiary of Qatar Investment Authority, held 133.2 million shares, or 5.03% of the voting rights, of the registered Group shares issued as of the date of the notified transaction.

In a disclosure report that the Group published on December 10, 2022, the Group was notified that as of December 9, 2022, the Saudi National Bank held 395.5 million shares, or 9.88% of the voting rights, of the registered Group shares issued as of the date of the notified transaction.

In a disclosure report that the Group published on December 8, 2022, the Group was notified that as of November 29, 2022, Harris Associates L.P.'s holdings of registered Group shares had fallen below the 5% reporting threshold.

Subsequent events

Securitized Products Group

On November 15, 2022, Credit Suisse announced that it had entered into definitive transaction agreements to sell a significant part of its Securitized Products Group (SPG) to entities and funds managed by affiliates of Apollo Global Management. This transaction involves phased closings through the first half of 2023 and represents an important step towards a managed exit from the SPG business and to de-risk the bank. On February 7, 2023, the parties completed the first closing of such transaction and the majority of the assets and professionals associated with the transaction are now part of or managed by ATLAS SP Partners, a new standalone credit firm focused on asset-backed financing and capital markets solutions. On February 23, 2023, the parties completed the second closing of such transaction, with further assets transferred.

CS First Boston

On February 9, 2023, the Group announced the acquisition of The Klein Group LLC, the investment banking business as well as the registered broker-dealer of M. Klein & Company LLC (the seller). The purchase price is USD 175 million. To align interests with the Group, the seller will receive a convertible note and a warrant. The note will provide annual payments and convert into, and the warrant entitles the seller to subscribe to, CS First Boston shares at a qualified initial public offering (IPO) or other liquidity event, at the then-valuation of CS First Boston, less a customary discount. The principal amount of the convertible note is expected to be USD 100 million, with the balance being paid in cash dependent on taxes to be paid by the seller at closing. The net present value of the transaction to the Group is expected to be approximately USD 210 million, which also includes interest cost, annual payments on the note and other payments that may in the future become payable in respect of this transaction. The transaction is expected to close in the first half of 2023.

- Refer to "Note 21 – Goodwill" for further information.

4 Segment information

The Group is a global financial services company domiciled in Switzerland and, effective January 1, 2022 until December 31, 2022, was organized into four divisions – Wealth Management, Investment Bank, Swiss Bank and Asset Management. Prior periods were restated to conform to the current presentation.

- Refer to “Note 3 – Business developments, significant shareholders and subsequent events” for further information on the Group’s divisional organization effective January 1, 2023.

The segment information reflects the Group’s reportable segments and the Corporate Center, which are managed and reported on a pre-tax basis, as follows:

- The **Wealth Management** division offers comprehensive wealth management and investment solutions and tailored financing and advisory services to UHNW and HNW individuals and external asset managers. We serve our clients through coverage areas addressing the geographies of Switzerland, Europe, Middle East and Africa, Asia Pacific and Latin America.
- The **Investment Bank** division offers a broad range of financial products and services. Our suite of products and services includes global securities sales, trading and execution, capital raising and advisory services. Our clients include financial institutions, corporations, governments, sovereigns, UHNW and institutional investors, such as pension funds and hedge funds, financial sponsors and private individuals around the world.
- The **Swiss Bank** division offers comprehensive advice and a wide range of financial solutions to private, corporate and institutional clients primarily domiciled in our home market of Switzerland. Our private clients business has a leading franchise in Switzerland, including HNW, affluent, retail and small business clients. In addition, we provide consumer finance services through our subsidiary BANK-now and the leading credit card brands through our investment in Swisscard AECS GmbH. Our corporate and institutional clients business serves large corporate clients, small and medium-sized enterprises, institutional clients, financial institutions and commodity traders.
- The **Asset Management** division offers investment solutions and services globally to a broad range of clients, including pension funds, governments, foundations and endowments, corporations and individuals, with a strong presence in our Swiss home market. Backed by the Group’s global presence, Asset Management offers active and passive solutions in traditional investments as well as alternative investments.

Corporate Center included parent company operations such as Group financing, expenses for projects sponsored by the Group and certain expenses and revenues that had not been allocated to the segments. In addition, the Corporate Center included

consolidation and elimination adjustments required to eliminate intercompany revenues and expenses.

Revenue sharing and cost allocation

Responsibility for each product is allocated to a specific segment, which records all related revenues and expenses. Revenue-sharing and service level agreements govern the compensation received by one segment for generating revenue or providing services on behalf of another. These agreements are negotiated periodically by the relevant segments on a product-by-product basis. The aim of revenue-sharing and service level agreements is to reflect the pricing structure of unrelated third-party transactions.

Corporate services and business support in finance, operations, human resources, legal, compliance, risk management and IT are provided by corporate functions, and the related costs are allocated to the segments and Corporate Center based on their requirements and other relevant measures.

Funding

The Group centrally manages its funding activities. New instruments for funding and capital purposes are primarily issued by Credit Suisse Group AG and are passed on to Credit Suisse AG, the direct bank subsidiary of the Group (the Bank). The Bank lends funds to its operating subsidiaries and affiliates on both a senior and subordinated basis, as needed, the latter typically to meet capital requirements, or as desired by management to capitalize on opportunities. Capital is distributed to the segments considering factors such as regulatory capital requirements, utilized economic capital and the historic and future potential return on capital.

Transfer pricing, using market rates, is used to record net revenues and expenses in each of the segments for this capital and funding. The Group’s funds transfer pricing system is designed to allocate funding costs to its businesses in a way that incentivizes their efficient use of funding. The Group’s funds transfer pricing system is an essential tool that allocates to the businesses the short-term and long-term costs of funding their balance sheet usages and off-balance sheet contingencies. The funds transfer pricing framework ensures the full funding costs allocation under normal business conditions, but it is of even greater importance in a stressed capital markets environment where raising funds is more challenging and expensive. Under this framework, the Group’s businesses are also credited to the extent they provide long-term stable funding.

Net revenues and income/(loss) before taxes

in	2022	2021	2020
Net revenues (CHF million)			
Wealth Management	4,952	7,031	7,081
Investment Bank	4,607	9,908	10,153
Swiss Bank	4,093	4,316	4,212
Asset Management	1,294	1,508	1,140
Corporate Center	(25)	(67)	(197)
Net revenues	14,921	22,696	22,389
Income/(loss) before taxes (CHF million)			
Wealth Management	(631)	2,307	2,053
Investment Bank	(3,116)	(3,473)	1,910
Swiss Bank	1,545	1,918	1,468
Asset Management	146	362	28
Corporate Center	(1,202)	(1,714)	(1,992)
Income/(loss) before taxes	(3,258)	(600)	3,467

Total assets

end of	2022	2021
Total assets (CHF million)		
Wealth Management	150,411	201,326
Investment Bank	146,846	274,112
Swiss Bank	197,059	221,478
Asset Management	3,373	3,603
Corporate Center	33,669	55,314
Total assets	531,358	755,833

Net revenues and income/(loss) before taxes by geographical location

in	2022	2021	2020
Net revenues (CHF million)			
Switzerland	5,436	7,285	7,719
EMEA	1,763	3,524	3,885
Americas	6,054	8,827	7,614
Asia Pacific	1,668	3,060	3,171
Net revenues	14,921	22,696	22,389
Income/(loss) before taxes (CHF million)			
Switzerland	(988)	257	1,770
EMEA	(1,645)	(4,929)	(124)
Americas	664	3,781	1,577
Asia Pacific	(1,289)	291	244
Income/(loss) before taxes	(3,258)	(600)	3,467

The designation of net revenues and income/(loss) before taxes is based on the location of the office recording the transactions. This presentation does not reflect the way the Group is managed.

Total assets by geographical location

end of	2022	2021
Total assets (CHF million)		
Switzerland	202,341	256,261
EMEA	94,425	163,659
Americas	181,221	249,656
Asia Pacific	53,371	86,257
Total assets	531,358	755,833

The designation of total assets by region is based upon customer domicile.

5 Net interest income

in	2022	2021	2020
Net interest income (CHF million)			
Loans	5,887	5,049	5,733
Investment securities	14	1	3
Trading assets, net of trading liabilities ¹	2,539	2,838	3,158
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	2,135	1,172	1,596
Other	1,676	598	771
Interest and dividend income	12,251	9,658	11,261
Deposits	(1,746)	(159)	(1,113)
Short-term borrowings	(131)	(86)	(166)
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(768)	(812)	(907)
Long-term debt	(3,590)	(2,518)	(2,753)
Other	(675)	(272)	(374)
Interest expense	(6,910)	(3,847)	(5,313)
Net interest income	5,341	5,811	5,948

1 Interest and dividend income is presented on a net basis to align with the presentation of trading revenues for trading assets and liabilities.

7 Trading revenues

in	2022	2021	2020
Trading revenues (CHF million) ¹			
Interest rate products	(1,374)	1,110	(1,068)
Foreign exchange products	529	1,138	2,587
Equity/index-related products	501	1,614	1,127
Credit products	540	(1,416)	482
Commodity and energy products	8	(6)	62
Other products	(655)	(9)	105
Trading revenues	(451)	2,431	3,295

Represents revenues on a product basis which are not representative of business results within segments, as segment results utilize financial instruments across various product types.

1 The classification of certain product types has been revised, prior periods have been reclassified to conform to the current presentation.

Trading revenues include revenues from trading financial assets and liabilities as follows:

- Equities;
- Commodities;
- Listed and OTC derivatives;
- Derivatives linked to funds of hedge funds and providing financing facilities to funds of hedge funds;

6 Commissions and fees

in	2022	2021	2020
Commissions and fees (CHF million)			
Lending business	1,438	1,877	1,631
Investment and portfolio management	3,079	3,497	3,187
Other securities business	61	56	66
Fiduciary business	3,140	3,553	3,253
Underwriting	491	2,493	2,255
Brokerage	2,265	3,069	3,244
Underwriting and brokerage	2,756	5,562	5,499
Other services	1,519	2,173	1,470
Commissions and fees	8,853	13,165	11,853

- Market making in the government bond and associated OTC derivative swap markets;
- Domestic, corporate and sovereign debt, convertible and non-convertible preferred stock and short-term securities such as floating rate notes and commercial paper (CP);
- Market making and positioning in foreign exchange products;
- Credit derivatives on investment grade and high yield credits;
- Trading and securitizing all forms of securities that are based on underlying pools of assets; and
- Life settlement contracts.

Trading revenues also include changes in the fair value of financial assets and liabilities elected to fair value under US GAAP. The main components include certain instruments from the following categories:

- Central bank funds purchased/sold;
- Securities purchased/sold under resale/repurchase agreements;
- Securities borrowing/lending transactions;
- Loans and loan commitments; and
- Customer deposits, short-term borrowings and long-term debt.

Managing the risks

As a result of the Group's broad involvement in financial products and markets, its trading strategies are correspondingly diverse and exposures are generally spread across a diversified range of risk factors and locations. The Group uses an economic capital limit structure to limit overall risk taking. The level of risk incurred by its divisions is further managed by a variety of factors and specific risk constraints, including consolidated controls over trading exposures. Also, as part of its overall risk management, the Group holds a portfolio of economic hedges. Hedges are impacted by market movements, similar to trading securities, and may result in gains or losses on the hedges which offset losses

8 Other revenues

in	2022	2021	2020
Other revenues (CHF million)			
Loans held-for-sale	(133)	(90)	(34)
Long-lived assets held-for-sale	374	232	26
Equity method investments	167	60	(254)
Other investments	(38)	253	769
Other	808	834	786
Other revenues	1,178	1,289	1,293

9 Provision for credit losses

in	2022	2021	2020
Provision for credit losses (CHF million)			
Loans held at amortized cost	188	(23)	863
Other financial assets held at amortized cost	(132) ¹	4,291 ¹	24
Off-balance sheet credit exposures	(40)	(63)	209
Provision for credit losses	16	4,205	1,096

¹ Primarily reflected a provision/(release of provision) for credit losses of CHF (155) million and CHF 4,307 million in 2022 and 2021, respectively, related to Archegos.

or gains on the portfolios they were designed to economically hedge. The Group manages its trading risk with regard to both market and credit risk. The Group uses market risk measurement and management methods capable of calculating comparable exposures across its many activities and employs focused tools that can model unique characteristics of certain instruments or portfolios.

The principal risk measurement methodology for trading book exposures is value-at-risk. Macroeconomic and specific hedging strategies are in place to manage and mitigate the market and credit risk in the trading book.

10 Compensation and benefits

in	2022	2021	2020
Compensation and benefits (CHF million)			
Salaries and variable compensation	7,274	7,533	8,401
Social security	605	622	653
Other ¹	934	808	836
Compensation and benefits	8,813	8,963	9,890

¹ Included pension-related expenses of CHF 501 million, CHF 503 million and CHF 517 million in 2022, 2021 and 2020, respectively, related to service costs for defined benefit pension plans and employer contributions for defined contribution plans.

11 General and administrative expenses

in	2022	2021	2020
General and administrative expenses (CHF million)			
Occupancy expenses	973	979	982
IT, machinery and equipment	1,964	1,549	1,428
Provisions and losses	1,581	1,491	1,261
Travel and entertainment	232	149	152
Professional services	2,143	1,996	1,546
Communication and market data services	539	520	512
Amortization and impairment of other intangible assets	4	8	8
Other ¹	346	467	634
General and administrative expenses	7,782	7,159	6,523

¹ Included pension-related expenses/(credits) of CHF (187) million, CHF (166) million and CHF (159) million in 2022, 2021 and 2020, respectively, related to certain components of net periodic benefit costs for defined benefit plans.

12 Restructuring expenses

On October 27, 2022, the Group announced certain strategic actions following the comprehensive review conducted by the Board of Directors and the Executive Board, which include measures to reduce the Group's cost base in 2025. The Group estimates restructuring expenses of approximately CHF 2.9 billion over a period from the fourth quarter of 2022 to 2024. The restructuring program announced in November 2021 closed at the end of September 2022. The restructuring program announced in July 2020 closed at the end of June 2021. The Group recorded restructuring expenses of CHF 533 million, CHF 103 million and CHF 157 million in 2022, 2021 and 2020, respectively.

Restructuring expenses may include severance expenses, other personnel-related charges, pension expenses and contract termination costs.

Restructuring expenses by segment

in	2022	2021	2020
Restructuring expenses by segment (CHF million)			
Wealth Management	109	19	41
Investment Bank	327	71	48
Swiss Bank	21	11	42
Asset Management	16	3	18
Corporate Center	60	(1)	8
Total restructuring expenses	533	103	157

Restructuring expenses by type

in	2022	2021	2020
Restructuring expenses by type (CHF million)			
Compensation and benefits-related expenses	362	45	107
of which severance expenses	159	25	69
of which accelerated deferred compensation	194	20	38
General and administrative-related expenses	171	58	50
of which pension expenses	37	(11)	38
Total restructuring expenses	533¹	103	157

¹ CHF 357 million related to the strategic actions announced on October 27, 2022.

Restructuring liabilities

in	2022			2021			2020		
	Compensation and benefits	General and administrative expenses	Total	Compensation and benefits	General and administrative expenses	Total	Compensation and benefits	General and administrative expenses	Total
Restructuring liabilities (CHF million)									
Balance at beginning of period	19	0	19	50	2	52	—	—	—
Net additional charges ¹	159	96	255	25	37	62	69	6	75
Reclassifications	—	—	—	(22)	(3)	(25) ²	—	—	—
Utilization	(56)	(96)	(152)	(34)	(36)	(70)	(19)	(4)	(23)
Balance at end of period	122	0	122	19	0	19	50	2	52

¹ The following items for which expense accretion was accelerated in 2022, 2021 and 2020 due to the restructuring of the Group were not included in the restructuring liabilities: unsettled share-based compensation of CHF 95 million, CHF 13 million and CHF 27 million, respectively, which remained classified as a component of total shareholders' equity; other personnel-related charges of CHF 108 million, CHF 7 million and CHF 11 million, respectively, which remained classified as compensation liabilities; unsettled pension obligations of CHF 37 million, CHF (11) million and CHF 38 million, respectively, which remained classified as pension liabilities; and accelerated accumulated depreciation and impairment of CHF 38 million, CHF 32 million and CHF 6 million, respectively, which remained classified as premises and equipment. The settlement date for the unsettled share-based compensation remained unchanged at three years.

² Reclassified within other liabilities.

13 Earnings per share

in	2022	2021	2020
Basic net income/(loss) attributable to shareholders (CHF million)			
Net income/(loss) attributable to shareholders for basic earnings per share	(7,293)	(1,650)	2,669
Available for common shares	<u>(7,293)</u>	<u>(1,650)</u>	<u>2,669</u>
Diluted net income/(loss) attributable to shareholders (CHF million)			
Net income/(loss) attributable to shareholders for diluted earnings per share	(7,293)	(1,650)	2,669
Available for common shares	<u>(7,293)</u>	<u>(1,650)</u>	<u>2,669</u>
Weighted-average shares outstanding (million)			
For basic earnings per share available for common shares	2,862.0	2,627.6	2,624.1
Dilutive share options and warrants	0.0	0.0	1.8
Dilutive share awards	0.0	0.0	67.6
For diluted earnings per share available for common shares ^{1,2}	<u>2,862.0</u>	<u>2,627.6</u>	<u>2,693.5</u>
Weighted-average shares outstanding for basic/diluted earnings per share available for mandatory convertible notes	<u>—</u>	<u>106.6</u>	<u>—</u>
Earnings/(loss) per share available for common shares (CHF)			
Basic earnings/(loss) per share available for common shares	<u>(2.55)</u>	<u>(0.63)</u>	<u>1.02</u>
Diluted earnings/(loss) per share available for common shares	<u>(2.55)</u>	<u>(0.63)</u>	<u>0.99</u>

Prior periods have been adjusted to reflect the increase in the number of shares outstanding as a result of the discount element in the 2022 rights issue, as required under US GAAP.

- 1 Weighted-average potential common shares related to instruments that were not dilutive for the respective periods (and therefore not included in the diluted earnings per share calculation above) but could potentially dilute earnings per share in the future were 11.3 million, 10.2 million and 6.2 million for 2022, 2021 and 2020, respectively.
- 2 Due to the net losses in 2022 and 2021, 4.6 million and 0.7 million, respectively, of weighted-average share options and warrants outstanding and 40.9 million and 76.5 million, respectively, of weighted-average share awards outstanding were excluded from the diluted earnings per share calculation, as the effect would be antidilutive.

14 Revenue from contracts with customers

Revenue is measured based on the consideration specified in a contract with a customer, and excludes any amounts collected on behalf of third parties. Taxes assessed by a governmental authority that are collected by the Group from a customer and both imposed on and concurrent with a specific revenue-producing transaction are excluded from revenue. The Group recognizes revenue when it satisfies a contractual performance obligation. Variable consideration is only included in the transaction price once it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the amount of variable consideration is subsequently resolved. Generally no significant judgement is required with respect to recording variable consideration.

If a fee is a fixed percentage of a variable account value at contract inception, recognition of the fee revenue is constrained as the contractual consideration is highly susceptible to change due to factors outside of the Group's influence. However, at each performance measurement period end (e.g., end-of-day, end-of-month, end-of-quarter), recognition of the cumulative amount of the consideration to which the Group is entitled is no longer constrained because it is calculated based on a known account value and the fee revenue is no longer variable.

Nature of services

The following is a description of the principal activities from which the Group generates its revenues from contracts with customers.

The performance obligations are typically satisfied as the services in the contract are rendered. The contract terms are generally such that they do not result in any contract assets. The contracts generally do not include a significant financing component or obligations for refunds or other similar obligations. Any variable consideration included in the transaction price is only recognized when the uncertainty of the amount is resolved and it is probable that a significant reversal of cumulative revenue recognized will not occur.

Credit Suisse's wealth management businesses provide investment services and solutions for clients, including asset management, investment advisory and investment management, wealth planning, and origination and structuring of sophisticated financing transactions. The Group receives for these services investment advisory and investment management fees which are generally reflected in the line item "Investment and portfolio management" in the table "Contracts with customers and disaggregation of revenues" below. Generally, the fee for the service provided is recognized over the period of time the service is provided.

The wealth management businesses also provide comprehensive advisory services and tailored investment and financing solutions to private, corporate and institutional clients. The nature of the services range from investment and wealth management activities, which are services rendered over a period of time according to the contract with the customer, to more transaction-specific

services such as brokerage and sales and trading services and the offer of client-tailored financing products. The services are provided as requested by Credit Suisse's clients, and the fee for the service requested is recognized once the service is provided.

The Group's asset management businesses offer investment solutions and services globally to a broad range of clients, including pension funds, governments, foundations and endowments, corporations and individuals. Fund managers typically enter into a variety of contracts to provide investment management and other services. A fund manager may satisfy its performance obligation independently or may engage a third party to satisfy some or all of a performance obligation on the fund manager's behalf. Although the fund manager may have engaged a third party to provide inputs to the overall investment management services, the contractual obligation to provide investment management services to a customer remains the primary responsibility of the fund manager. As such, the fund manager is acting as a principal in the transaction. As a fund manager, the Group typically receives base management fees and may additionally receive performance-based management fees which are both recognized as "Investment and portfolio management" revenues in the table "Contracts with customers and disaggregation of revenues" below. Base management fees are generally calculated based on the NAV of the customer's investment, which can change during the performance period. Performance-based management fees are variable consideration received by the Group depending on the financial performance of the underlying fund. As both the base management fees and performance-based management fees are variable, the Group recognizes the fees once it is probable that a significant reversal of the revenue recognized will not occur and when the uncertainty of the amount is resolved. The estimate of these variable fees is constrained until the end of the performance measurement period. Generally, the uncertainty is resolved at the end of the performance measurement period and therefore no significant judgement is necessary when recording variable consideration. Under a clawback obligation provision, a fund manager may be required to return certain distributions received from a fund if a specific performance threshold, i.e., benchmark, is not achieved at the end of the lifetime of the fund. The contractual clawback obligation is an additional factor of uncertainty which is considered in the constraint assessment. If the performance-based management fee is earned but the clawback provision has not lapsed, the clawback obligation is accounted for as a refund liability.

The Group's capital markets businesses underwrite and sell securities on behalf of customers. Typically, the fees in these businesses are recognized at a single point in time once the transaction is complete, i.e., when the securities have been placed with investors, and recognized as underwriting revenue. All expenses incurred in satisfying the performance obligation are deferred and recognized once the transaction is complete. Generally Credit Suisse and other banks form a syndicate group to underwrite and place the securities for a customer. The Group may act as the lead or a participating member in the syndicate group. Each member of the syndicate group, including the lead and

participating underwriters, is acting as principal for their proportionate share of the syndication. As a result, the individual underwriters reflect their proportionate share of underwriting revenue and underwriting costs on a gross basis.

The Group also offers brokerage services in its investment banking businesses, including global securities sales, trading and execution, prime brokerage and investment research. For the services provided, such as the execution of client trades in securities or derivatives, the Group typically earns a brokerage commission when the trade is executed. The Group generally acts as an agent when buying or selling exchange-traded cash securities, exchange-traded derivatives or centrally cleared OTC derivatives on behalf of clients.

Credit Suisse's investment banking businesses provide services that include advisory services to clients in connection with corporate finance activities. The term "advisory" includes any type of service the Group provides in an advisory capacity. For these types of services, the Group typically receives a non-refundable retainer fee and/or a success fee which usually represents a percentage of the transaction proceeds if and when the corporate finance activity is completed. Additionally, the contract may contain a milestone fee such as an "announcement fee" that is payable upon the public announcement of the corporate finance activity. Typically the fees in the investment banking business are recognized at a specific point in time once it is determined that the performance obligation related to the transaction has been completed. A contract liability will be recorded if the Group receives a payment such as a retainer fee or announcement fee for an advisory service prior to satisfying the performance obligation. Advisory fees are recognized ratably over time in scenarios where the contracted service of the Group is to act as an advisor over a specified period not related to or dependent on the successful completion of a transaction. Revenues recognized from these services are reflected in the line item "Other Services" in the table below.

Contracts with customers and disaggregation of revenues

in	2022	2021	2020
Contracts with customers (CHF million)			
Investment and portfolio management	3,079	3,497	3,187
Other securities business	61	56	66
Underwriting	491	2,493	2,255
Brokerage	2,264	3,067	3,242
Other services	1,509	2,161	1,475
Total revenues from contracts with customers	7,404	11,274	10,225

The table above differs from "Note 6 – Commissions and fees" as it includes only those contracts with customers that are in scope of ASC Topic 606 – Revenue from Contracts with Customers.

Contract balances

end of	2022	2021
Contract balances (CHF million)		
Contract receivables	687	865
Contract liabilities	54	55

Contract balances

in	4Q22	3Q22	2Q22	1Q22
Revenue recognized (CHF million)				
Revenue recognized in the reporting period included in the contract liabilities balance at the beginning of period	8	11	10	14

The Group did not recognize any revenues in the reporting period from performance obligations satisfied in previous periods.

There were no material net impairment losses on contract receivables in 2022, 2021 or 2020. The Group did not recognize any contract assets during 2022, 2021 or 2020.

Capitalized costs

The Group has not incurred costs to obtain a contract nor costs to fulfill a contract that are eligible for capitalization.

Remaining performance obligations

ASC Topic 606's practical expedient allows the Group to exclude from its remaining performance obligations disclosure any performance obligations which are part of a contract with an original expected duration of one year or less. Additionally, any variable consideration, for which it is probable that a significant reversal in the amount of cumulative revenue recognized will occur when the uncertainty associated with the variable consideration is subsequently resolved, is not subject to the remaining performance obligations disclosure because such variable consideration is not included in the transaction price (e.g., investment management fees). Upon review, the Group determined that no material remaining performance obligations are in scope of the remaining performance obligations disclosure.

15 Securities borrowed, lent and subject to repurchase agreements

end of	2022	2021
Securities borrowed or purchased under agreements to resell (CHF million)		
Central bank funds sold and securities purchased under resale agreements	42,256	65,017
Deposits paid for securities borrowed	16,542	38,889
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	58,798	103,906
Securities lent or sold under agreements to repurchase (CHF million)		
Central bank funds purchased and securities sold under repurchase agreements	19,330	19,591
Deposits received for securities lent	950	15,683
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	20,280	35,274

Amounts shown after counterparty and cash collateral netting

Repurchase and reverse repurchase agreements represent collateralized financing transactions used to earn net interest income, increase liquidity or facilitate trading activity. These instruments are collateralized principally by government securities and corporate bonds and have terms ranging from overnight to a longer or unspecified period of time.

In the event of counterparty default, the reverse repurchase agreement or securities lending agreement provides the Group with the right to liquidate the collateral held. In the Group's normal course of business, a significant portion of the collateral received that may be sold or repledged has been sold or repledged as of December 31, 2022 and 2021.

16 Trading assets and liabilities

end of	2022	2021
Trading assets (CHF million)		
Debt securities	37,188	54,198
Equity securities	13,155	36,546
Derivative instruments ¹	11,101	17,559
Other	4,017	2,838
Trading assets	65,461	111,141
Trading liabilities (CHF million)		
Short positions	9,168	16,689
Derivative instruments ¹	8,945	10,604
Other	225	242
Trading liabilities	18,338	27,535

¹ Amounts shown after counterparty and cash collateral netting.

end of	2022	2021
Cash collateral on derivatives instruments – netted (CHF million) ¹		
Cash collateral paid	11,924	17,869
Cash collateral received	8,754	12,056
Cash collateral on derivatives instruments – not netted (CHF million) ²		
Cash collateral paid	7,723	7,659
Cash collateral received	2,036	5,533

¹ Recorded as cash collateral netting on derivative instruments in Note 28 – Offsetting of financial assets and financial liabilities.

² Recorded as cash collateral on derivative instruments in Note 23 – Other assets and other liabilities.

17 Investment securities

end of	2022	2021
Investment securities (CHF million)		
Debt securities held-to-maturity	921	0
Debt securities available-for-sale	797	1,005
Total investment securities	1,718	1,005

Investment securities by type

end of	2022					2021				
	Amortized cost	Allowance for credit losses	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Allowance for credit losses	Gross unrealized gains	Gross unrealized losses	Fair value
Investment securities by type (CHF million)										
Foreign governments	921	0	0	40	881	0	0	0	0	0
Debt securities held-to-maturity	921 ¹	0	0	40	881	0	0	0	0	0
Swiss federal, cantonal or local government entities	2	0	0	0	2	2	0	0	0	2
Corporate debt securities	951	0	0	156	795	1,011	0	0	8	1,003
Debt securities available-for-sale	953 ²	0	0	156	797	1,013	0	0	8	1,005

- 1 Excluded accrued interest on debt securities held-to-maturity of CHF 10 million as of December 31, 2022, with no related allowance for credit losses. Accrued interest was reported in other assets in the consolidated balance sheet.
- 2 Excluded accrued interest on debt securities available-for-sale of CHF 1 million as of December 31, 2022. Accrued interest was reported in other assets in the consolidated balance sheet.

Gross unrealized losses on debt securities and the related fair value

end of	Less than 12 months		12 months or more		Total	
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses
2022 (CHF million)						
Corporate debt securities	374	58	404	98	778	156
Debt securities available-for-sale	374	58	404	98	778	156
2021 (CHF million)						
Corporate debt securities	683	8	0	0	683	8
Debt securities available-for-sale	683	8	0	0	683	8

Unrealized losses on debt securities as of December 31, 2022 relate to twelve debt security positions held for liquidity purposes. The Group does not intend to sell these investments nor is it more likely than not that the Group will be required to sell these securities before the recovery of their amortized cost basis, which may be at maturity. Management determined that the unrealized losses on these debt securities were attributable to changes in market valuation driven by interest rate movements and not to credit-related factors. As a result, no impairment charges were recorded in the consolidated statements of operations.

- Refer to “Note 20 – Financial instruments measured at amortized cost and credit losses” for further information on debt securities held-to-maturity.

Proceeds from sales, realized gains and realized losses from debt securities available-for-sale

in	2022	2021	2020
Sales of debt securities available-for-sale (CHF million)			
Proceeds from sales	44	0	629
Realized gains	0	0	42
Realized losses	(6)	0	0

Amortized cost, fair value and average yield of debt securities

end of	Debt securities held-to-maturity			Debt securities available-for-sale		
	Amortized cost	Fair value	Average yield (in %)	Amortized cost	Fair value	Average yield (in %)
2022 (CHF million)						
Due within 1 year	0	0	0.00	19	19	0.89
Due from 1 to 5 years	921	881	3.94	237	210	0.33
Due from 5 to 10 years	0	0	0.00	697	568	0.36
Total debt securities	921¹	881	3.94	953²	797	0.36

1 Excluded accrued interest on debt securities held-to-maturity of CHF 10 million.

2 Excluded accrued interest on debt securities available-for-sale of CHF 1 million.

Allowance for credit losses on debt securities available-for-sale

A credit loss exists if there is a decline in fair value of the security below the amortized cost as a result of the non-collectability of the amounts due in accordance with the contractual terms.

An allowance for expected credit losses is recorded in the consolidated statement of operations in provision for credit losses and

the non-credit-related losses are recorded in AOCI. Subsequent improvements in the estimated credit losses are recorded in the consolidated statement of operations as a reduction in provision for credit losses. A security is written off when a determination is made that the security is uncollectible. As of the end of 2022 and 2021, the Group had no allowance for credit losses on debt securities available-for-sale.

18 Other investments

end of	2022	2021
Other investments (CHF million)		
Equity method investments	1,619	1,644
Equity securities (without a readily determinable fair value) ¹	3,213	3,317
of which at net asset value	73	54
of which at measurement alternative	368	347
of which at fair value	2,726	2,869
of which at cost less impairment	46	47
Real estate held-for-investment ²	99	76
Life finance instruments ³	587	789
Total other investments	5,518	5,826

1 Includes private equity, hedge funds and restricted stock investments as well as certain investments in non-marketable mutual funds for which the Group had neither significant influence nor control over the investee.

2 As of the end of 2022 and 2021, real estate held-for-investment included foreclosed or repossessed real estate of CHF 20 million and CHF 9 million, respectively, of which CHF 20 million and CHF 6 million, respectively, were related to residential real estate.

3 Includes single premium immediate annuity contracts.

Accumulated depreciation related to real estate held-for-investment amounted to CHF 28 million, CHF 32 million and CHF 35 million for 2022, 2021 and 2020, respectively.

No impairments were recorded on real estate held-for-investment in 2022 and 2021. An impairment of CHF 1 million was recorded on real estate held-for-investment in 2020.

Equity securities at measurement alternative

in / end of	2022	Cumulative	2021
Impairments and adjustments (CHF million)			
Impairments and downward adjustments	(12)	(55)	(17)
Upward adjustments	9	147	1

• Refer to “Note 36 – Financial instruments” for further information on such investments.

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19 Loans

The Group's loan portfolio is classified into two portfolio segments, consumer loans and corporate & institutional loans. Consumer loans are disaggregated into the classes of mortgages, loans collateralized by securities and consumer finance. Corporate & institutional loans are disaggregated into the classes of real estate, commercial and industrial loans, financial institutions, and governments and public institutions.

For financial reporting purposes, the carrying values of loans and related allowance for credit losses are presented in accordance with US GAAP and are not comparable with the regulatory credit risk exposures presented in our disclosures required under Pillar 3 of the Basel framework.

Loans

<u>end of</u>	<u>2022</u>	<u>2021</u>
Loans (CHF million)		
Mortgages	107,484	110,533
Loans collateralized by securities	37,639	51,253
Consumer finance	5,701	5,075
Consumer	150,824	166,861
Real estate	25,463	28,529
Commercial and industrial loans	62,057	69,129
Financial institutions	24,700	25,222
Governments and public institutions	2,555	3,323
Corporate & institutional	114,775	126,203
Gross loans	265,599	293,064
of which held at amortized cost	258,241	282,821
of which held at fair value	7,358	10,243
Net (unearned income)/deferred expenses	(71)	(81)
Allowance for credit losses	(1,363)	(1,297)
Net loans	264,165	291,686
Gross loans by location		
Switzerland	163,800	167,957
Foreign	101,799	125,107
Gross loans	265,599	293,064
Impaired loans		
Non-performing loans	1,614	1,666
Non-interest-earning loans	349	298
Non-accrual loans	1,963	1,964
Restructured loans	484	367
Potential problem loans	977	436
Other impaired loans	1,461	803
Gross impaired loans ¹	3,424	2,767

¹ As of December 31, 2022 and 2021, CHF 130 million and CHF 130 million, respectively, were related to consumer mortgages secured by residential real estate for which formal foreclosure proceedings according to local requirements of the applicable jurisdiction were in process.

In accordance with Group policies, impaired loans include non-accrual loans, comprised of non-performing loans and non-interest-earning loans, as well as restructured loans and potential problem loans.

- Refer to “Loans” in Note 1 – Summary of significant accounting policies for further information on loans and categories of impaired loans.
- Refer to “Note 20 – Financial instruments measured at amortized cost and credit losses” for further information on loans held at amortized cost.

20 Financial instruments measured at amortized cost and credit losses

This disclosure provides an overview of the Group's balance sheet positions that include financial assets carried at amortized cost that are subject to the CECL accounting guidance. It includes the following sections:

- Allowance for credit losses (including the methodology for estimating expected credit losses in non-impaired and impaired financial assets and current-period estimates);
- Credit quality information (including monitoring of credit quality and internal ratings);
- Past due financial assets;

- Non-accrual financial assets;
- Collateral-dependent financial assets;
- Off-balance sheet credit exposure; and
- Troubled debt restructurings and modifications.

As of December 31, 2022, the Group had no purchased financial assets with more than insignificant credit deterioration since origination.

- Refer to "Note 1 – Summary of significant accounting policies" for further information on the accounting of financial assets and off-balance sheet credit exposure subject to the CECL accounting guidance.

Overview of financial instruments measured at amortized cost – by balance sheet position

end of	2022			2021		
	Amortized cost basis ¹	Allowance for credit losses	Net carrying value	Amortized cost basis ¹	Allowance for credit losses	Net carrying value
CHF million						
Cash and due from banks	68,280	0	68,280	164,510	0	164,510
Interest-bearing deposits with banks	441 ²	0	441	1,323 ⁴	0	1,323
Securities purchased under resale agreements and securities borrowing transactions	18,005 ²	0	18,005	35,283 ⁴	0	35,283
Debt securities held-to-maturity	921 ²	0	921	0	0	0
Loans	258,170 ^{2,3}	(1,363)	256,807	282,740 ^{4,5}	(1,297)	281,443
Brokerage receivables	17,899	(4,081)	13,818	20,873 ⁴	(4,186)	16,687
Other assets	23,487	(40)	23,447	14,175	(30)	14,145
Total	387,203	(5,484)	381,719	518,904	(5,513)	513,391

1 Net of unearned income/deferred expenses, as applicable.

2 Excluded accrued interest in the total amount of CHF 549 million, with no related allowance for credit losses. Of the accrued interest balance, CHF 1 million related to interest-bearing deposits with banks, CHF 4 million to securities purchased under resale agreements and securities borrowing transactions, CHF 10 million to debt securities held-to-maturity and CHF 534 million to loans. These accrued interest balances are reported in other assets.

3 Included interest of CHF 103 million on non-accrual loans which were reported as part of the loans' amortized cost balance.

4 Excluded accrued interest in the total amount of CHF 301 million, with no related allowance for credit losses. Of the accrued interest balance, CHF 1 million related to interest-bearing deposits with banks, CHF 1 million to securities purchased under resale agreements and securities borrowing transactions, CHF 295 million to loans and CHF 4 million to brokerage receivables. These accrued interest balances are reported in other assets.

5 Included interest of CHF 86 million on non-accrual loans which were reported as part of the loans' amortized cost balance.

Allowance for credit losses

Estimating expected credit losses – overview

The following key elements and processes of estimating expected credit losses apply to the Group's major classes of financial assets held at amortized cost.

Expected credit losses on non-impaired credit exposures

Expected credit loss models for non-impaired credit exposures have three main inputs: (i) PD, (ii) LGD and (iii) EAD. These parameters are derived from internally developed statistical models which are based on historical data and leverage regulatory models under the advanced internal rating-based (A-IRB) approach. Expected credit loss models use forward-looking information to derive point-in-time estimates of forward-looking term structures.

PD estimates are based on statistical rating models and tailored to various categories of counterparties and exposures. These statistical rating models are based on internally and externally compiled data comprising both quantitative and qualitative factors. A migration of a counterparty or exposure between rating classes generally leads to a change in the estimate of the associated PD. Lifetime PDs are estimated considering the expected macroeconomic environment and the contractual maturities of exposures, adjusted for estimated prepayment rates where applicable. Internal credit ratings form a significant input to the model derived CECL PDs. For the majority of counterparties, internal credit ratings are determined via statistical rating models, which are developed under the A-IRB approach of the Basel framework. The models are tailored to the specific business of the respective obligor and are intended to reflect the risk of default over a one-year period of each counterparty. The Group has received approval from its primary regulator to use, and has fully implemented, the A-IRB approach.

LGD estimates the size of the expected loss that may arise on a credit exposure in the event of a default. The Group estimates LGD based on the history of recovery rates of claims against defaulted counterparties, considering, as appropriate, factors such as differences in product structure, collateral type, seniority of the claim, counterparty industry and recovery costs of any collateral that is integral to the financial asset. Certain LGD values are also calibrated to reflect the expected macroeconomic environment.

EAD represents the expected amount of credit exposure in the event of a default. It reflects the current drawn exposure with a counterparty and an expectation regarding the future evolution of the credit exposure under the contract or facility, including amortization and prepayments. The EAD of a financial asset is the gross carrying amount at default, which is modeled based on historical data by applying a term structure and considering portfolio-specific factors such as the drawn amount as of the reporting date, the facility limit, amortization schedules, financial collateral and product type. For certain financial assets, the Group determines EAD by modeling the range of possible exposure outcomes at various points in time using scenario and statistical techniques.

Where a relationship to macroeconomic indicators is statistically sound and in line with economic expectations, the parameters are modeled accordingly, incorporating the Group's forward-looking forecasts and applying regional segmentations where appropriate.

The ability to forecast credit losses over the reasonable and supportable period is based on the ability to forecast economic activity over a reasonable and supportable time window. The Group's macroeconomic and market variable forecasts for the CECL scenarios cover a five-year time horizon. For periods beyond that reasonable and supportable forecast period, the Group immediately reverts to average economic environment variables as model input factors. In the downside and upside scenarios, mean reversion to the base case projected paths will commence in year three, with full convergence occurring in years four and five for certain macroeconomic factors.

Alternative qualitative estimation approaches are used for certain products. For lombard loans (including share-backed loans), the PD/LGD approach used does not consider the Group's forward-looking forecasts as these are not meaningful for the estimate of expected credit losses in light of the short time-frame considered for closing out positions under daily margining arrangements. For international private residential mortgages and securitizations, the Group applies qualitative approaches where credit specialists follow a structured process and use their expertise and judgment to determine the amounts of expected credit losses.

The Group measures expected credit losses considering the risk of default over the maximum contractual period (including any borrower's extension options) during which it is exposed to credit risk, even if the Group considers a longer period for risk management purposes. The maximum contractual period extends to the date at which the Group has the right to require repayment of an

advance or terminate an irrevocable loan commitment or a credit guarantee.

Expected credit losses on impaired credit exposures

Expected credit losses for individually impaired credit exposures are measured by performing an in-depth review and analysis of these exposures, considering factors such as recovery and exit options as well as collateral and the risk profile of the borrower. The individual measurement of expected credit losses for impaired financial assets also considers reasonable and supportable forward-looking information that is relevant to the individual counterparty (idiosyncratic information) and reflective of the macroeconomic environment that the borrower is exposed to, apart from any historical loss information and current conditions. If there are different scenarios relevant for the individual expected credit loss measurement, they are considered on a probability-weighted basis. The related allowance for credit losses is revalued by the recovery management function, at least annually or more frequently, depending on the risk profile of the borrower or credit-relevant events.

For credit-impaired financial assets, the expected credit loss is measured using (i) the present value of estimated future cash flows discounted at the contractual interest rate of the loan and (ii) the fair market value of collateral where the loan is collateral-dependent. The impaired credit exposures and related allowance are revalued to reflect the passage of time.

For all classes of financial assets, the trigger to detect an impaired credit exposure is non-payment of interest, principal amounts or other contractual payment obligations, or when, for example, the Group may become aware of specific adverse information relating to a counterparty's ability to meet its contractual obligations, despite the current repayment status of its particular credit facility. For credit exposures where repayment is dependent on collateral, a decrease in collateral values can be an additional trigger to detect an impairment. Additional procedures may apply to specific classes of financial assets as described further below.

Troubled debt restructurings, also referred to as restructured loans, are considered impaired credit exposures in line with the Group's policies and subject to individual assessment and provisioning for expected credit losses by the Group's recovery functions. Restructured loans that defaulted again within 12 months from the last restructuring remain impaired or are impaired if they were considered non-impaired at the time of the subsequent default.

Macroeconomic scenarios

The estimation and application of forward-looking information requires quantitative analysis and significant expert judgment. The Group's estimation of expected credit losses is based on a discounted probability-weighted estimate that considers three future macroeconomic scenarios: a baseline scenario, an upside scenario and a downside scenario. The baseline scenario represents the most likely outcome. The two other scenarios represent more optimistic and more pessimistic outcomes, with the downside

scenario being more severe than the upside scenario. The scenarios are probability-weighted according to the Group's best estimate of their relative likelihood based on historical frequency, an assessment of the current business and credit cycles as well as the macroeconomic factor trends.

The scenario design team within the Group's Enterprise Risk Management (ERM) function determines the macroeconomic factors (MEFs) and market projections that are relevant for the Group's three scenarios across the overall credit portfolio subject to the CECL accounting guidance. The scenario design team formulates the baseline scenario projections used for the calculation of expected credit losses from the Group's global chief investment office in-house economic research forecasts and, where deemed appropriate, from external sources such as the Bloomberg consensus of economist forecasts (covering the views of other investment banks and external economic consultancies), forecasts from nonpartisan think tanks, major central banks and multilateral institutions, such as the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD) and the World Bank. For factors where no in-house or credible external forecasts are available, an internal model is used to calibrate the baseline scenario projections. The downside and upside scenarios are derived from these baseline scenario projections. These three scenario projections are subject to a review and challenge process and any feedback from this process is incorporated into the scenario projections by the ERM scenario design team. The CECL scenario design working group is the governance forum. The working group performs an additional review and challenge and subsequently recommends approval of the MEFs and related market projections as well as the occurrence probability weights that are allocated to the baseline, downside and upside scenarios. MEFs and related market projections as well as the scenario occurrence probability weights used for the calculation of expected credit losses are approved by the Senior Management Approval Committee.

Current-period estimate of expected credit losses on non-impaired credit exposures

One of the most significant judgments involved in estimating the Group's allowance for credit losses relates to the macroeconomic forecasts used to estimate credit losses over the forecast period, with modeled credit losses being driven primarily by a set of 37 MEFs. The key MEFs used in each of the macroeconomic scenarios for the calculation of the expected credit losses include, but are not limited to, GDP and industrial production growth rates. These MEFs are used in the portfolio- and region-specific CECL models and have been selected based on statistical criteria and expert judgment to explain expected credit losses. The table "Selected macroeconomic factors" includes the Group's forecast of selected MEFs for 2023 and 2024, as estimated as of December 31, 2022. The comparative information includes the forecast of MEFs selected and estimated as of December 31, 2021.

As of December 31, 2022, the forecast macroeconomic scenarios were weighted 50% for the baseline, 40% for the downside and 10% for the upside scenario, unchanged compared to the scenario weightings applicable as of December 31, 2021. The MEFs included in the table represent the four-quarter average forecasts for 2023 and 2024 at the end of each reporting period. These MEFs forecasts are recalibrated on a monthly basis and certain CECL models consume data with a time lag or are influenced by statistical base effects from an earlier period. The quarterly series for China real GDP and world industrial production returned to pre-pandemic levels (i.e., the fourth quarter of 2019) in the second and third quarter of 2020, respectively, while the quarterly series for US real GDP returned to pre-pandemic levels in the first quarter of 2021. The quarterly series for Swiss nominal GDP and EU nominal GDP returned to pre-pandemic levels in the second quarter of 2021, based on the latest published statistical data available. The macroeconomic and market variable projections incorporate adjustments to reflect the impact of accelerated monetary policy tightening by the world's major central banks in response to high inflation rates, the impact of Russia's invasion of Ukraine on energy and food prices as well as the macroeconomic impact of the property sector slowdown in China. While GDP and industrial production growth rates are significant inputs to the forecast models, a range of other inputs are also incorporated for all three scenarios to provide projections for future economic and market conditions. Given the complex nature of the forecasting process, no single economic variable is viewed in isolation or independently of other inputs.

Selected macroeconomic factors

December 31, 2022	Forecast 2023	Forecast 2024
US real GDP growth rate (%)		
Downside	(1.7)	0.5
Baseline	0.9	1.5
Upside	1.2	2.0
World industrial production (%)		
Downside	(6.8)	0.4
Baseline	1.2	1.9
Upside	3.9	3.9
China real GDP growth rate (%)		
Downside	(0.9)	2.1
Baseline	4.5	4.9
Upside	6.2	5.8
EU nominal GDP growth rate (%)		
Downside	3.4	2.3
Baseline	5.2	4.1
Upside	5.5	3.8
Swiss nominal GDP growth rate (%)		
Downside	0.0	1.0
Baseline	2.7	2.0
Upside	3.2	2.1

Forecasts represent the four-quarter average estimate of the respective macroeconomic factor as determined at the end of each reporting period.

Selected macroeconomic factors (continued)

December 31, 2021	Forecast 2022	Forecast 2023
Swiss real GDP growth rate (%)		
Downside	(0.4)	0.3
Baseline	2.5	1.9
Upside	4.3	2.8
Eurozone real GDP growth rate (%)		
Downside	(0.7)	1.4
Baseline	3.8	2.3
Upside	4.2	2.7
US real GDP growth rate (%)		
Downside	0.1	1.4
Baseline	3.8	1.9
Upside	4.5	2.4
UK real GDP growth rate (%)		
Downside	(0.9)	1.0
Baseline	5.0	3.3
Upside	7.8	3.9
World industrial production (%)		
Downside	0.0	2.0
Baseline	3.0	3.0
Upside	4.4	3.7

Forecasts represent the four-quarter average estimate of the respective macroeconomic factor as determined at the end of each reporting period.

Expected credit losses are not solely derived from MEF projections. Model overlays based on expert judgment are also applied, considering historical loss experience and industry and counter-party reviews, and primarily impacting certain corporate and institutional loans portfolios. Such overlays are designed to address circumstances where in management's judgment the CECL model outputs are overly sensitive to the effect of economic inputs that exhibit significant deviation from their long-term historical averages. Overlays may also be used to capture judgment on the economic uncertainty from global or regional developments with severe impacts on economies. The Group's non-specific allowance for expected credit losses on balance sheet and off-balance sheet credit exposures as of December 31, 2022 decreased compared to December 31, 2021. Model overlays were recalibrated during the year to take into account updated input elements based on expert judgment which led to a release. This release of overlays was outweighing the impact of additional stress from macroeconomic factors observable during the year. Overlays continued to be closely aligned with the macroeconomic forecasts and associated scenario weightings.

Interest income attributable to passage of time

For financial assets held at amortized cost for which the Group measures expected credit losses based on the discounted cash flow methodology the entire change in present value is reported in provision for credit losses.

Loans held at amortized cost

The Group's loan portfolio is classified into two portfolio segments, consumer loans and corporate & institutional loans. The main risk characteristics are described by individual class of financing receivable for each of these portfolio segments:

Consumer loans:

- **Mortgages:** includes lending instruments secured by residential real estate; such credit exposure is sensitive to the level of interest rates and unemployment as well as real estate valuation.
- **Loans collateralized by securities:** primarily includes lending secured by marketable financial collateral (e.g., equities, bonds, investment funds and precious metals); such credit exposure is sensitive to market prices for securities which impact the value of financial collateral.
- **Consumer finance:** includes lending to private individuals such as credit cards, personal loans and leases; such credit exposure is sensitive to MEFs including economic growth, unemployment and interest rates.

Corporate & institutional loans:

- **Real estate:** includes lending backed by commercial or income-producing real estate; such credit exposure is sensitive to MEFs including economic growth, unemployment, interest rates and industrial production as well as real estate valuation.
- **Commercial and industrial loans:** includes lending to corporate clients including small and medium-sized enterprises, large corporates and multinational clients; such credit exposure is sensitive to MEFs including economic growth, unemployment and industrial production.
- **Financial institutions:** includes lending to financial institutions such as banks and insurance companies; such credit exposure is sensitive to MEFs including economic growth.
- **Governments and public institutions:** includes lending to central government and state-owned enterprises; such credit exposure is sensitive to MEFs including economic growth.

Expected credit losses on impaired loans

In addition to the triggers described further above, loans managed on the Swiss platform are reviewed depending on event-driven developments. All corporate and institutional loans are reviewed at least annually based on the borrower's financial statements and any indications of difficulties they may experience. Loans that are not impaired, but which are of special concern due to changes in covenants, downgrades, negative financial news and other adverse developments, are either transferred to recovery management or included on a watch list. All loans on the watch list are reviewed at least quarterly to determine whether they should be released, remain on the watch list or be moved to recovery management. For loans in recovery management from the Swiss platform, larger positions are reviewed on a quarterly basis for any event-driven changes. Otherwise, these loans are reviewed at least annually. All loans in recovery management on international platforms are reviewed on at least a monthly basis.

Allowance for credit losses – loans held at amortized cost

	2022			2021			2020		
	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total
Allowance for credit losses (CHF million) Balance at beginning of period	357	940	1,297	318	1,218	1,536	241	808	1,049¹
Current-period provision for expected credit losses	55	184	239	78	(53)	25	191	709	900
of which methodology changes	0	0	0	0	(1)	(1)	0	(19)	(19)
of which provisions for interest ²	22	29	51	25	23	48	22	15	37
Gross write-offs	(65)	(116)	(181)	(55)	(242)	(297)	(87)	(238)	(325)
Recoveries	12	3	15	9	5	14	8	5	13
Net write-offs	(53)	(113)	(166)	(46)	(237)	(283)	(79)	(233)	(312)
Foreign currency translation impact and other adjustments, net	0	(7)	(7)	7	12	19	(35)	(66)	(101)
Balance at end of period	359	1,004	1,363	357	940	1,297	318	1,218	1,536
of which individually evaluated	273	572	845	273	512	785	230	636	866
of which collectively evaluated	86	432	518	84	428	512	88	582	670

- 1 Included a net impact of CHF 103 million from the adoption of the new CECL guidance and the related election of the fair value option for certain loans on January 1, 2020, of which CHF 55 million was reflected in consumer loans and CHF 48 million in corporate & institutional loans.
- 2 Represents the current-period net provision for accrued interest on non-accrual loans and lease financing transactions which is recognized as a reversal of interest income.

Gross write-offs of CHF 181 million in 2022 compared to gross write-offs of CHF 297 million in 2021 and were primarily related to corporate & institutional loans in both years. In 2022, gross write-offs in corporate & institutional loans reflected the sale of a facility relating to a coal mining company and write-offs of a loan to a consulting services company, an exposure to a financial institution impacted by sanctions imposed in connection with Russia's invasion of Ukraine and individual positions in

small and medium-sized enterprises, Swiss large corporates and ship finance. Write-offs in consumer loans were mainly related to Swiss consumer finance loans and a European mortgage. In 2021, gross write-offs in corporate & institutional loans were mainly related to positions in commodity trade finance, ship finance, corporate lending, the sale of a real estate-related loan and a position in the US health care sector. Write-offs in consumer loans were mainly related to consumer finance.

Purchases, reclassifications and sales – loans held at amortized cost

in	2022			2021			2020		
	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total
CHF million									
Purchases ¹	17	4,603	4,620	22	4,361	4,383	45	2,756	2,801
Reclassifications from loans held-for-sale ²	0	95	95	0	133	133	0	6	6
Reclassifications to loans held-for-sale ³	0	9,516	9,516	0	4,780	4,780	18	2,007	2,025
Sales ³	0	2,485	2,485	0	4,442	4,442	18	1,626	1,644

Reclassifications from loans held-for-sale and reclassifications to loans held-for-sale represent non-cash transactions.

- 1 Includes drawdowns under purchased loan commitments.
- 2 Reflects loans previously reclassified to held-for-sale that were not sold and were reclassified back to loans held at amortized cost.
- 3 All loans held at amortized cost which are sold are reclassified to loans held-for-sale on or prior to the date of the sale.

Debt securities held-to-maturity

In 2022, the Group purchased foreign government debt securities held-to-maturity amounting to CHF 971 million, all related to a portfolio of US Treasury securities.

The Group's debt securities held-to-maturity with a carrying value of CHF 921 million as of December 31, 2022 represent a portfolio of US Treasury securities, all rated "AAA" based on the Group's internal counterparty rating. US Treasury securities have a history of no credit losses and market price movements mainly reflect changes in market interest rates. Based on this history of no credit losses and the Group's view of the current and forecasted economic environment, the Group expects the risk of non-payment for US Treasuries to be zero and does not have an allowance for credit losses for these securities. The credit quality of these securities is monitored on an ongoing basis and the Group's zero-loss expectation is validated on at least a quarterly basis through the Group's governance structure involving the Credit Risk and Treasury functions.

- Refer to "Note 17 – Investment securities" for further information.

Other financial assets

- The Group's other financial assets include certain balance sheet positions held at amortized cost, each representing its own portfolio segment. They have the following risk characteristics:
- Cash and due from banks and interest-bearing deposits with banks: includes balances held with banks, primarily cash balances with central banks and nostro accounts; such credit exposure is sensitive to the credit rating and profile of the bank or central bank. Cash and due from banks also includes short-term, highly liquid debt instruments with original maturities of three months or less, which are held for cash management purposes; such credit exposure is sensitive to the credit rating and profile of the issuer of the related instrument.
- Reverse repurchase agreements and securities borrowing transactions: includes lending and borrowing of securities against cash or other financial collateral; such credit exposure is sensitive to the credit rating and profile of the counterparty

and relative changes in the valuation of securities and financial collateral.

- Brokerage receivables: includes mainly settlement accounts with brokers and margin accounts; such credit exposure is sensitive to the credit rating and profile of the counterparty.
- Other assets: includes mainly cash collateral, accrued interest, fees receivable, mortgage servicing advances and failed purchases; such credit exposure is sensitive to the credit rating and profile of the related counterparty.

Allowance for credit losses – other financial assets held at amortized cost

	2022	2021	2020
Allowance for credit losses (CHF million)			
Balance at beginning of period	4,216	55	45
Current-period provision for expected credit losses	(132)	4,291	24
Gross write-offs	(8)	(9)	(12)
Recoveries	0	0	2
Net write-offs	(8)	(9)	(10)
Foreign currency translation impact and other adjustments, net	45	(121)	(4)
Balance at end of period	4,121	4,216	55
of which individually evaluated	4,099	4,202	17
of which collectively evaluated	22	14	38

The current-period provision for expected credit losses on other financial assets held at amortized cost included a release of CHF 155 million in 2022 and a provision of CHF 4,307 million in 2021 related to Archegos Capital Management (Archegos). As of December 31, 2022 and 2021, the allowance for credit losses on brokerage receivables of CHF 4,081 million and CHF 4,186 million, respectively, were primarily related to Archegos.

In 2022 and 2021, the Group purchased other financial assets held at amortized cost amounting to CHF 931 million and CHF 196 million, respectively, primarily related to mortgage servicing advances.

Credit quality information

Monitoring of credit quality and internal ratings – Overview

The Group monitors the credit quality of financial assets held at amortized cost through its credit risk management framework, which provides for the consistent evaluation, measurement and management of credit risk across the Group. Assessments of credit risk exposures for internal risk estimates and risk-weighted assets are calculated based on PD, LGD and EAD models.

- Refer to “Expected credit losses on non-impaired credit exposures” for further information on PD, LGD and EAD.

The credit risk management framework incorporates the following core elements:

- Counterparty and transaction assessments: application of internal credit ratings (using PD), assignment of LGD and EAD values in relation to counterparties and transactions;
- Credit limits: establishment of credit limits, including limits based on notional exposure, potential future exposure and stress exposure, subject to approval by delegated authority holders, to serve as primary risk controls on exposures and to prevent undue risk concentrations;
- Credit monitoring, impairments and provisions: processes to support the ongoing monitoring and management of credit exposures, supporting the early identification of deterioration and any subsequent impact; and
- Risk mitigation: active management of risk mitigation provided in relation to credit exposures, including through the use of cash sales, participations, collateral or guarantees or hedging instruments.

In addition to traditional credit exposure measurement, monitoring and management using current and potential future exposure metrics, Credit Risk performs counterparty and portfolio credit risk assessments of the impact of various internal stress test scenarios. Credit Risk assesses the impact to credit risk exposures arising from market movements in accordance with the scenario narrative, which can further support the identification of concentration or tail risks. The scenario suite includes historical scenarios as well as forward-looking scenarios which are used across the Risk function.

Credit Risk evaluates and assesses counterparties and clients to whom the Group has credit exposures, primarily using internal rating models. Credit Risk uses these models to determine internal credit ratings which are intended to reflect the PD of each counterparty.

For a majority of counterparties and clients, internal ratings are based on internally developed statistical models that have been backtested against internal experience and validated by a function independent of model development. Findings from back-testing serve as a key input for any future rating model developments. The Group’s internally developed statistical rating models are based on a combination of quantitative factors (e.g., financial

fundamentals, such as balance sheet information for corporates and loan-to-value (LTV) ratio and the borrower’s income level for mortgage lending, and market data) and qualitative factors (e.g., credit histories from credit reporting bureaus and economic trends).

For the remaining counterparties where statistical rating models are not used, internal credit ratings are assigned on the basis of a structured expert approach using a variety of inputs, such as peer analyses, industry comparisons, external ratings and research as well as the judgment of senior credit officers.

In addition to counterparty ratings, Credit Risk also assesses the risk profile of individual transactions and assigns transaction ratings which reflect specific contractual terms such as seniority, security and collateral.

Internal credit ratings may differ from external credit ratings, where available, and are subject to periodic review depending on exposure type, client segment, collateral or event-driven developments. The Group’s internal ratings are mapped to a PD band associated with each rating which is calibrated to historical default experience using internal data and external data sources. The Group’s internal rating bands are reviewed on an annual basis with reference to extended historical default data and are therefore based on stable long-run averages. Adjustments to PD bands are only made where significant deviations to existing values are detected. The last update was made in 2012 and since then no significant changes to the robust long-run averages have been detected.

For the purpose of the credit quality disclosures included in these financial statements, an equivalent rating based on the Standard & Poor’s rating scale is assigned to the Group’s internal ratings based on the PD band associated with each rating. These internal ratings are used consistently across all classes of financial assets and are aggregated to the credit quality indicators “investment grade” and “non-investment grade”.

The Group uses internal rating methodologies consistently for the purposes of approval, establishment and monitoring of credit limits and credit portfolio management, credit policy, management reporting, risk-adjusted performance measurement, economic risk capital measurement and allocation and financial accounting.

A credit quality monitoring process is performed to provide for early identification of possible changes in the creditworthiness of clients and includes regular asset and collateral quality reviews, business and financial statement analysis and relevant economic and industry studies. Credit Risk maintains regularly updated watch lists and holds review meetings to re-assess counterparties that could be subject to adverse changes in creditworthiness. The review of the credit quality of clients and counterparties does not depend on the accounting treatment of the asset or commitment.

- Refer to “Expected credit losses on impaired credit exposures” for further information on credit monitoring.

Credit quality of loans held at amortized cost

The following table presents the Group's carrying value of loans held at amortized cost by aggregated internal counterparty credit ratings "investment grade" and "non-investment grade" that are used as credit quality indicators for the purpose of this disclosure,

by year of origination. Within the line items relating to the origination year, the first year represents the origination year of the current reporting period and the second year represents the origination year of the comparative reporting period.

Consumer loans held at amortized cost by internal counterparty rating

end of	2022				2021			
	Investment grade	Non-investment grade		Total	Investment grade	Non-investment grade		Total
	AAA to BBB	BB to C	D		AAA to BBB	BB to C	D	
CHF million								
Mortgages								
2022 / 2021	12,501	1,540	8	14,049	24,257	2,134	40	26,431
2021 / 2020	21,627	1,396	45	23,068	14,743	1,402	13	16,158
2020 / 2019	12,869	1,111	19	13,999	11,308	1,639	48	12,995
2019 / 2018	10,029	1,271	67	11,367	7,287	812	88	8,187
2018 / 2017	6,609	650	36	7,295	5,318	698	74	6,090
Prior years	34,525	1,931	210	36,666	36,790	2,359	317	39,466
Total term loans	98,160	7,899	385	106,444	99,703	9,044	580	109,327
Revolving loans	229	807	4	1,040	276	930	0	1,206
Total	98,389	8,706	389	107,484	99,979	9,974	580	110,533
Loans collateralized by securities								
2022 / 2021	562	552	0	1,114	2,627	685	0	3,312
2021 / 2020	1,496	381	0	1,877	649	848	0	1,497
2020 / 2019	307	721	0	1,028	61	167	0	228
2019 / 2018	35	143	0	178	32	26	106	164
2018 / 2017	16	25	0	41	55	19	0	74
Prior years	803	188	0	991	804	681	0	1,485
Total term loans	3,219	2,010	0	5,229	4,228	2,426	106	6,760
Revolving loans ¹	30,023	2,124	263	32,410	41,275	3,063	155	44,493
Total	33,242	4,134	263	37,639	45,503	5,489	261	51,253
Consumer finance								
2022 / 2021	2,135	1,005	8	3,148	1,688	823	5	2,516
2021 / 2020	650	334	15	999	538	288	15	841
2020 / 2019	307	200	15	522	285	234	19	538
2019 / 2018	120	183	18	321	98	169	18	285
2018 / 2017	26	87	15	128	21	75	13	109
Prior years	14	80	44	138	13	76	43	132
Total term loans	3,252	1,889	115	5,256	2,643	1,665	113	4,421
Revolving loans	318	42	69	429	348	21	90	459
Total	3,570	1,931	184	5,685	2,991	1,686	203	4,880
Consumer – total								
2022 / 2021	15,198	3,097	16	18,311	28,572	3,642	45	32,259
2021 / 2020	23,773	2,111	60	25,944	15,930	2,538	28	18,496
2020 / 2019	13,483	2,032	34	15,549	11,654	2,040	67	13,761
2019 / 2018	10,184	1,597	85	11,866	7,417	1,007	212	8,636
2018 / 2017	6,651	762	51	7,464	5,394	792	87	6,273
Prior years	35,342	2,199	254	37,795	37,607	3,116	360	41,083
Total term loans	104,631	11,798	500	116,929	106,574	13,135	799	120,508
Revolving loans	30,570	2,973	336	33,879	41,899	4,014	245	46,158
Total	135,201	14,771	836	150,808	148,473	17,149	1,044	166,666

¹ Lombard loans are generally classified as revolving loans.

Corporate & institutional loans held at amortized cost by internal counterparty rating

end of	2022				2021			
	Investment grade		Non-investment grade		Investment grade		Non-investment grade	
	AAA to BBB	BB to C	D	Total	AAA to BBB	BB to C	D	Total
CHF million								
Real estate								
2022 / 2021	3,601	2,499	5	6,105	9,568	4,682	2	14,252
2021 / 2020	7,001	2,441	0	9,442	3,709	1,355	5	5,069
2020 / 2019	3,071	855	4	3,930	1,849	706	2	2,557
2019 / 2018	959	297	56	1,312	925	340	1	1,266
2018 / 2017	698	219	1	918	475	101	0	576
Prior years	2,109	217	24	2,350	2,469	376	30	2,875
Total term loans	17,439	6,528	90	24,057	18,995	7,560	40	26,595
Revolving loans	694	281	125	1,100	778	297	135	1,210
Total	18,133	6,809	215	25,157	19,773	7,857	175	27,805
Commercial and industrial loans								
2022 / 2021	7,858	11,181	263	19,302	8,284	11,985	136	20,405
2021 / 2020	3,576	4,204	212	7,992	3,242	4,468	62	7,772
2020 / 2019	1,810	2,251	178	4,239	2,110	3,903	105	6,118
2019 / 2018	1,566	2,359	130	4,055	1,003	2,256	177	3,436
2018 / 2017	742	1,343	161	2,246	697	937	60	1,694
Prior years	1,619	2,355	214	4,188	2,013	2,848	90	4,951
Total term loans	17,171	23,693	1,158	42,022	17,349	26,397	630	44,376
Revolving loans	10,277	6,799	278	17,354	13,941	7,458	372	21,771
Total	27,448	30,492	1,436	59,376	31,290	33,855	1,002	66,147
Financial institutions								
2022 / 2021	4,482	1,026	90	5,598	6,360	2,012	51	8,423
2021 / 2020	2,850	856	0	3,706	2,081	201	30	2,312
2020 / 2019	1,034	67	0	1,101	660	127	1	788
2019 / 2018	602	7	0	609	522	151	1	674
2018 / 2017	521	2	1	524	87	19	0	106
Prior years	(940)	71	1	(868)	499	85	1	585
Total term loans	8,549	2,029	92	10,670	10,209	2,595	84	12,888
Revolving loans	10,111	822	110	11,043	7,542	485	1	8,028
Total	18,660	2,851	202	21,713	17,751	3,080	85	20,916
Governments and public institutions								
2022 / 2021	147	22	0	169	521	26	0	547
2021 / 2020	458	35	0	493	157	114	0	271
2020 / 2019	126	40	0	166	94	19	19	132
2019 / 2018	97	1	10	108	46	11	0	57
2018 / 2017	55	0	0	55	28	0	0	28
Prior years	171	15	1	187	199	21	0	220
Total term loans	1,054	113	11	1,178	1,045	191	19	1,255
Revolving loans	9	0	0	9	32	0	0	32
Total	1,063	113	11	1,187	1,077	191	19	1,287
Corporate & institutional – total								
2022 / 2021	16,088	14,728	358	31,174	24,733	18,705	189	43,627
2021 / 2020	13,885	7,536	212	21,633	9,189	6,138	97	15,424
2020 / 2019	6,041	3,213	182	9,436	4,713	4,755	127	9,595
2019 / 2018	3,224	2,664	196	6,084	2,496	2,758	179	5,433
2018 / 2017	2,016	1,564	163	3,743	1,287	1,057	60	2,404
Prior years	2,959	2,658	240	5,857	5,180	3,330	121	8,631
Total term loans	44,213	32,363	1,351	77,927	47,598	36,743	773	85,114
Revolving loans	21,091	7,902	513	29,506	22,293	8,240	508	31,041
Total	65,304	40,265	1,864	107,433	69,891	44,983	1,281	116,155

Total loans held at amortized cost by internal counterparty rating

end of	2022				2021			
	Investment grade	Non-investment grade		Total	Investment grade	Non-investment grade		Total
	AAA to BBB	BB to C	D		AAA to BBB	BB to C	D	
CHF million								
Loans held at amortized cost – total								
2022 / 2021	31,286	17,825	374	49,485	53,305	22,347	234	75,886
2021 / 2020	37,658	9,647	272	47,577	25,119	8,676	125	33,920
2020 / 2019	19,524	5,245	216	24,985	16,367	6,795	194	23,356
2019 / 2018	13,408	4,261	281	17,950	9,913	3,765	391	14,069
2018 / 2017	8,667	2,326	214	11,207	6,681	1,849	147	8,677
Prior years	38,301	4,857	494	43,652	42,787	6,446	481	49,714
Total term loans	148,844	44,161	1,851	194,856	154,172	49,878	1,572	205,622
Revolving loans	51,661	10,875	849	63,385	64,192	12,254	753	77,199
Total	200,505	55,036	2,700	258,241 ¹	218,364	62,132	2,325	282,821 ¹

¹ Excluded accrued interest on loans held at amortized cost of CHF 534 million and CHF 295 million as of December 31, 2022 and 2021, respectively.

Credit quality of other financial assets held at amortized cost

The following table presents the Group's carrying value of other financial assets held at amortized cost by aggregated internal counterparty credit ratings "investment grade" and

"non-investment grade", by year of origination. Within the line items relating to the origination year, the first year represents the origination year of the current reporting period and the second year represents the origination year of the comparative reporting period.

Other financial assets held at amortized cost by internal counterparty rating

end of	2022				2021			
	Investment grade	Non-investment grade		Total	Investment grade	Non-investment grade		Total
	AAA to BBB	BB to C	D		AAA to BBB	BB to C	D	
CHF million								
Other financial assets held at amortized cost								
2022 / 2021	0	0	0	0	0	5	0	5
2021 / 2020	0	7	0	7	0	0	0	0
2020 / 2019	0	0	0	0	0	0	0	0
2019 / 2018	0	0	0	0	0	63	0	63
2018 / 2017	0	47	0	47	0	2	0	2
Prior years	0	0	0	0	0	2	0	2
Total term positions	0	54	0	54	0	72	0	72
Revolving positions	0	1,711	0	1,711	0	970	0	970
Total	0	1,765	0	1,765	0	1,042	0	1,042

Includes primarily mortgage servicing advances and failed purchases.

Past due financial assets

Generally, a financial asset is deemed past due if the principal and/or interest payment has not been received on its due date.

Loans held at amortized cost – past due

end of	Current	Past due				Total	Total
		Up to 30 days	31–60 days	61–90 days	More than 90 days		
2022 (CHF million)							
Mortgages	107,033	66	43	8	334	451	107,484
Loans collateralized by securities	37,308	43	4	3	281	331	37,639
Consumer finance	5,147	248	82	63	145	538	5,685
Consumer	149,488	357	129	74	760	1,320	150,808
Real estate	24,946	35	49	0	127	211	25,157
Commercial and industrial loans	58,267	320	42	24	723	1,109	59,376
Financial institutions	21,482	72	0	0	159	231	21,713
Governments and public institutions	1,171	5	0	0	11	16	1,187
Corporate & institutional	105,866	432	91	24	1,020	1,567	107,433
Total loans held at amortized cost	255,354	789	220	98	1,780	2,887	258,241 ¹
2021 (CHF million)							
Mortgages	109,877	123	73	61	399	656	110,533
Loans collateralized by securities	51,069	42	0	0	142	184	51,253
Consumer finance	4,449	144	70	60	157	431	4,880
Consumer	165,395	309	143	121	698	1,271	166,666
Real estate	27,628	6	4	0	167	177	27,805
Commercial and industrial loans	65,327	166	13	12	629	820	66,147
Financial institutions	20,807	60	7	1	41	109	20,916
Governments and public institutions	1,252	16	0	0	19	35	1,287
Corporate & institutional	115,014	248	24	13	856	1,141	116,155
Total loans held at amortized cost	280,409	557	167	134	1,554	2,412	282,821 ¹

¹ Excluded accrued interest on loans held at amortized cost of CHF 534 million and CHF 295 million as of December 31, 2022 and 2021, respectively.

As of December 31, 2022 and 2021, the Group did not have any loans that were more than 90 days past due and still accruing interest. Also, the Group did not have any debt securities held-to-maturity or other financial assets held at amortized cost that were past due.

Non-accrual financial assets

Overview

Generally, a financial asset is deemed non-accrual and recognition of any interest in the statement of operations is discontinued when the contractual payments of principal and/or interest are more than 90 days past due.

Payments collected on non-accrual financial assets are accounted for using the cash basis or the cost recovery method or a combination of both.

Generally, non-accrual financial assets may be restored to performing status only when delinquent principal and interest are brought up to date in accordance with the terms of the contractual arrangement and when certain performance criteria are met.

- Refer to “Note 1 – Summary of significant accounting policies” for further information on the recognition of write-offs of financial assets and related recoveries.

For loans held at amortized cost, non-accrual loans are comprised of non-performing loans and non-interest-earning loans.

Non-accrual loans held at amortized cost

	2022				2021			
	Amortized cost of non-accrual assets at beginning of period	Amortized cost of non-accrual assets at end of period	Interest income recognized	Amortized cost of non-accrual assets with no specific allowance at end of period	Amortized cost of non-accrual assets at beginning of period	Amortized cost of non-accrual assets at end of period	Interest income recognized	Amortized cost of non-accrual assets with no specific allowance at end of period
CHF million								
Mortgages	572	383	4	64	418	572	2	111
Loans collateralized by securities	262	283	4	2	105	262	8	2
Consumer finance	205	188	3	8	201	205	3	1
Consumer	1,039	854	11	74	724	1,039	13	114
Real estate	167	127	1	1	324	167	6	0
Commercial and industrial loans	698	812	9	30	925	698	11	96
Financial institutions	41	159	7	0	68	41	0	0
Governments and public institutions	19	11	1	0	0	19	0	0
Corporate & institutional	925	1,109	18	31	1,317	925	17	96
Total loans held at amortized cost	1,964	1,963	29	105	2,041	1,964	30	210

In the Group's recovery management function covering the Investment Bank and parts of Wealth Management, once the credit provision is greater than 90% of the loan's notional amount, a position may be written down to its net carrying value in the subsequent quarter if all recovery options are exhausted. In the Group's recovery management functions for the Swiss Bank and the remaining parts of Wealth Management, write-offs are made based on an individual counterparty assessment. An evaluation is performed on the need for write-offs on impaired loans individually and on an ongoing basis if it is likely that parts of a loan or the entire loan will not be recoverable. Write-offs of residual loan balances are executed once available debt enforcement procedures are exhausted or, in certain cases, upon a restructuring.

Collateral-dependent financial assets

The Group's collateral-dependent financial assets are managed by a global recovery management function which is divisionally aligned to cover the Investment Bank, Wealth Management and the Swiss Bank.

Collateral-dependent financial assets managed by the recovery management function covering the Investment Bank and parts of Wealth Management mainly include mortgages (including aircraft mortgages), revolving corporate loans, securities borrowing, trade finance exposures and lombard loans. For mortgages, property, aircraft, guarantees and life insurance policies are the main collateral types. For revolving corporate loans, collateral includes mainly cash, inventory, oil and gas reserves and receivables. Securities borrowing exposures are mainly secured by pledged shares, bonds, investment fund units and money market instruments. Trade finance exposures are secured by cash and guarantees. For lombard loans, the Group holds collateral in the form of pledged shares, bonds, investment fund units and money market

instruments as well as cash and life insurance policies. The overall collateral coverage ratio increased from 92% as of December 31, 2021 to 94% as of December 31, 2022, mainly driven by newly impaired highly collateralized securitization exposures relating to aircraft companies.

Collateral-dependent financial assets managed by the recovery management function for the remaining parts of Wealth Management mainly include ship finance exposures, commercial loans, lombard loans, residential mortgages as well as aviation and yacht finance exposures. Ship finance exposures are collateralized by vessel mortgages, corporate guarantees, insurance assignments as well as cash balances, securities deposits or other assets held with the Group. Collateral held against commercial loans include primarily guarantees issued by export credit agencies, other guarantees, private risk insurance, asset pledges and assets held with the Group (e.g., cash, securities deposits and others). Lombard loans are collateralized by pledged financial assets mainly in the form of cash, shares, bonds, investment fund units and money market instruments as well as life insurance policies and bank guarantees. Residential mortgages are secured by mortgage notes on residential real estate, life insurance policies as well as cash balances, securities deposits or other assets held with the Group. Aviation and yacht finance exposures are collateralized by aircraft mortgages of business jets and vessel mortgages on yachts, respectively, as well as corporate and/or personal guarantees, cash balances, securities deposits or other assets held with the Group. Collateral-dependent loans increased in 2022, mainly driven by increases in export finance, yacht finance and aviation finance, partially offset by a decrease in lombard loans. The overall collateral coverage increased from 87% as of December 31, 2021 to 92% as of December 31, 2022, mainly driven by increases in higher collateralized exposures.

Collateral-dependent financial assets managed by the recovery management function for Swiss Bank mainly include residential mortgages and commercial mortgages. Collateral held against residential mortgages includes mainly mortgage notes on residential real estate, pledged capital awards in retirement plans and life insurance policies. For commercial mortgages, collateral held includes primarily mortgage notes on commercial real estate and cash balances, securities deposits or other assets held with the Group. The overall collateral coverage ratio in relation to the collateral-dependent financial assets increased from 86% as of December 31, 2021 to 88% as of December 31, 2022 for residential and commercial mortgages, mainly reflecting portfolio replacements with higher collateralized exposures as well as write-offs related to lower collateralized exposures.

Off-balance sheet credit exposures

The Group portfolio comprises off-balance sheet exposures with credit risk in the form of irrevocable commitments, guarantees and similar instruments which are subject to the CECL accounting guidance. The main risk characteristics are as follows:

- Irrevocable commitments are primarily commitments made to corporate and institutional borrowers to provide loans under approved, but undrawn, credit facilities. In addition, the Group

has irrevocable commitments under documentary credits for corporate and institutional clients that facilitate international trade. The related credit risk exposure is to corporate clients, including small and medium-sized enterprises, large corporates and multinational clients who are impacted by macroeconomic and industry-specific factors such as economic growth, unemployment and industrial production.

- Guarantees are provided to third parties which contingently obligate the Group to make payments in the event that the underlying counterparty fails to fulfill its obligation under a borrowing or other contractual arrangement. The credit risk associated with guarantees is primarily to corporate and institutional clients and financial institutions, which are sensitive to MEFs including economic growth and interest rates.

For off-balance sheet credit exposures, methodology, scenarios and MEFs used to estimate the provision for expected credit losses are the same as those used to estimate the allowance for credit losses for financial assets held at amortized cost. For the EAD models, a credit conversion factor or similar methodology is applied to off-balance sheet credit exposures in order to project the additional drawn amount between current utilization and the committed facility amount.

- Refer to “Allowance for credit losses” for further information on methodology, scenarios and MEFs used to estimate expected credit losses.

Troubled debt restructurings and modifications

Restructured financing receivables held at amortized cost

in	2022			2021			2020		
	Number of contracts	Recorded investment – pre-modification	Recorded investment – post-modification	Number of contracts	Recorded investment – pre-modification	Recorded investment – post-modification	Number of contracts	Recorded investment – pre-modification	Recorded investment – post-modification
CHF million, except where indicated									
Loans collateralized by securities	0	0	0	1	33	25	3	165	165
Real estate	1	102	82	1	2	2	0	0	0
Commercial and industrial loans	15	204	182	18	402	394	17	127	95
Financial institutions	0	0	0	1	44	44	0	0	0
Total loans	16	306	264	21	481	465	20	292	260

Restructured financing receivables held at amortized cost that defaulted within 12 months from restructuring

in	2022		2021		2020	
	Number of contracts	Recorded investment	Number of contracts	Recorded investment	Number of contracts	Recorded investment
CHF million, except where indicated						
Loans collateralized by securities	0	0	3	156	0	0
Commercial and industrial loans	0	0	1	14	4	13
Total loans	0	0	4	170	4	13

In 2022, the loan modifications of the Group mainly included extended loan repayment terms, including postponed loan amortizations and extended maturity dates, interest rate concessions, a

waiver of interest, a reduction of a loan commitment, a subordination of loans and changes in collateral coverage terms.

As of December 31, 2022 and 2021, the Group did not have any commitments to lend additional funds to debtors whose loan terms had been modified in troubled debt restructurings.

In March 2020, US federal banking regulators issued the “Inter-agency Statement on Loan Modifications and Reporting for Financial Institutions Working with Customers Affected by the Coronavirus (Revised)” (Interagency Statement). According to the Interagency Statement, short-term modifications made on a good faith basis in response to the COVID-19 crisis to borrowers that were otherwise current prior to the relief being granted would not

be considered to be troubled debt restructurings. This includes short-term modifications such as payment deferrals, fee waivers, repayment term extensions or payment delays that are insignificant. The Interagency Statement was developed in consultation with the FASB and the Group applied this guidance until December 31, 2022. The Group had granted short-term modifications to certain borrowers due to the COVID-19 crisis in the form of deferrals of capital and interest payments that were within the scope of this guidance and the loans subject to those deferrals were not reported as troubled debt restructurings in restructured loans.

21 Goodwill

	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Credit Suisse Group ¹
2022					
Gross amount of goodwill (CHF million)					
Balance at beginning of period	1,323	5,502	487	1,107	8,431
Foreign currency translation impact	4	0	1	4	9
Other	(23)	23	0	0	0
Balance at end of period	1,304	5,525	488	1,111	8,440
Accumulated impairment (CHF million)					
Balance at beginning of period	0	5,502	0	0	5,514
Impairment losses	0	23	0	0	23
Balance at end of period	0	5,525	0	0	5,537
Net book value (CHF million)					
Net book value	1,304	0	488	1,111	2,903
2021					
Gross amount of goodwill (CHF million)					
Balance at beginning of period	1,299	5,459	479	1,068	8,317
Foreign currency translation impact	27	43	8	39	117
Other	(3)	0	0	0	(3)
Balance at end of period	1,323	5,502	487	1,107	8,431
Accumulated impairment (CHF million)					
Balance at beginning of period	0	3,879	0	0	3,891
Impairment losses	0	1,623	0	0	1,623
Balance at end of period	0	5,502	0	0	5,514
Net book value (CHF million)					
Net book value	1,323	0	487	1,107	2,917

¹ Gross amount of goodwill and accumulated impairment included CHF 12 million related to legacy business transferred to the former Strategic Resolution Unit in 4Q15 and fully written off at the time of transfer, in addition to the divisions disclosed.

In accordance with US GAAP, the Group continually assesses whether or not there has been a triggering event requiring a review of goodwill.

Subsequent to the creation of the new segment structure, effective January 1, 2022, a portion of the Wealth Management business was transferred to the Investment Bank in the second quarter of 2022. Goodwill is reallocated between reporting units on a relative fair value basis. The Group concluded that the goodwill transferred to the Investment Bank reporting unit of CHF 23 million was fully impaired.

The announcement on October 27, 2022 of the strategy and organizational changes as well as adverse market and economic conditions represent triggering events for the third quarter of 2022 for goodwill impairment testing purposes, and under US GAAP, goodwill has to be tested for impairment both before and immediately after a reorganization of reporting units. The review of the Group's five-year financial plan to reflect the announced strategy was finalized in the fourth quarter of 2022.

The Group concluded that the estimated fair value for all of the reporting units with goodwill exceeded their related carrying values and no further impairment was necessary as of December 31, 2022.

The fair values of the Asset Management and Wealth Management reporting units both exceeded their related carrying values by less than 10%. During the fourth quarter of 2022, Credit Suisse experienced a significant level of deposit and assets under management outflows. The goodwill allocated to these reporting units became more sensitive to an impairment due to these outflows and subdued client activity. There is a significant risk of a future goodwill impairment for these reporting units if their future performances do not achieve the financial projections contained within the five-year financial plan.

As a result of the announced strategy and organizational changes, the Private Fund Group business in the Asset Management reporting unit was transferred to the Investment Bank reporting unit effective January 1, 2023, resulting in an initial transfer of approximately CHF 30 million of goodwill between the reporting units. The Group expects a full impairment in the first quarter of 2023 of the goodwill transferred to the Investment Bank.

As a result of the previously announced acquisition of The Klein Group LLC that is expected to close in the first half of 2023, the Investment Bank will initially recognize a goodwill balance of approximately CHF 60 million, which it expects to fully impair upon the closing of the acquisition.

The carrying value of each reporting unit for the purpose of the goodwill impairment test is determined by considering the reporting units' risk-weighted assets usage, leverage ratio exposure, deferred tax assets, goodwill, intangible assets and other common equity tier 1 (CET1) capital relevant adjustments. The residual value between the total of these elements and the Group's shareholders' equity is allocated to the carrying value of the reporting units on a pro-rata basis.

In estimating the fair value of its reporting units, the Group applied a combination of the market approach and the income approach. Under the market approach, consideration is given to price to projected earnings multiples and price to book value multiples for similarly traded companies and prices paid in recent transactions that have occurred in its industry or in related industries. Under the income approach, a discount rate is applied that reflects the risk and uncertainty related to the reporting unit's projected cash flows, which were determined from the Group's financial plan.

In determining the estimated fair value, the Group relied upon its latest five-year financial plan, which included significant management assumptions and estimates based on its view of current and future economic conditions and regulatory changes.

Estimates of the Group's future earnings potential, and that of the reporting units, involve considerable judgment, including management's view on future changes in market cycles, the regulatory environment and the anticipated result of the implementation of business strategies, competitive factors and assumptions concerning the retention of key employees.

The results of the impairment evaluation of each reporting unit's goodwill would be significantly impacted by adverse changes in the underlying parameters used in the valuation process. If actual outcomes or the future outlook adversely differ from management's best estimates of the key economic assumptions and associated cash flows applied in the valuation of the reporting unit, the Group could potentially incur material impairment charges in the future.

22 Other intangible assets

end of	2022			2021		
	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Other intangible assets (CHF million)						
Trade names/trademarks	25	(25)	0	25	(25)	0
Client relationships	29	(9)	20	31	(7)	24
Other	5	(3)	2	5	(3)	2
Total amortizing other intangible assets	59	(37)	22	61	(35)	26
Non-amortizing other intangible assets	436	—	436	250	—	250
of which mortgage servicing rights, at fair value	403	—	403	224	—	224
Total other intangible assets	495	(37)	458	311	(35)	276

Additional information

in	2022	2021	2020
Aggregate amortization and impairment (CHF million)			
Aggregate amortization	4	8	6
Impairment	0	0	2

Estimated amortization

Estimated amortization (CHF million)	
2023	3
2024	3
2025	2
2026	2
2027	2

23 Other assets and other liabilities

end of	2022	2021
Other assets (CHF million)		
Cash collateral on derivative instruments	7,723	7,659
Cash collateral on non-derivative transactions	647	395
Derivative instruments used for hedging ¹	0	212
Assets held-for-sale	16,112	8,020
of which loans ²	16,090	7,924
allowance for loans held-for-sale	(101)	(44)
of which real estate ³	22	94
of which long-lived assets	0	2
Premises and equipment, net and right-of-use assets	6,929	7,305
Assets held for separate accounts	64	98
Interest and fees receivable	2,583	2,884
Deferred tax assets	305	3,707
Prepaid expenses	927	509
of which cloud computing arrangement implementation costs	72	52
Failed purchases	801	1,307
Defined benefit pension and post-retirement plan assets	4,117	4,215
Other	6,400	4,920
of which digital asset safeguarding assets	102	—
Other assets	46,608	41,231

- Amounts shown after counterparty and cash collateral netting.
- Included as of December 31, 2022 and 2021 were CHF 458 million and CHF 391 million, respectively, in restricted loans, which represented collateral on secured borrowings.
- As of December 31, 2022 and 2021, real estate held-for-sale included foreclosed or repossessed real estate of CHF 21 million and CHF 8 million, respectively, of which CHF 21 million and CHF 8 million, respectively, were related to residential real estate.

end of	2022	2021
Other liabilities (CHF million)		
Cash collateral on derivative instruments	2,036	5,533
Cash collateral on non-derivative transactions	431	528
Derivative instruments used for hedging ¹	154	10
Operating leases liabilities	2,419	2,591
Provisions	1,552	1,925
of which expected credit losses on off-balance sheet credit exposure	217	257
Restructuring liabilities	122	19
Liabilities held for separate accounts	64	98
Interest and fees payable	3,839	3,969
Current tax liabilities	537	685
Deferred tax liabilities	1,378	754
Failed sales	1,471	1,736
Defined benefit pension and post-retirement plan liabilities	269	353
Other	3,928	4,443
of which digital asset safeguarding liabilities	102	—
Other liabilities	18,200	22,644

Premises, equipment and right-of-use assets

end of	2022	2021
Premises and equipment (CHF million)		
Buildings and improvements	859	1,107
Land	215	241
Leasehold improvements	1,601	1,722
Software	8,809	8,146
Equipment	1,831	1,806
Premises and equipment	13,315	13,022
Accumulated depreciation	(8,717)	(8,129)
Total premises and equipment, net	4,598	4,893
Right-of-use assets (CHF million)		
Right-of-use assets-operating leases	2,331	2,412
Total premises and equipment, net and right-of-use assets	6,929	7,305

Depreciation, amortization and impairment

in	2022	2021	2020
CHF million			
Depreciation on premises and equipment	1,129	1,020	964
Impairment on premises and equipment	265	21	10
Amortization and impairment on right-of-use assets	304	361	331

- Refer to “Note 24 – Leases” for further information on right-of-use assets.

24 Leases

The Group enters into both lessee and lessor arrangements.

- Refer to “Note 1 – Summary of significant accounting policies” and “Note 23 – Other assets and other liabilities” for further information.

Lessee arrangements

The Group primarily enters into operating leases. When a real estate lease has both lease and non-lease components, the Group allocates the consideration in the contract based on the relative standalone selling price. For all leases other than real estate leases, the Group does not separate lease and non-lease components. The Group’s finance leases are not material.

The Group has entered into leases for real estate, equipment and vehicles.

Certain equipment and real estate have subsequently been subleased. Sublease income is recognized in other revenues.

Lease costs

end of	2022	2021	2020
Lease costs (CHF million)			
Operating lease costs	340	357	369
Variable lease costs	46	52	50
Sublease income	(52)	(57)	(71)
Net lease costs	334	352	348

From time to time, the Group enters into sale-leaseback transactions in which an asset is sold and immediately leased back. If specific criteria are met, the asset is derecognized from the balance sheet and an operating lease is recognized.

During 2022, the Group entered into 12 sale-leaseback transactions with lease terms ranging from 5 to 10 years. During 2021, the Group entered into 13 sale-leaseback transactions with lease terms ranging from 3 to 10 years. During 2020, the Group entered into one sale-leaseback transaction with a lease term of one year.

Other information

end of	2022	2021	2020
Other information (CHF million)			
Gains/(losses) on sale and leaseback transactions	336	225	15
Cash paid for amounts included in the measurement of operating lease liabilities recorded in operating cash flows	(402)	(399)	(403)
Right-of-use assets obtained in exchange of new operating lease liabilities ¹	165	107	32
Changes to right-of-use assets due to lease modifications for operating leases	68	29	32

- ¹ Represents non-cash transactions and includes right-of-use assets relating to changes in classification of scope of variable interest entities.

The weighted average remaining lease terms and discount rates are based on all outstanding operating leases as well as their respective lease terms and remaining lease obligations.

Weighted average remaining lease term and discount rate

end of	2022	2021
Operating leases		
Remaining lease term (years)	10.5	11.1
Discount rate (%)	2.7	2.6

The following table reflects the undiscounted cash flows from leases for the next five years and thereafter, based on the expected lease term.

Maturities relating to operating lease arrangements

end of	2022	2021
Maturity (CHF million)		
Due within 1 year	372	374
Due between 1 and 2 years	318	339
Due between 2 and 3 years	293	293
Due between 3 and 4 years	276	293
Due between 4 and 5 years	241	255
Thereafter	1,284	1,450
Operating lease obligations	2,784	3,004
Future interest payable	(365)	(413)
Operating lease liabilities	2,419	2,591

Lessor arrangements

The Group enters into sales-type, direct financing and operating leases for real estate, equipment and vehicles. When a real estate lease has both lease and non-lease components, the Group allocates the consideration in the contract based on the relative standalone selling price. For all leases other than real estate leases, the Group does not separate lease and non-lease components.

As of December 31, 2022 and 2021, the Group had approximately CHF 1.3 billion and CHF 1.1 billion, respectively, of residual value guarantees associated with lessor arrangements.

The Group’s risk of loss relating to the residual value of leased assets is mitigated through contractual arrangements with manufacturers or suppliers. Leased assets are also monitored through projections of the residual values at lease origination and periodic reviews of residual values.

Net investments

end of	2022		2021	
	Sales-type leases	Direct financing leases	Sales-type leases	Direct financing leases
Net investments (CHF million)				
Lease receivables	1,324	2,473	1,107	2,395
Unguaranteed residual values	129	25	119	80
Valuation allowances	(10)	(20)	(7)	(18)
Total net investments	1,443	2,478	1,219	2,457

Maturities relating to lessor arrangements

end of	2022			2021		
	Sales-type leases	Direct financing leases	Operating leases	Sales-type leases	Direct financing leases	Operating leases
Maturity (CHF million)						
Due within 1 year	550	738	43	467	727	46
Due between 1 and 2 years	317	694	43	263	641	43
Due between 2 and 3 years	224	627	40	179	583	42
Due between 3 and 4 years	149	460	38	113	458	40
Due between 4 and 5 years	88	115	29	62	125	37
Thereafter	93	19	22	83	31	34
Total	1,421	2,653	215	1,167	2,565	242
Future interest receivable	(97)	(180)	—	(60)	(170)	—
Lease receivables	1,324	2,473	—	1,107	2,395	—

The Group elected the practical expedient to not evaluate whether certain sales taxes and other similar taxes are lessor cost or lessee cost and excludes these costs from being reported as lease income with an associated expense.

The Group enters into leases with fixed or variable lease payments, or with lease payments that depend on an index or a referenced rate which are included in the net investment in the lease at lease commencement, as such payments are considered unavoidable. Other variable lease payments, as well as subsequent changes in an index or referenced rate, are excluded from the net investment in the lease. Lease payments are recorded when due and payable by the lessee.

Lease income

end of	2022	2021	2020
Lease income (CHF million)			
Interest income on sales-type leases	33	25	19
Interest income on direct financing leases	70	68	74
Lease income from operating leases	67	76	93
Variable lease income	3	1	0
Total lease income	173	170	186

Certain leases include i) termination options that allow lessees to terminate the leases within three months of the commencement date, with a notice period of 30 days; ii) termination options that allow the Group to terminate the lease but do not provide the lessee with the same option; iii) termination penalties; iv) options to prepay the payments for the remaining lease term; or v) options that permit the lessee to purchase the leased asset at market value or at the greater of market value and the net present value of the remaining payments.

The Group may enter into vehicle leases as a lessor with members of the Board of Directors or the Executive Board. The terms of such leases with members of the Board of Directors are similar to those with third parties and the terms of such leases with members of the Executive Board reflect standard employee conditions.

25 Deposits

end of	2022			2021		
	Switzerland	Foreign	Total	Switzerland	Foreign	Total
Deposits (CHF million)						
Non-interest-bearing demand deposits	2,589	1,462	4,051	2,703	2,556	5,259
Interest-bearing demand deposits	102,202	16,150	118,352	152,993	47,200	200,193
Savings deposits	42,437	1,459	43,896	60,027	8,474	68,501
Time deposits	18,467	60,374	78,841 ¹	35,602	102,229	137,831 ¹
Total deposits	165,695	79,445	245,140²	251,325	160,459	411,784²
of which due to banks	—	—	11,905	—	—	18,965
of which customer deposits	—	—	233,235	—	—	392,819

The designation of deposits in Switzerland versus foreign deposits is based upon the location of the office where the deposit is recorded.

- 1 Included uninsured time deposits of CHF 74,736 million and CHF 128,526 million as of December 31, 2022 and 2021, respectively, which were in excess of any country-specific insurance limit or which are not covered by an insurance regime.
- 2 Not included as of December 31, 2022 and 2021 were CHF 55 million and CHF 86 million, respectively, of overdrawn deposits reclassified as loans.

26 Long-term debt

end of	2022	2021
Long-term debt (CHF million)		
Senior	140,572	141,402
Subordinated	14,567	24,103
Non-recourse liabilities from consolidated VIEs	2,096	1,391
Long-term debt	157,235	166,896
of which reported at fair value	58,721	68,722
of which structured notes	38,925	43,126
end of	2022	2021
Structured notes by product (CHF million)		
Equity	21,437	28,681
Fixed income	14,407	11,678
Credit	2,815	2,363
Other	266	404
Total structured notes	38,925	43,126

Total long-term debt includes debt issuances managed by Treasury that do not contain derivative features (vanilla debt), as well as hybrid debt instruments with embedded derivatives, which are issued as part of the Group's structured product activities. Long-term debt includes both Swiss franc and foreign exchange denominated fixed and variable rate bonds.

The interest rate ranges presented in the table below are based on the contractual terms of the Group's vanilla debt. Interest rate ranges for future coupon payments on structured products for which fair value has been elected are not included in the table below as these coupons are dependent upon the embedded derivative and prevailing market conditions at the time each coupon is paid. In addition, the effects of derivatives used for hedging are not included in the interest rate ranges on the associated debt.

Long-term debt by maturities

end of	2023	2024	2025	2026	2027	Thereafter	Total
Group parent company (CHF million)							
Senior debt							
Fixed rate	2,849	1,192	6,420	8,029	2,270	25,860	46,620
Variable rate	1,001	803	0	1,485	1,476	0	4,765
Interest rate (range in %) ¹	1.0–5.5	3.5–6.0	1.3–3.8	2.1–6.4	0.9–7.0	0.6–9.0	—
Subordinated debt							
Fixed rate	3,496	2,464	1,504	1,153	2,221	1,270	12,108
Interest rates (range in %) ¹	3.9–7.5	3.5–6.3	3.0–7.3	6.4	5.3–9.8	4.5–5.1	—
Subtotal – Group parent company	7,346	4,459	7,924	10,667	5,967	27,130	63,493
Subsidiaries (CHF million)							
Senior debt							
Fixed rate	4,396	6,516	6,574	5,264	2,237	13,608	38,595
Variable rate	13,297	11,451	7,171	3,961	4,010	10,702	50,592
Interest rates (range in %) ¹	0.0–2.2	0.0–4.8	0.0–7.3	0.0–3.3	0.0–5.0	0.0–7.3	—
Subordinated debt							
Fixed rate	2,201	21	15	37	14	171	2,459
Interest rates (range in %) ¹	6.5	6.9	5.9	6.4	5.8	8.5	—
Non-recourse liabilities from consolidated VIEs							
Fixed rate	804	0	219	0	0	0	1,023
Variable rate	110	9 ²	127	0	41 ²	786	1,073
Interest rates (range in %) ¹	2.3–6.6	—	1.9	—	—	0.0–10.4	—
Subtotal – Subsidiaries	20,808	17,997	14,106	9,262	6,302	25,267	93,742
Total long-term debt	28,154	22,456	22,030	19,929	12,269	52,397	157,235
of which structured notes	9,380	7,860	5,241	2,893	3,076	10,475	38,925

The maturity of perpetual debt was based on the earliest callable date. The maturity of all other debt is based on contractual maturity and includes certain structured notes that have mandatory early redemption features based on stipulated movements in markets or the occurrence of a market event. Within this population there are approximately CHF 0.8 billion of such notes with a contractual maturity of greater than one year that have an observable likelihood of redemption occurring within one year based on a modelling assessment.

- 1 Excludes structured notes for which fair value has been elected as the related coupons are dependent upon the embedded derivatives and prevailing market conditions at the time each coupon is paid.
- 2 Reflects equity linked notes, where the payout is not fixed.

The Group and the Bank maintain a shelf registration statement with the SEC, which allows each entity to issue, from time to time, senior and subordinated debt securities, warrants and guarantees.

The Bank maintains a euro medium-term note program that allows the Bank to issue senior debt securities.

The Group maintains three senior debt programs that allow the Group to issue senior debt securities with certain features that are designed to allow for statutory bail-in by the Swiss Financial Market Supervisory Authority FINMA (FINMA) under the Swiss banking laws and regulations.

The Bank maintains a JPY 500 billion Samurai shelf registration statement that allows the Bank to issue, from time to time, senior and subordinated debt securities.

27 Accumulated other comprehensive income and additional share information

Accumulated other comprehensive income

	Gains/ (losses) on cash flow hedges	Cumulative translation adjustments	Unrealized gains/ (losses) on securities ¹	Actuarial gains/ (losses)	Net prior service credit/ (cost)	Gains/ (losses) on liabilities relating to credit risk	AOCI
2022 (CHF million)							
Balance at beginning of period	(95)	(16,739)	13	(2,705)	365	(2,165)	(21,326)
Increase/(decrease)	(455)	(278)	(21)	(184)	(73)	6,122	5,111
Reclassification adjustments, included in net income/(loss)	(767)	0	(5)	248	(80)	(31)	(635)
Total increase/(decrease)	(1,222)	(278)	(26)	64	(153)	6,091	4,476
Balance at end of period	(1,317)	(17,017)	(13)	(2,641)	212	3,926	(16,850)
2021 (CHF million)							
Balance at beginning of period	206	(17,528)	13	(3,727)	456	(2,570)	(23,150)
Increase/(decrease)	(260)	783	0	707	4	302	1,536
Reclassification adjustments, included in net income/(loss)	(41)	6	0	315	(95)	103	288
Total increase/(decrease)	(301)	789	0	1,022	(91)	405	1,824
Balance at end of period	(95)	(16,739)	13	(2,705)	365	(2,165)	(21,326)
2020 (CHF million)							
Balance at beginning of period	28	(14,469)	30	(3,690)	604	(2,772)	(20,269)
Increase/(decrease)	91	(3,076)	(49)	(327)	(5)	45	(3,321)
Reclassification adjustments, included in net income/(loss)	87	17	32	290	(143)	157	440
Total increase/(decrease)	178	(3,059)	(17)	(37)	(148)	202	(2,881)
Balance at end of period	206	(17,528)	13	(3,727)	456	(2,570)	(23,150)

1 No impairments on available-for-sale debt securities were recognized in net income/(loss) in 2022, 2021 and 2020.

- Refer to “Note 29 – Tax” and “Note 32 – Pension and other post-retirement benefits” for income tax expense/(benefit) on the movements of accumulated other comprehensive income/(loss).

Details of significant reclassification adjustments

in	2022	2021	2020
Reclassification adjustments, included in net income/(loss) (CHF million)			
Gains/(losses) on cash flow hedges			
Gross gains/(losses)	(958) ¹	(40) ¹	101 ²
Tax expense/(benefit)	191	(1)	(14)
Net of tax	(767)	(41)	87
Actuarial gains/(losses)			
Amortization of recognized actuarial losses ³	307	388	355
Tax expense/(benefit)	(59)	(73)	(65)
Net of tax	248	315	290
Net prior service credit/(cost)			
Amortization of recognized prior service credit/(cost) ³	(98)	(118)	(176)
Tax expense/(benefit)	18	23	33
Net of tax	(80)	(95)	(143)

- 1 Included in interest and dividend income as well as operating expenses. Refer to “Note 33 – Derivatives and hedging activities” for further information.
- 2 Included in interest and dividend income, trading revenues as well as operating expenses. Refer to “Note 33 – Derivatives and hedging activities” for further information.
- 3 These components are included in the computation of total benefit costs. Refer to “Note 32 – Pension and other post-retirement benefits” for further information.

Additional share information

	2022	2021	2020
Common shares issued			
Balance at beginning of period	2,650,747,720	2,447,747,720	2,556,011,720
Issuance of common shares	1,351,410,342	203,000,000	0
Cancellation of repurchased shares	0	0	(108,264,000)
Balance at end of period	4,002,158,062	2,650,747,720	2,447,747,720
Treasury shares			
Balance at beginning of period	(81,063,211)	(41,602,841)	(119,761,811)
Sale/(repurchase) of treasury shares	(40,403,860)	(98,065,361)	(80,914,296)
Cancellation of repurchased shares	0	0	108,264,000
Issuance of common shares relating to mandatory convertible notes	0	(203,000,000)	0
Conversion of mandatory convertible notes	0	202,998,491	0
Share-based compensation	60,559,090	58,606,500	50,809,266
Balance at end of period	(60,907,981)	(81,063,211)	(41,602,841)
Common shares outstanding			
Balance at end of period	3,941,250,081 ¹	2,569,684,509 ²	2,406,144,879

- 1 At par value CHF 0.04 each, fully paid. In addition to the treasury shares, a maximum of 575,000,000 unissued shares (conditional, conversion and authorized capital) were available for issuance without further approval of the shareholders. None of these shares were reserved for capital instruments.
- 2 At par value CHF 0.04 each, fully paid. In addition to the treasury shares, a maximum of 450,000,000 unissued shares (conditional, conversion and authorized capital) were available for issuance without further approval of the shareholders. 111,524,164 of these shares were reserved for capital instruments.

28 Offsetting of financial assets and financial liabilities

The disclosures set out in the tables below include derivatives, reverse repurchase and repurchase agreements, and securities lending and borrowing transactions that:

- are offset in the Group's consolidated balance sheets; or
- are subject to an enforceable master netting agreement or similar agreement (enforceable master netting agreements), irrespective of whether they are offset in the Group's consolidated balance sheets.

Similar agreements include derivative clearing agreements, global master repurchase agreements and global master securities lending agreements.

The Group uses master netting agreements to mitigate counterparty credit risk in certain transactions, including derivative contracts and securities borrowed, lent and subject to repurchase agreements.

Derivatives

The Group transacts bilateral OTC derivatives (OTC derivatives) mainly under International Swaps and Derivatives Association (ISDA) Master Agreements and Swiss Master Agreements for OTC derivative instruments. These agreements provide for the net settlement of all transactions under the agreement through a single payment in the event of default or termination under the agreement. They allow the Group to offset balances from derivative assets and liabilities as well as the receivables and payables to related cash collateral transacted with the same counterparty. Collateral for OTC derivatives is received and provided in the form of cash and marketable securities. Such collateral may be subject to the standard industry terms of an ISDA Credit Support Annex. The terms of an ISDA Credit Support Annex provide that securities received or provided as collateral may be pledged or sold during the term of the transactions and must be returned upon maturity of the transaction. These terms also give each counterparty the right to terminate the related transactions upon the other counterparty's failure to post collateral. Financial collateral received or pledged for OTC derivatives may also be subject to collateral agreements which restrict the use of financial collateral.

For derivatives transacted with exchanges (exchange-traded derivatives) and central clearing counterparties (OTC-cleared derivatives), positive and negative replacement values (PRV/NRV) and related cash collateral may be offset if the terms of the rules and regulations governing these exchanges and central clearing counterparties permit such netting and offset.

Where no such agreements or terms exist, fair values are recorded on a gross basis.

Exchange-traded derivatives or OTC-cleared derivatives, which are fully margined and for which the daily margin payments constitute settlement of the outstanding exposure, are not included in the offsetting disclosures because they are not subject to offsetting due to the daily settlement. The daily margin payments, which are not settled until the next settlement cycle is conducted, are presented in brokerage receivables or brokerage payables. The notional amount for these daily settled derivatives is included in the fair value of derivative instruments table in "Note 33 – Derivatives and hedging activities".

Under US GAAP, the Group elected to account for substantially all financial instruments with an embedded derivative that is not considered clearly and closely related to the host contract at fair value. There is an exception for certain bifurcated hybrid debt instruments which the Group did not elect to account for at fair value. However, these bifurcated embedded derivatives are generally not subject to enforceable master netting agreements and are not recorded as derivative instruments under trading assets and liabilities or other assets and other liabilities. Information on bifurcated embedded derivatives has therefore not been included in the offsetting disclosures.

The following table presents the gross amount of derivatives subject to enforceable master netting agreements by contract and transaction type, the amount of offsetting, the amount of derivatives not subject to enforceable master netting agreements and the net amount presented in the consolidated balance sheets.

Offsetting of derivatives

end of	2022		2021	
	Derivative assets	Derivative liabilities	Derivative assets	Derivative liabilities
Gross derivatives subject to enforceable master netting agreements (CHF billion)				
OTC-cleared	8.6	9.8	4.4	4.0
OTC	24.2	23.5	44.4	40.3
Exchange-traded	0.0	0.0	0.1	0.0
Interest rate products	32.8	33.3	48.9	44.3
OTC-cleared	0.3	0.3	0.2	0.2
OTC	24.9	25.5	20.9 ¹	22.9 ¹
Exchange-traded	0.0	0.1	0.0	0.0
Foreign exchange products	25.2	25.9	21.1	23.1
OTC	4.3	7.1	8.2	13.0
Exchange-traded	18.6	18.3	22.7	21.4
Equity/index-related products	22.9	25.4	30.9	34.4
OTC-cleared	0.6	0.6	1.3	1.4
OTC	2.4	2.6	3.3	4.3
Credit derivatives	3.0	3.2	4.6	5.7
OTC-cleared	0.1	0.1	0.0	0.0
OTC	0.9	0.4	1.4	0.5
Exchange-traded	0.0	0.0	0.1	0.1
Other products ²	1.0	0.5	1.5	0.6
OTC-cleared	9.6	10.8	5.9	5.6
OTC	56.7	59.1	78.2	81.0
Exchange-traded	18.6	18.4	22.9	21.5
Total gross derivatives subject to enforceable master netting agreements	84.9	88.3	107.0	108.1
Offsetting (CHF billion)				
OTC-cleared	(9.5)	(10.7)	(5.6)	(5.3)
OTC	(49.6)	(52.9)	(69.3) ¹	(75.5) ¹
Exchange-traded	(18.0)	(18.2)	(21.0)	(21.0)
Offsetting	(77.1)	(81.8)	(95.9)	(101.8)
of which counterparty netting	(68.3)	(68.3)	(83.9) ¹	(83.9) ¹
of which cash collateral netting	(8.8)	(13.5)	(12.0)	(17.9)
Net derivatives presented in the consolidated balance sheets (CHF billion)				
OTC-cleared	0.1	0.1	0.3	0.3
OTC	7.1	6.2	8.9	5.5
Exchange-traded	0.6	0.2	1.9	0.5
Total net derivatives subject to enforceable master netting agreements	7.8	6.5	11.1	6.3
Total derivatives not subject to enforceable master netting agreements ³	3.3	2.6	6.7	4.3
Total net derivatives presented in the consolidated balance sheets	11.1	9.1	17.8	10.6
of which recorded in trading assets and trading liabilities	11.1	8.9	17.6	10.6
of which recorded in other assets and other liabilities	0.0	0.2	0.2	0.0

¹ Prior period has been revised.

² Primarily precious metals, commodity and energy products.

³ Represents derivatives where a legal opinion supporting the enforceability of netting in the event of default or termination under the agreement is not in place.

Reverse repurchase and repurchase agreements and securities lending and borrowing transactions

Reverse repurchase and repurchase agreements are generally covered by master repurchase agreements. In certain situations, for example, in the event of default, all contracts under the agreements are terminated and are settled net in one single payment. Master repurchase agreements also include payment or settlement netting provisions in the normal course of business that

state that all amounts in the same currency payable by each party to the other under any transaction or otherwise under the master repurchase agreement on the same date shall be set off.

As permitted by US GAAP the Group has elected to net transactions under such agreements in the consolidated balance sheet when specific conditions are met. Transactions are netted if, among other conditions, they are executed with the same counterparty, have the same explicit settlement date specified at the

inception of the transactions, are settled through the same securities transfer system and are subject to the same enforceable master netting agreement. The amounts offset are measured on the same basis as the underlying transaction (i.e., on an accrual basis or fair value basis).

Securities lending and borrowing transactions are generally executed under master securities lending agreements with netting terms similar to ISDA Master Agreements. In certain situations, for example in the event of default, all contracts under the agreement are terminated and are settled net in one single payment. Transactions under these agreements are netted in the consolidated balance sheets if they meet the same right of offset criteria as for reverse repurchase and repurchase agreements. In general, most securities lending and borrowing transactions do not meet the criterion of having the same settlement date specified at inception of the transaction, and therefore they are not eligible for netting in the consolidated balance sheets. However, securities lending and borrowing transactions with explicit maturity dates may be eligible for netting in the consolidated balance sheets.

Reverse repurchase and repurchase agreements are collateralized principally by government securities and corporate bonds and have terms ranging from overnight to a longer or unspecified period of time. In the event of counterparty default, the reverse repurchase agreement or securities lending agreement provides the Group with the right to liquidate the collateral held. As is the case in the Group's normal course of business, a significant portion of the collateral received that may be sold or repledged was sold or repledged as of December 31, 2022 and December 31, 2021. In certain circumstances, financial collateral received may be restricted during the term of the agreement (e.g., in tri-party arrangements).

The following table presents the gross amount of securities purchased under resale agreements and securities borrowing transactions subject to enforceable master netting agreements, the amount of offsetting, the amount of securities purchased under resale agreements and securities borrowing transactions not subject to enforceable master netting agreements and the net amount presented in the consolidated balance sheets.

Offsetting of securities purchased under resale agreements and securities borrowing transactions

end of	2022			2021		
	Gross	Offsetting	Net book value	Gross	Offsetting	Net book value
Securities purchased under resale agreements and securities borrowing transactions (CHF billion)						
Securities purchased under resale agreements	47.9	(10.7)	37.2	74.1	(16.6)	57.5
Securities borrowing transactions	4.5	0.0	4.5	22.2	0.0	22.2
Total subject to enforceable master netting agreements	52.4	(10.7)	41.7	96.3	(16.6)	79.7
Total not subject to enforceable master netting agreements ¹	17.1	—	17.1	24.2	—	24.2
Total	69.5	(10.7)	58.8 ²	120.5	(16.6)	103.9 ²

¹ Represents securities purchased under resale agreements and securities borrowing transactions where a legal opinion supporting the enforceability of netting in the event of default or termination under the agreement is not in place.

² CHF 40,793 million and CHF 68,623 million of the total net amount as of the end of 2022 and 2021, respectively, were reported at fair value.

The following table presents the gross amount of securities sold under repurchase agreements and securities lending transactions subject to enforceable master netting agreements, the amount of offsetting, the amount of securities sold under repurchase

agreements and securities lending transactions not subject to enforceable master netting agreements and the net amount presented in the consolidated balance sheets.

Offsetting of securities sold under repurchase agreements and securities lending transactions

end of	2022			2021		
	Gross	Offsetting	Net book value	Gross	Offsetting	Net book value
Securities sold under repurchase agreements and securities lending transactions (CHF billion)						
Securities sold under repurchase agreements	27.8	(10.7)	17.1	32.2	(16.6)	15.6
Securities lending transactions	0.9	0.0	0.9	15.4	0.0	15.4
Obligation to return securities received as collateral, at fair value	2.9	0.0	2.9	14.7	0.0	14.7
Total subject to enforceable master netting agreements	31.6	(10.7)	20.9	62.3	(16.6)	45.7
Total not subject to enforceable master netting agreements ¹	2.4	—	2.4	4.6	—	4.6
Total	34.0	(10.7)	23.3	66.9	(16.6)	50.3
of which securities sold under repurchase agreements and securities lending transactions	31.0	(10.7)	20.3 ²	51.9	(16.6)	35.3 ²
of which obligation to return securities received as collateral, at fair value	3.0	0.0	3.0	15.0	0.0	15.0

1 Represents securities sold under repurchase agreements and securities lending transactions where a legal opinion supporting the enforceability of netting in the event of default or termination under the agreement is not in place.

2 CHF 14,042 million and CHF 13,213 million of the total net amount as of the end of 2022 and 2021, respectively, were reported at fair value.

The following table presents the net amount presented in the consolidated balance sheets of financial assets and liabilities subject to enforceable master netting agreements and the gross amount of financial instruments and cash collateral not offset in the consolidated balance sheets. The table excludes derivatives, reverse repurchase and repurchase agreements and securities

lending and borrowing transactions not subject to enforceable master netting agreements where a legal opinion supporting the enforceability of netting in the event of default or termination under the agreement is not in place. Net exposure reflects risk mitigation in the form of collateral.

Amounts not offset in the consolidated balance sheets

end of	2022				2021			
	Net book value	Financial instruments ¹	Cash collateral received/pledged ¹	Net exposure	Net book value	Financial instruments ¹	Cash collateral received/pledged ¹	Net exposure
Financial assets subject to enforceable master netting agreements (CHF billion)								
Derivatives	7.8	3.2	0.0	4.6	11.1	4.5	0.0	6.6
Securities purchased under resale agreements	37.2	37.1	0.1	0.0	57.5	57.5	0.0	0.0
Securities borrowing transactions	4.5	4.3	0.0	0.2	22.2	21.9	0.0	0.3
Total financial assets subject to enforceable master netting agreements	49.5	44.6	0.1	4.8	90.8	83.9	0.0	6.9
Financial liabilities subject to enforceable master netting agreements (CHF billion)								
Derivatives	6.5	1.2	0.0	5.3	6.3	1.3	0.0	5.0
Securities sold under repurchase agreements	17.1	17.1	0.0	0.0	15.6	15.5	0.1	0.0
Securities lending transactions	0.9	0.8	0.0	0.1	15.4	15.3	0.0	0.1
Obligation to return securities received as collateral, at fair value	2.9	2.7	0.0	0.2	14.7	13.0	0.0	1.7
Total financial liabilities subject to enforceable master netting agreements	27.4	21.8	0.0	5.6	52.0	45.1	0.1	6.8

1 The total amount reported in financial instruments (recognized financial assets and financial liabilities and non-cash financial collateral) and cash collateral is limited to the amount of the related instruments presented in the consolidated balance sheets and therefore any over-collateralization of these positions is not included.

Net exposure is subject to further credit mitigation through the transfer of the exposure to other market counterparties by the use of credit default swaps (CDS) and credit insurance contracts.

Therefore the net exposure presented in the table above is not representative of the Group's counterparty exposure.

29 Tax

Details of current and deferred taxes

<u>in</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>
Current and deferred taxes (CHF million)			
Switzerland	314	316	163
Foreign	(76)	485	204
Current income tax expense	<u>238</u>	<u>801</u>	<u>367</u>
Switzerland	120	222	450
Foreign	3,690	3	(16)
Deferred income tax expense	<u>3,810</u>	<u>225</u>	<u>434</u>
Income tax expense	<u>4,048</u>	<u>1,026</u>	<u>801</u>
Income tax expense/(benefit) reported in shareholders' equity related to:			
Gains/(losses) on cash flow hedges	(266)	(63)	25
Cumulative translation adjustment	(10)	4	0
Unrealized gains/(losses) on debt securities	(9)	0	(6)
Actuarial gains/(losses)	(34)	228	(18)
Net prior service credit/(cost)	(35)	(23)	(33)
Share-based compensation and treasury shares	(4)	(4)	(4)

Reconciliation of taxes computed at the Swiss statutory rate

<u>in</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>
Income/(loss) before taxes (CHF million)			
Switzerland	(988)	257	1,770
Foreign	(2,270)	(857)	1,697
Income/(loss) before taxes	<u>(3,258)</u>	<u>(600)</u>	<u>3,467</u>
Reconciliation of taxes computed at the Swiss statutory rate (CHF million)			
Income tax expense/(benefit) computed at the statutory tax rate ¹	(603)	(111)	693
Increase/(decrease) in income taxes resulting from			
Foreign tax rate differential	(93)	370	(62)
Non-deductible amortization of other intangible assets and goodwill impairment	0	(300)	0
Other non-deductible expenses	306	386	254
Additional taxable income	4	15	8
Lower taxed income	(147)	(146)	(234)
(Income)/loss taxable to noncontrolling interests	11	11	18
Changes in tax law and rates	23	(33)	(6)
Changes in deferred tax valuation allowance	4,545	621	322
Change in recognition of outside basis difference	(2)	2	(9)
(Windfall tax benefits) /shortfall tax charges on share-based compensation	84	37	76
Other	(80)	174	(259)
Income tax expense	<u>4,048</u>	<u>1,026</u>	<u>801</u>

¹ The statutory tax rate was 18.5% in 2022 and 2021 and 20% in 2020.

2022

Foreign tax rate differential of CHF 93 million reflected a foreign tax benefit, primarily driven by losses in higher tax jurisdictions, mainly in the US and the UK, partially offset by profits made in higher tax jurisdictions, mainly in Brazil. The foreign tax rate expense of CHF 3,614 million comprised not only the foreign tax expense based on statutory tax rates but also the tax impacts related to the following reconciling items.

Other non-deductible expenses of CHF 306 million included the impact of CHF 189 million relating to non-deductible interest expenses and non-deductible funding costs, CHF 154 million relating to non-deductible legacy litigation provisions, CHF 75 million relating to other non-deductible expenses, CHF 15 million relating to non-deductible UK bank levy costs and various smaller items. These expenses were partially offset by a net benefit of CHF 138 million for the reassessment of the interest cost deductibility relating to the recognition of previously unrecognized tax benefits of non-deductible funding.

Lower taxed income of CHF 147 million included a tax benefit of CHF 65 million related to non-taxable life insurance income, CHF 39 million related to non-taxable dividend income, CHF 37 million related to concessionary and lower taxed income and various smaller items.

Changes in deferred tax valuation allowances of CHF 4,545 million primarily related to the reassessment of deferred tax assets as a result of the comprehensive strategic review announced on October 27, 2022, primarily due to the limited future taxable income against which deferred tax assets could be utilized. Management considered both positive and negative evidence and concluded that it is more likely than not that a significant portion of the Group's deferred tax assets will not be realized. This resulted in an increase in the valuation allowance of CHF 3,655 million, mainly in respect of two of the Group's operating entities in the US. The net impact also included valuation allowances on deferred tax assets of CHF 850 million related to current year results, mainly in respect of two of the Group's operating entities in Switzerland, three of the Group's operating entities in the US and two of the Group's operating entities in the UK. This also included an increase in the valuation allowance of CHF 40 million relating to year-end reassessments of deferred tax assets.

Other of CHF 80 million included an income tax benefit of CHF 180 million relating to return-to-provision adjustments and CHF 36 million relating to tax credits. These benefits were partially offset by CHF 57 million relating to the current year US base erosion and anti-abuse tax (BEAT) provision, CHF 45 million relating to the tax impact of an accounting standard implementation transition adjustment for own credit movements and CHF 27 million relating to unrealized mark-to-market results on share-based compensation. The remaining balance included various smaller items.

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2021

Foreign tax rate differential of CHF 370 million reflected a foreign tax charge primarily driven by losses in higher tax jurisdictions, mainly in the UK, partially offset by profits made in higher tax jurisdictions, such as the US. The foreign tax rate expense of CHF 488 million comprised not only the foreign tax expense based on statutory tax rates but also the tax impacts related to the following reconciling items.

Other non-deductible expenses of CHF 386 million included the impact of CHF 200 million relating to non-deductible interest expenses and non-deductible costs related to funding and capital (including a contingency accrual of CHF 11 million), CHF 93 million relating to non-deductible legacy litigation provisions, including amounts relating to the Mozambique matter, CHF 43 million relating to other non-deductible expenses, CHF 39 million relating to non-deductible bank levy costs and other non-deductible compensation expenses and management costs and various other small items.

Lower taxed income of CHF 146 million included a tax benefit of CHF 77 million related to non-taxable life insurance income, CHF 41 million related to non-taxable dividend income, CHF 15 million related to concessionary and lower taxed income, CHF 15 million related to exempt income and various smaller items.

Changes in deferred tax valuation allowances of CHF 621 million included a tax charge from the increase in valuation allowances on deferred tax assets of CHF 781 million, mainly in respect of two of the Group's operating entities in the UK. This mainly reflected the impact of the loss related to Archehos attributable to the UK operations. Also included was the net impact of the release of valuation allowances on deferred tax assets of CHF 160 million, mainly in respect of one of the Group's operating entities in Switzerland and another of the Group's operating entities in Hong Kong.

Other of CHF 174 million included an income tax charge of CHF 100 million relating to withholding taxes, CHF 51 million relating to the tax impact of an accounting standard implementation transition adjustment for own credit movements, CHF 29 million relating to the current year BEAT provision and CHF 14 million relating to own credit valuation movements. These benefits were partially offset by CHF 24 million relating to prior years' adjustments. The remaining balance included various smaller items.

2020

Foreign tax rate differential of CHF 62 million reflected a foreign tax benefit primarily driven by losses in higher tax jurisdictions, mainly in the UK, and profits incurred in lower tax jurisdictions, mainly in Singapore, partially offset by profits made in higher tax jurisdictions, such as the US. The foreign tax rate expense of CHF 188 million comprised not only the foreign tax expense based on statutory tax rates but also the tax impacts related to the following reconciling items.

Other non-deductible expenses of CHF 254 million included the impact of CHF 117 million relating to non-deductible interest expenses and non-deductible costs related to funding and capital (including the impact of a previously unrecognized tax benefit of CHF 157 million relating to the resolution of interest cost deductibility with and between international tax authorities, partially offset by a contingency accrual of CHF 41 million), CHF 68 million relating to non-deductible bank levy costs and other non-deductible compensation expenses and management costs, CHF 46 million relating to non-deductible legacy litigation provisions and CHF 23 million relating to other non-deductible expenses.

Lower taxed income of CHF 234 million included a tax benefit of CHF 79 million related to the revaluations of the equity investments in SIX Group AG, Allfunds Group and Pfandbriefbank in Switzerland, CHF 67 million related to concessionary and lower taxed income, CHF 67 million related to non-taxable life insurance income, CHF 19 million related to the transfer of the Invest-lab fund platform to Allfunds Group and various smaller items.

Changes in deferred tax valuation allowances of CHF 322 million included a tax charge from the increase in valuation allowances on deferred tax assets of CHF 353 million, mainly in respect of the re-assessment of deferred tax assets reflecting changes in the forecasted future profitability of two of the Group's operating entities in Switzerland of CHF 252 million, and also in respect of one of the Group's operating entities in the UK. Also included was the net impact of the release of valuation allowances on deferred tax assets of CHF 31 million, mainly in respect of one of the Group's operating entities in Hong Kong and another of the Group's operating entities in the UK.

Other of CHF 259 million included an income tax benefit from the re-assessment of the BEAT provision for 2019 of CHF 180 million and the impact of a change in US tax rules relating to federal net operating losses (NOL), where federal NOL generated in tax years 2018, 2019 or 2020 can be carried back for five years instead of no carry back before and also the deductible interest expense limitations for the years 2019 and 2020 have been increased from 30% to 50% of adjusted taxable income for the year, which in aggregate resulted in a benefit of CHF 141 million. Additionally, this included an income tax benefit of CHF 82 million relating to prior years' adjustments and a tax benefit of CHF 34 million relating to the beneficial earnings mix of one of the Group's operating entities in Switzerland. These benefits were partially offset by CHF 78 million relating to the tax impact of an accounting standard implementation transition adjustment for own credit movements, CHF 61 million relating to withholding taxes, CHF 26 million relating to the current year BEAT provision and CHF 14 million relating to own credit valuation movements. The remaining balance included various smaller items.

The US tax reform enacted in December 2017 introduced the BEAT tax regime, effective as of January 1, 2018, for which final regulations were issued by the US Department of Treasury on December 2, 2019. Following the publication of the 2019 financial statements, Credit Suisse continued its analysis of the final

regulations, resulting in a revision to the technical application of the prior BEAT estimate. This new information was not available or reasonably knowable at the time of the publication of the 2019 financial statements and resulted in a change of accounting estimate reflected in 2020.

Deferred tax assets and liabilities

end of	2022	2021
Deferred tax assets and liabilities (CHF million)		
Compensation and benefits	654	844
Loans	1,151	485
Investment securities	992	1,257
Provisions	648	1,358
Leases	357	367
Derivatives	184	58
Real estate	241	258
Net operating loss carry-forwards	9,435	7,120
Goodwill and intangible assets	67	135
Other	437	171
Gross deferred tax assets before valuation allowance	14,166	12,053
Less valuation allowance	(10,208)	(6,072)
Gross deferred tax assets net of valuation allowance	3,958	5,981
Compensation and benefits	(878)	(973)
Loans	(2,298)	(305)
Investment securities	(744)	(722)
Provisions	(282)	(298)
Leases	(351)	(358)
Derivatives	(286)	(218)
Real estate	(46)	(46)
Other	(146)	(108)
Gross deferred tax liabilities	(5,031)	(3,028)
Net deferred tax assets/(liabilities)	(1,073)	2,953
of which deferred tax assets	305	3,707
of which net operating losses	141	881
of which deductible temporary differences	164	2,826
of which deferred tax liabilities	(1,378)	(754)

Net deferred tax liabilities of CHF 1,073 million as of December 31, 2022 decreased CHF 4,026 million compared to net deferred tax assets of CHF 2,953 million as of December 31, 2021, primarily reflecting the valuation allowances relating to the reassessment of the deferred tax assets as a result of the comprehensive strategic review announced on October 27, 2022, as well as valuation allowances relating to current period results. The movement also reflected tax impacts directly recorded in other comprehensive income, mainly related to own credit movements, partially offset by the impact of foreign exchange translation gains, which were included within the currency translation adjustments, and a pension plan re-measurement.

The Group's valuation allowance against gross deferred tax assets was CHF 10.2 billion as of December 31, 2022 compared to CHF 6.1 billion as of December 31, 2021. This was due to the uncertainty concerning the Group's ability to generate the necessary amount and mix of taxable income in future periods. The

valuation allowance also reflected an increase due to participation impairments in one of the Group's operating entities in Switzerland and a decrease due to valuation allowance adjustments recorded in other comprehensive income, mainly related to own credit movements.

Unrecognized deferred tax liabilities

As of December 31, 2022, the Group had accumulated undistributed earnings from foreign subsidiaries of CHF 18.2 billion. No deferred tax liability was recorded in respect of those amounts, as these earnings are considered indefinitely reinvested. The Group would need to accrue and pay taxes on these undistributed earnings if such earnings were repatriated. It is not practicable to estimate the amount of unrecognized deferred tax liabilities for these undistributed foreign earnings.

Amounts and expiration dates of net operating loss carry-forwards

end of 2022	Total
Net operating loss carry-forwards (CHF million)	
Due to expire within 1 year	4,081
Due to expire within 2 to 5 years	4,772
Due to expire within 6 to 10 years	12,780
Due to expire within 11 to 20 years	9,118
Amount due to expire	30,751
Amount not due to expire	24,834
Total net operating loss carry-forwards	55,585

Movements in the valuation allowance

in	2022	2021	2020
Movements (CHF million)			
Balance at beginning of period	6,072	4,465	4,136
Net changes	4,136	1,607	329
Balance at end of period	10,208	6,072	4,465

As part of its normal practice, the Group conducted a detailed evaluation of its expected future results. This evaluation was dependent on management estimates and assumptions in developing the expected future results, which were based on a strategic business planning process influenced by current economic conditions and assumptions of future economic conditions that are subject to change. This evaluation took into account both positive and negative evidence related to expected future taxable income and also considered stress scenarios.

This evaluation has indicated the expected future results that are likely to be earned in jurisdictions where the Group has significant gross deferred tax assets, primarily in the US, Switzerland and the UK. The Group then compared those expected future results with the applicable law governing the utilization of deferred tax assets.

Based on the expected future results in two of the Group's operating entities in Switzerland and given that the Swiss tax law allows for a seven-year carry-forward period for NOLs, a valuation allowance is still required on the deferred tax assets of these entities.

UK tax law allows for an unlimited carry-forward for NOLs, while US tax law allows for a 20-year carry-forward period for NOLs arising prior to 2017, federal NOLs generated in tax years from 2018, 2019 and 2020 to be carried back for five years and no expiry limitations for NOLs that arose in 2018 and subsequent years. However, unlimited and long expiry limitations for NOLs are not expected to have a material impact on the recoverability of the net deferred tax assets as management concluded that there was limited recoverability of the net deferred tax assets in the US and the UK as a result of the comprehensive strategic review announced on October 27, 2022, primarily due to limited future taxable income against which deferred tax assets could be utilized.

Tax benefits associated with share-based compensation

in	2022	2021	2020
Tax benefits (CHF million)			
Tax benefits recorded in the consolidated statements of operations ¹	221	234	264

¹ Calculated at the statutory tax rate before valuation allowance considerations.

- Refer to "Note 30 – Employee deferred compensation" for further information on share-based compensation.

If, upon settlement of share-based compensation, the tax deduction exceeds the cumulative compensation cost that the Group has recognized in the consolidated financial statements, the utilized tax benefit associated with any excess deduction is considered a "windfall" and recognized in the consolidated statements of operations and reflected as an operating cash inflow in the consolidated statements of cash flows. If, upon settlement, the tax deduction is lower than the cumulative compensation cost that the Group has recognized in the consolidated financial statements, the tax charge associated with the lower deduction is considered a "shortfall". Tax charges arising on shortfalls are recognized in the consolidated statements of operations.

Uncertain tax positions

US GAAP requires a two-step process in evaluating uncertain income tax positions. In the first step, an enterprise determines whether it is more likely than not that an income tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. Income tax positions meeting the more-likely-than-not recognition threshold are then measured to determine the amount of benefit eligible for recognition in the consolidated financial statements. Each income tax position is measured at the largest amount of tax benefit that is more likely than not to be realized upon ultimate settlement.

Reconciliation of gross unrecognized tax benefits

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Movements in gross unrecognized tax benefits (CHF million)			
Balance at beginning of period	425	382	595
Increases in unrecognized tax benefits as a result of tax positions taken during a prior period	239	23	14
Decreases in unrecognized tax benefits as a result of tax positions taken during a prior period	(434)	(35)	(249)
Increases in unrecognized tax benefits as a result of tax positions taken during the current period	46	54	90
Decreases in unrecognized tax benefits as a result of tax positions taken during the current period	(41)	0	0
Decreases in unrecognized tax benefits relating to settlements with tax authorities	(4)	0	(3)
Reductions to unrecognized tax benefits as a result of a lapse of the applicable statute of limitations	(15)	(6)	(17)
Other (including foreign currency translation)	11	7	(48)
Balance at end of period	227	425	382
of which, if recognized, would affect the effective tax rate	227	425	382

Interest and penalties

<small>in</small>	<u>2022</u>	<u>2021</u>	<u>2020</u>
Interest and penalties (CHF million)			
Interest and penalties recognized in the consolidated statements of operations	(5)	3	(16)
Interest and penalties recognized in the consolidated balance sheets	59	64	61

Interest and penalties are reported as tax expense. The Group is currently subject to ongoing tax audits, inquiries and litigation with the tax authorities in a number of jurisdictions, including Brazil, Germany, Switzerland, the UK and the US. Although the timing

of completion is uncertain, it is reasonably possible that some of these will be resolved within 12 months of the reporting date. It is reasonably possible that there will be a decrease of between zero and CHF 14 million in unrecognized tax benefits within 12 months of the reporting date.

The Group remains open to examination from federal, state, provincial or similar local jurisdictions from the following years onward in these major countries: Switzerland – 2020 (federal and Zurich cantonal level); Brazil – 2017; the UK – 2012; and the US – 2010.

30 Employee deferred compensation

Payment of deferred compensation to employees is determined by the nature of the business, role, location and performance of the employee. Unless there is a contractual obligation, granting deferred compensation is solely at the discretion of the Compensation Committee and senior management. Replacement awards granted as part of a contractual obligation are typically used to compensate new senior employees for forfeited awards from previous employers upon joining the Group. It is the Group's policy not to make multi-year guarantees. The Group fully covered its share delivery obligations through market purchases in 2022, 2021 and 2020.

Compensation expense recognized in the consolidated statement of operations for share-based and other awards that were granted as deferred compensation is recognized in accordance with the specific terms and conditions of each respective award and is primarily recognized over the future requisite service and vesting period, which is determined by the plan, retirement eligibility of employees and certain other terms. All deferred compensation plans are subject to restrictive covenants, which generally include non-compete and non-solicit provisions. Compensation expense for share-based and other awards that were granted as deferred compensation also includes the current estimated outcome of applicable performance criteria, estimated future forfeitures and mark-to-market adjustments for certain cash awards that are still outstanding.

Deferred compensation expense

The following tables show the compensation expense for deferred compensation awards granted in 2022 and prior years that was recognized in the consolidated statements of operations during 2022, 2021 and 2020, the total shares delivered, the estimated unrecognized compensation expense for deferred compensation awards granted in 2022 and prior years outstanding as of December 31, 2022 and the remaining requisite service period over which the estimated unrecognized compensation expense will be recognized. The recognition of compensation expense for the deferred compensation awards granted in February 2023 began in 2023 and thus had no impact on the 2022 consolidated financial statements.

Deferred compensation expense

in	2022	2021	2020
Deferred compensation expense (CHF million)			
Share awards	307	482	573
Performance share awards	(3) ¹	290	448
Strategic Delivery Plan	248	—	—
Contingent Capital Awards	(3)	202	255
Cash awards	637	350	398
Retention awards	174	123	43
Total deferred compensation expense	1,360	1,447	1,717
Total shares delivered (million)			
Total shares delivered	60.3	58.5	50.7

1 Included downward adjustment applied to outstanding performance share awards.

The estimated unrecognized compensation expense was based on the fair value of each award on the grant date and included the current estimated outcome of relevant performance criteria and estimated future forfeitures but no estimate for future mark-to-market adjustments.

Estimated unrecognized deferred compensation

end of	2022
Estimated unrecognized compensation expense (CHF million)	
Share awards	203
Performance share awards	52
Strategic Delivery Plan	254
Contingent Capital Awards	55
Cash awards	586
Retention awards	343
Total	1,493
Aggregate remaining weighted-average requisite service period (years)	
Aggregate remaining weighted-average requisite service period	1.3

Does not include the estimated unrecognized compensation expense relating to grants made in 2023 for 2022.

Share awards

Deferred compensation awards are awarded to employees with total compensation of CHF/USD 250,000 or the local currency equivalent or higher. Each share award granted entitles the holder of the award to receive one Group share, subject to service conditions. Share awards vest over three years with one third of the share awards vesting on each of the three anniversaries of the grant date (ratable vesting), with the exception of awards granted to individuals classified as material risk takers (MRTs), risk manager MRTs or senior managers or equivalents under the requirements of EU Capital Requirements Directive V and UK Investment Firms Prudential Regime. Share awards granted to MRTs vest over four years with one quarter of the award vesting on each of the four anniversaries of the grant date. Share awards granted to risk manager MRTs vest over five years with one fifth of the award vesting on each of the five anniversaries of the grant date. Share awards granted to senior managers vest over seven years, with one fifth of the award vesting on each of the

third to seventh anniversaries of the grant date. Share awards are expensed over the service period of the awards. The value of the share awards is solely dependent on the Group share price at the time of delivery.

The Group's share awards include other awards, such as blocked shares and special awards, which may be granted to new employees. Other share awards entitle the holder to receive one Group share and are generally subject to continued employment with the Group, contain restrictive covenants and cancellation provisions and generally vest between zero and five years.

In order to comply with the requirements of EU Capital Requirements Directive V and UK Investment Firms Prudential Regime and other applicable remuneration regulations, employees who hold key roles in respect of certain Group subsidiaries receive shares that are subject to transfer restrictions for 50% of the amount that would have been paid to them in cash. These shares are vested at the time of grant but remain blocked, that is, subject to transfer restrictions, for either six months or one year from the date of grant, depending on the location.

Share award activities

	2022		2021		2020	
	Number of share awards in million	Weighted-average grant-date fair value in CHF	Number of share awards in million	Weighted-average grant-date fair value in CHF	Number of share awards in million	Weighted-average grant-date fair value in CHF
Share awards						
Balance at beginning of period	143.8	11.27	126.3	11.86	110.5	13.46
Granted	79.8 ¹	6.07	86.4	11.17	69.1	10.61
Settled	(61.1)	11.20	(53.3)	12.44	(47.9)	13.76
Forfeited	(15.1)	10.32	(15.6)	11.52	(5.4)	11.72
Balance at end of period	147.4	8.58	143.8	11.27	126.3	11.86
of which vested	25.9	—	13.1	—	13.5	—
of which unvested	121.5	—	130.7	—	112.8	—

1 Included an adjustment for share awards granted in the fourth quarter of 2022 to compensate for the proportionate dilution of Group shares resulting from the rights offering approved on November 28, 2022. The number of deferred share-based awards held by each individual was increased by 5.64%. The terms and conditions of the adjusted shares were the same as the existing share-based awards, thereby ensuring that holders of the awards were neither advantaged nor disadvantaged by the additional shares granted.

Performance share awards

Performance share awards will no longer be used as a form of deferred compensation award for the 2022 performance year and onwards. In prior years, managing directors and all material risk takers and controllers (employees whose activities are considered to have a potentially material impact on the Group's risk profile) received a portion of their deferred variable compensation in the form of performance share awards. Performance share awards are similar to share awards, except that the full balance of outstanding performance share awards, are subject to performance-based malus provisions.

Outstanding performance share awards granted for prior years are subject to a downward adjustment in the event of a divisional loss by the division in which the employees worked as of December 31, 2022, or a negative ROE of the Group, whichever results in a larger adjustment. For employees in corporate functions and the Asset Resolution Unit, the downward adjustment only applies

in the event of a negative ROE of the Group and is not linked to the performance of the divisions. The basis for the ROE calculation may vary from year to year, depending on the Compensation Committee's determination for the year in which the performance shares are granted. A downward adjustment has been applied to outstanding performance share awards, reflecting the negative Group ROE and full year divisional loss in the Investment Bank for 2022.

Performance share awards granted for previous years

For compensation year	2022	2021	2020
Performance shares awarded (million)	0.0	19.4	37.8
Value of performance shares awarded (CHF million)	0	161	493
Fair value of each performance share awarded (CHF) ¹	0.00	8.61	12.59

1 Based on the Group's share price on the grant date.

Performance share award activities

	2022		2021		2020	
	Number of performance share awards in million	Weighted-average grant-date fair value in CHF	Number of performance share awards in million	Weighted-average grant-date fair value in CHF	Number of performance share awards in million	Weighted-average grant-date fair value in CHF
Performance share awards						
Balance at beginning of period	77.2	11.66	91.7	11.66	72.4	13.38
Granted	3.5 ^{1,2}	(10.66) ²	28.5	12.70	50.9	10.63
Settled	(31.0)	11.70	(34.5)	12.50	(29.0)	14.13
Forfeited	(5.1)	10.96	(8.5)	11.78	(2.6)	11.62
Balance at end of period	44.6	9.94	77.2	11.66	91.7	11.66
of which vested	14.2	—	11.2	—	10.4	—
of which unvested	30.4	—	66.0	—	81.3	—

- Included an adjustment for performance share awards granted in the fourth quarter of 2022 to compensate for the proportionate dilution of Group shares resulting from the rights offering approved on November 28, 2022. The number of deferred share-based awards held by each individual was increased by 5.64%. The terms and conditions of the adjusted shares were the same as the existing share-based awards, thereby ensuring that holders of the awards were neither advantaged nor disadvantaged by the additional performance shares granted.
- Included downward adjustment applied to outstanding performance share awards.

Strategic Delivery Plan

The Strategic Delivery Plan (SDP) was a one-time share-based award granted in February 2022 to most managing directors and directors to incentivize the longer-term delivery of the Group's strategic plan. SDP awards are subject to service conditions and performance-based metrics over the course of 2022-2024. SDP awards are scheduled to vest on the third anniversary of the grant date, with the exception of awards granted to individuals classified as MRTs, risk manager MRTs or senior managers or equivalents under the requirements of EU Capital Requirements Directive V and UK Investment Firms Prudential Regime. SDP awards granted to MRTs vest in equal annual installments over two years, commencing on the third anniversary from the grant date. SDP awards granted to risk manager MRTs vest in equal annual installments over three years, while SDP awards granted to senior managers vest in equal annual installments over five years, both commencing on the third anniversary from the grant date. Prior to settlement, the principal amount of the SDP awards will be written down to zero and forfeited if any of the following triggering events exist at the end of 2022, 2023 or 2024:

- The Group's reported common equity tier 1 (CET1) capital ratio below the FINMA-prescribed minimum + 50 basis points; or
- The Group's reported CET1 leverage ratio falls below 3.7%.

In addition, the Compensation Committee will review and assess the overall success of the delivery of the strategic plan at a Group level over the three-year period (2022-2024) and may increase the SDP awards up to a maximum of 50% of the initial award amount. Half of the potential uplift would be granted if a predetermined average Group return on tangible equity threshold is achieved, measured over 2023 and 2024. The other half of the uplift may be awarded based on the Compensation Committee's assessment of risk management and other strategic non-financial achievements.

Strategic Delivery Plan activities

	2022	
	Number of Strategic Delivery Plan awards in million	Weighted-average grant-date fair value in CHF
Share Delivery Plan		
Balance at beginning of period	—	—
Granted	65.9 ¹	8.11
Settled	0.0	0.00
Forfeited	(4.0)	8.40
Balance at end of period	61.9	8.09
of which vested	7.0	—
of which unvested	54.9	—

- Included an adjustment for Strategic Delivery Plan awards granted in the fourth quarter of 2022 to compensate for the proportionate dilution of Group shares resulting from the rights offering approved on November 28, 2022. The number of deferred share-based awards held by each individual was increased by 5.64%. The terms and conditions of the adjusted shares were the same as the existing share-based awards, thereby ensuring that holders of the awards were neither advantaged nor disadvantaged by the additional Strategic Delivery Plan shares granted.

Contingent Capital Awards

Contingent Capital Awards (CCA) will no longer be used as a form of deferred compensation award for the 2022 performance year and onwards. The Group granted CCA of CHF 75 million and CHF 253 million in 2022 and 2021, respectively, to managing directors and directors as part of the 2021 and 2020 deferred variable compensation and have rights and risks similar to those of certain contingent capital instruments issued by the Group in the market. CCA are scheduled to vest on the third anniversary of the grant date, other than those granted to individuals classified as MRTs, risk manager MRTs or senior managers or equivalents under the requirements of EU Capital Requirements Directive V and UK Investment Firms Prudential Regime. CCA granted to MRTs, risk manager MRTs and

senior managers vest on the fourth, fifth and seventh anniversaries of the grant

date, respectively. CCA awards will be expensed over the vesting period. CCA generally provide a conditional right to receive semi-annual cash payments of interest equivalents until settled, with rates being dependent upon the vesting period and currency of denomination. CCA granted in 2022 and 2021 that vest four, five or seven years from the date of grant are not eligible for semi-annual cash payments of interest equivalents. CCA granted to certain regulated employees that vest over three years are not eligible for semi-annual cash payments of interest equivalents.

- CCA granted in 2022 and 2021 that are denominated in US dollars and vest three years from the date of grant receive interest equivalents at a rate of 4.18% and 3.60% respectively, per annum plus the daily compounded (spread exclusive) US dollar Secured Overnight Financing Rate (SOFR); and
- CCA granted in 2022 and 2021 that are denominated in Swiss francs and vest three years from the date of grant receive interest equivalents at a rate of 3.44% and 3.06% respectively, per annum plus the daily compounded (spread exclusive) Swiss franc Swiss Average Rate Overnight (SARON).

The rates were set in line with market conditions at the time of grant and existing high-trigger and low-trigger contingent capital instruments that the Group has issued.

At settlement, employees will receive either a contingent capital instrument or a cash payment based on the fair value of the CCA. The fair value will be determined by the Group. In the case of a cash settlement, the CCA award will be converted into the local currency of each respective employee.

CCA have loss-absorbing features such that prior to settlement, the principal amount of the CCA would be written down to zero and forfeited if any of the following trigger events were to occur:

- the Group's reported common equity tier 1 (CET1) ratio falls below 7%; or
- FINMA determines that cancellation of the CCA and other similar contingent capital instruments is necessary, or that the Group requires public sector capital support, in either case to prevent it from becoming insolvent or otherwise failing.

Cash awards

Cash awards include certain special awards as well as voluntary deferred compensation plans and employee investment plans. For certain special awards, compensation expense was primarily driven by their vesting schedule; for other cash awards, compensation expense was driven by mark to market and performance adjustments, as the majority of the awards are fully vested.

Deferred fixed cash awards

The Group granted deferred fixed cash compensation during 2022, 2021 and 2020 of CHF 294 million, CHF 259 million and CHF 120 million, respectively, in the Investment Bank, Wealth Management and Asset Management divisions. This

compensation has been expensed over a three-year vesting period from the grant date. Amortization of this compensation in 2022 totaled CHF 214 million, of which CHF 125 million was related to awards granted in 2022.

Upfront cash awards

The Group granted upfront cash awards (UCA) of CHF 799 million and CHF 59 million in 2022 and 2021, respectively. These awards are subject to repayment (clawback) by the employee in the event of voluntary resignation, termination for cause or in connection with other specified events or conditions within three years of the award grant. The amount subject to repayment is reduced in equal monthly installments during the three-year period following the grant date. The expense recognition will occur over the three-year vesting period, subject to service conditions. Amortization of this compensation in 2022 totaled CHF 387 million, of which CHF 355 million was related to awards granted in 2022.

Retention awards

The Group granted deferred cash and share retention awards during 2022 of CHF 367 million, mainly in the Investment Bank division. During 2021 and 2020, the Group granted deferred cash and share retention awards of CHF 395 million and CHF 40 million, respectively. These awards are expensed over the applicable vesting period from the grant date. Amortization of these awards in 2022 totaled CHF 174 million, of which CHF 69 million was related to awards granted in 2022.

Awards granted for the compensation year 2022

Share awards

On February 10, 2023, the Group granted 102.8 million share awards with a total value of CHF 288 million. The estimated unrecognized compensation expense of CHF 262 million was determined based on the fair value of the awards on the grant date, includes the current estimated future forfeitures and will be recognized over the vesting period, subject to early retirement rules. The majority of share awards granted include the right to receive dividend equivalents on vested shares.

The number of share awards granted to employees was generally determined by dividing the deferred component of variable compensation being granted as share awards by the average price of a Group share over the ten consecutive trading days which ended on February 23, 2023. The fair value of each share award was CHF 2.87, the Group share price on the grant date.

Share awards granted for previous years

For compensation year	2022	2021	2020
Shares awarded (million)	102.8	27.7	44.6
Value of shares awarded (CHF million)	288	216	592
Fair value of each share awarded (CHF) ¹	2.87	8.61	12.59

¹ Based on the Group's share price on the grant date.

On February 10, 2023, the Group granted 6.1 million blocked shares with a total value of CHF 16 million that vested immediately upon grant, have no future service requirements and were attributed to services performed in 2022.

Blocked share awards granted for previous years

For compensation year	2022	2021	2020
Blocked shares awarded (million)	6.1	5.0	2.6
Value of shares awarded (CHF million)	16	41	35

Upfront cash awards

In February 2023, certain managing directors and directors were granted CHF 344 million of UCA as part of their 2022 variable compensation.

Awards granted in 2023

Transformation Awards

In February 2023, the Group granted Transformation Awards, with a total award value of CHF 350 million, to employees identified as being critical to the delivery of the transformation strategy. Of the total award value, CHF 70 million relates to the Executive Board and is subject to approval at the AGM 2023.

For employees other than the Executive Board, the Transformation Award was granted in the form of both a deferred cash award and a deferred share award subject to performance conditions. For Executive Board members, the Transformation Award, subject to shareholder approval, was granted as 100% in the form of a deferred shares.

Transformation Awards are expensed over the service period of the award.

Transformation cash awards vest over two years with one half of the cash awards vesting on each of first and second anniversaries of the grant date (ratable vesting), with the exception of awards granted to individuals classified as MRTs, risk manager MRTs or senior managers or equivalents under the requirements of EU Capital Requirements Directive V and UK Investment Firms Prudential Regime. Transformation Awards granted to MRTs vest over four years with one quarter of the award vesting on each of the four anniversaries of the grant date. Transformation Awards granted to risk manager MRTs vest over five years with one fifth of the award vesting on each of the five anniversaries of the grant date. Transformation Awards granted to senior managers vest over seven years, with one fifth of the award vesting on each of the third to seventh anniversaries of the grant date.

Transformation share-based awards are scheduled to vest if the share price is at CHF 3.82 or higher on December 31, 2025, subject to a cap of three times the initial award grant value. This is applied after taking into account the performance targets, the reported return on tangible equity and cost base for the Group.

Other awards

In the first quarter of 2023, the Group granted additional compensation awards to certain employees. Share-based awards of CHF 38 million and deferred fixed cash compensation of CHF 30 million were granted to key employees. These awards will be expensed over a three-year vesting period from the grant date. In addition, Supplemental Cash Allowance Awards of CHF 114 million were granted to certain employees and will be expensed over a nine-month vesting period from the grant date.

31 Related parties

Parties are considered to be related if one party has the ability to control the other party or exercise significant influence over the other party in making financial or operational decisions, or if another party controls both. The Group's related parties include key management personnel, close family members of key management personnel and entities that are controlled, significantly influenced, or for which significant voting power is held, by key management personnel or their close family members. Key management personnel are those individuals having authority and responsibility for planning, directing and controlling the activities of the Group, that is, members of the Executive Board and the Board of Directors.

Banking relationships

The Group is a global financial services provider. Many of the members of the Executive Board and the Board of Directors, their close family members or companies associated with them maintain banking relationships with the Group. The Group or any of its banking subsidiaries may from time to time enter into financing and other banking agreements with companies in which current members of the Executive Board or the Board of Directors have a significant influence as defined by the SEC, such as holding executive and/or board level roles in these companies. With the exception of the transactions described below, relationships with members of the Executive Board or the Board of Directors and such companies were in the ordinary course of business and are entered into at prevailing market conditions. Also, unless otherwise noted, all loans to members of the Executive Board, members of the Board of Directors, their close family members or companies associated with them were made in the ordinary course of business, were made on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other persons and did not involve more than the normal risk of collectability or present other unfavorable features. As of December 31, 2022, 2021 and 2020, there were no loan exposures to such related parties that were not made in the ordinary course of business and at prevailing market conditions.

CS First Boston

On February 9, 2023, the Group announced that it had taken further important steps to progress the carve-out of CS First Boston as a leading capital markets and advisory business through the acquisition of The Klein Group LLC, the investment banking business as well as the registered broker-dealer of M. Klein & Company LLC (the seller). The Group also announced the appointment of former Board of Directors member Michael Klein as CEO of Banking and regional CEO of Americas, as well as designated CEO of CS First Boston and a member of the Executive Board. Both Michael Klein's appointment to the Executive Board and the acquisition of The Klein Group LLC are subject to regulatory approval. The purchase price is USD 175 million. To align interests with the Group, the seller will receive a convertible

note and a warrant. The note will provide annual payments and convert into, and the warrant entitles the seller to subscribe to, CS First Boston shares at a qualified IPO or other liquidity event, at the then-valuation of CS First Boston, less a customary discount. The principal amount of the convertible note is expected to be USD 100 million, with the balance being paid in cash, dependent on the amount of taxes to be paid by the seller at closing. The net present value of the transaction to the Group is expected to be approximately USD 210 million, which also includes interest cost, annual payments on the note and other payments that may in the future become payable in respect of this transaction. Deutsche Bank AG provided a fairness opinion to the Board of Directors in connection with the acquisition. The transaction is expected to close in the first half of 2023. Following the acquisition's closing, The Klein Group LLC is expected to be fully integrated into CS First Boston. The Group will retain control over the ultimate scope and structure of CS First Boston, including options to attract third-party capital in the future, as announced at the strategy update on October 27, 2022.

In addition, on October 27, 2022, the Group and The Klein Group LLC entered into an engagement letter, under which The Klein Group LLC has been engaged to provide strategic advice and assistance to the Group in connection with the proposed carve-out of CS First Boston, whereby it was agreed that Michael Klein would devote significant time and attention to the services to be provided by The Klein Group LLC to the Group. The purpose of this engagement was to secure Michael Klein's services in relation to the establishment of CS First Boston in the time gap between October 27, 2022 and the effective date of his employment contract as a member of the Executive Board (which is contingent on regulatory approval) and to obtain the support of The Klein Group LLC until closing of the acquisition. The advisory fee under such engagement was USD 10 million.

Related party loans

Executive Board and Board of Directors loans

The majority of loans outstanding to members of the Executive Board and the Board of Directors are mortgages or loans against securities.

All mortgage loans to members of the Executive Board are granted either with variable or fixed interest rates over a certain period. Typically, mortgages are granted for periods of up to ten years. Interest rates applied are based on refinancing costs plus a margin, and interest rates and other terms are consistent with those applicable to other employees. Loans against securities are granted at interest rates and on terms applicable to such loans granted to other employees. The same credit approval and risk assessment procedures apply to members of the Executive Board as for other employees. The highest loan outstanding to an Executive Board member was CHF 4 million to Ulrich Körner as of December 31, 2022.

Executive Board and Board of Directors loans

in	2022	2021	2020
Executive Board loans (CHF million)			
Balance at beginning of period	<u>18</u> ¹	<u>13</u>	<u>32</u>
Additions	1	10 ²	5
Reductions	(13)	(5) ²	(24)
Balance at end of period	<u>6</u> ¹	<u>18</u> ²	<u>13</u>
Board of Directors loans (CHF million)			
Balance at beginning of period	<u>7</u> ³	<u>9</u>	<u>9</u>
Additions	0	2	0
Reductions	(3)	(4)	0
Balance at end of period	<u>4</u> ³	<u>7</u>	<u>9</u>

- 1 The number of individuals with outstanding loans was eight at the beginning of the year and four at the end of the year.
- 2 Revised.
- 3 The number of individuals with outstanding loans was three at the beginning of the year and two at the end of the year.

Equity method investees loans

The Group or its subsidiaries grant loans to equity method investees in the normal course of business.

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- Refer to “Note 41 – Significant subsidiaries and equity method investments” for a list of equity method investments.

Loans made by the Group or any subsidiaries to equity method investees

in	2022	2021	2020
Loans to equity method investees (CHF million)			
Balance at beginning of period	<u>378</u>	<u>414</u>	<u>299</u>
Net borrowings/(repayments)	29	(36)	115
Balance at end of period	<u>407</u>	<u>378</u>	<u>414</u>

Liabilities due to own pension plans

Liabilities due to the Group’s own defined benefit pension plans as of December 31, 2022 and 2021 of CHF 254 million and CHF 331 million, respectively, were reflected in various liability accounts in the Group’s consolidated balance sheets.

The Group sponsors defined contribution pension plans, defined benefit pension plans and other post-retirement defined benefit plans.

Defined contribution pension plans

Defined contribution plans provide each participant with an individual account. The benefits to be provided to a participant are solely based on the contributions made to that employee's account and are affected by income, expenses and gains and losses allocated to the account. As such, there are no stipulations of a defined annuity benefit at retirement and the participants bear the full actuarial as well as investment risk.

The Group contributes to various defined contribution pension plans primarily in Switzerland, the US and the UK as well as other countries throughout the world. During 2022, 2021 and 2020, the Group contributed to these plans and recognized as expense CHF 241 million, CHF 263 million and CHF 299 million, respectively. This includes expenses of CHF 81 million, CHF 100 million and CHF 143 million in 2022, 2021 and 2020, respectively, related to the Swiss defined contribution pension plan which took effect on January 1, 2020. Contributions to the Swiss defined contribution plan are made by employees and the Group. Assets from this plan are paid out as a lump sum on retirement.

Defined benefit pension and other post-retirement defined benefit plans

Defined benefit pension plans

Defined benefit pension plans are pension plans that define specific benefits for an employee upon that employee's retirement. These benefits are usually determined by taking into account the employee's salary, years of service and age of retirement. Retirees bear neither the actuarial risk (for example, the risk that the retirees of the plan live longer than expected), nor the investment risk (that is, that plan assets invested and associated returns will be insufficient to meet the expected benefits due to low or negative returns on contributions). The Group's funding policy for these plans is in accordance with local laws and tax requirements.

Swiss pension plan

The Group's most significant defined benefit pension plan, the Credit Suisse Swiss Pension Plan (Swiss pension plan), is located and covers its employees in Switzerland and is set up as a trust domiciled in Zurich. The Swiss pension plan provides benefits in the event of retirement, death and disability and meets or exceeds the minimum benefits required under the Swiss Federal Law on Occupational Retirement, Survivors' and Disability Pension Plans (BVG). Benefits in the Swiss pension plan are determined on the basis of the accumulated employer and employee contributions and accumulated interest credited. The Swiss pension plan is treated as a defined benefit plan under US GAAP, mainly due to a guaranteed minimum return on contributions and guaranteed

payment of lifetime pensions. As of December 31, 2022 and 2021, the Swiss pension plan comprised 62% and 64%, respectively, of all the Group's employees participating in defined benefit plans, 88% and 84%, respectively, of the fair value of plan assets, and 87% and 84%, respectively, of the pension benefit obligation of the Group's defined benefit plans.

Employee contributions in the savings section depend on their age and are determined as a percentage of the pensionable salary. The employees can select between three different levels of contributions which vary between 5% and 14% depending on their age. The Group's contribution varies between 7.5% and 25% of the pensionable salary depending on the employee's age.

The Swiss Federal council sets the minimum statutory interest rate on savings balances on an annual basis that applies to the BVG minimum pensionable salary (1.0% as of January 1, 2023 and 2022). The statutory interest rate on savings balances does not apply to extra mandatory benefits. The Board of Trustees of the Swiss pension fund sets the interest rate to be applied on the accumulated savings balance on an annual basis.

When employees retire, their savings balance is converted into an annuity and the conversion rate is the percentage used to convert the assets accrued in the Swiss pension plan to an annual lifetime retirement pension. The level of the conversion rate depends on the life expectancy of future retirees and on the long-term potential for returns in the capital markets. The Board of Trustees of the Swiss pension plan has the responsibility to set the conversion rates for the plan. Decisions on conversion rates are to be set for a planning horizon of at least eight years.

International pension plans

Various defined benefit pension plans cover the Group's employees outside Switzerland. These plans provide benefits in the event of retirement, death, disability or termination of employment. Retirement benefits under the international pension plans depend on age, contributions and salary. The Group's principal defined benefit pension plans outside Switzerland are located in the US and in the UK. Both of these plans are funded, closed to new participants and have ceased accruing new benefits. Smaller defined benefit pension plans, both funded and unfunded, are operated in other locations.

Other post-retirement defined benefit plan

In the US, the Group has a defined benefit plan that provides post-retirement benefits other than pension benefits that primarily focus on health and welfare benefits for certain retired employees. In exchange for the current services provided by the employee, the Group promises to provide health and welfare benefits after the employee retires. The Group's obligation for that compensation is incurred as employees render the services necessary to earn their post-retirement benefits.

Components of net periodic benefit costs

in	Defined benefit pension plans						Other post-retirement defined benefit plan		
	Switzerland			International			International		
	2022	2021	2020	2022	2021	2020	2022	2021	2020
Net periodic benefit costs (CHF million)									
Service costs on benefit obligation	242	224	203	17	16	15	0	0	0
Interest costs on benefit obligation	41	10	20	59	51	68	3	2	4
Expected return on plan assets	(439)	(421)	(352)	(67)	(65)	(85)	0	0	0
Amortization of recognized prior service cost/(credit)	(88)	(121)	(167)	1	1	1	0	0	0
Amortization of recognized actuarial losses/(gains)	280	355	334	9	14	13	1	1	1
Settlement losses/(gains)	6	10	8	11	8	(1)	0	0	0
Curtailement losses/(gains)	(11)	2	(10)	0	0	0	0	0	0
Special termination benefits	7	16	8	0	0	0	0	0	0
Net periodic benefit costs/(credits)	38	75	44	30	25	11	4	3	5

Service costs on benefit obligation are reflected in compensation and benefits. Other components of net periodic benefit costs are reflected in general and administrative expenses or in restructuring expenses.

Net periodic benefit costs of defined benefit plans

The net periodic benefit costs for defined benefit pension and other post-retirement defined benefit plans are the costs of the respective plan for a period during which an employee renders services. The actual amount to be recognized is determined using the standard actuarial methodology which considers, among other factors, current service cost, interest cost, expected return on plan assets and the amortization of both prior service costs/(credits) and actuarial losses/(gains) recognized in AOCI.

Service costs on benefit obligation reflected in compensation and benefits – other for 2022, 2021 and 2020 were CHF 259 million, CHF 240 million and CHF 218 million, respectively.

As part of its strategic plan, the Group has launched a number of cost efficiency measures, including headcount reduction. This resulted in curtailment gains of CHF 11 million in 2022, curtailment losses of CHF 2 million in 2021 and curtailment gains of CHF 10 million in 2020. Additional costs of CHF 6 million, CHF 10 million and CHF 8 million in 2022, 2021 and 2020, respectively, related to the settlement of the pension obligation for employees in Switzerland whose employment has effectively been terminated or who have left the Group due to a sale of their business. Special termination benefit costs of CHF 7 million, CHF 16 million and CHF 8 million have been recognized in 2022, 2021 and 2020, respectively, relating to early retirements in Switzerland in the context of the cost efficiency measures.

Benefit obligation

The benefit obligation is expressed as either accumulated benefit obligation (ABO) or PBO. While the ABO refers to the actuarial present value based on employee services rendered prior to that date and takes into account current and past compensation levels, the PBO also applies an assumption as to future compensation levels.

The “Obligations and funded status of the plans” table shows the changes in the PBO, the ABO, the fair value of plan assets and the amounts recognized in the consolidated balance sheets for the defined benefit pension and other post-retirement defined benefit plans.

US GAAP requires an employer to recognize the funded status of the defined benefit pension and other post-retirement defined benefit plans on the balance sheet. The funded status of these plans is determined as the difference between the fair value of plan assets and the PBO. The funded status may vary from year to year due to changes in the fair value of plan assets and variations of the PBO following changes in the underlying assumptions and membership data used to determine the PBO. In 2022 and 2021, the curtailments, settlements and special termination benefits in Switzerland, which impacted the PBO, related to the headcount reduction in the context of the cost efficiency measures.

Obligations and funded status of the plans

in / end of	Defined benefit pension plans				Other post-retirement defined benefit plan	
	Switzerland		International		International	
	2022	2021	2022	2021	2022	2021
PBO (CHF million) ¹						
Beginning of the measurement period	16,055	16,102	3,032	3,482	140	156
Plan participant contributions	150	146	0	0	0	0
Service cost	242	224	17	16	0	0
Interest cost	41	10	59	51	3	2
Plan amendments	86	0	4	(4)	0	0
Settlements	(33)	(48)	(37)	(448)	0	0
Curtailments	(17)	8	0	0	0	0
Special termination benefits	7	16	0	0	0	0
Actuarial losses/(gains)	(1,975)	321	(907)	(100)	(27)	(14)
Benefit payments	(783)	(724)	(72)	(66)	(11)	(10)
Exchange rate losses/(gains)	0	0	(187)	101	2	6
End of the measurement period	13,773	16,055	1,909	3,032	107	140
Fair value of plan assets (CHF million)						
Beginning of the measurement period	19,296	18,000	3,802	4,212	0	0
Actual return on plan assets	(1,565)	1,610	(1,132)	(45)	0	0
Employer contributions	266	312	17	17	11	10
Plan participant contributions	150	146	0	0	0	0
Settlements	(33)	(48)	(37)	(448)	0	0
Benefit payments	(783)	(724)	(72)	(66)	(11)	(10)
Exchange rate gains/(losses)	0	0	(262)	132	0	0
End of the measurement period	17,331	19,296	2,316	3,802	0	0
Funded status recognized (CHF million)						
Funded status of the plan – overfunded/(underfunded)	3,558	3,241	407	770	(107)	(140)
Funded status recognized in the consolidated balance sheet as of December 31	3,558	3,241	407	770	(107)	(140)
Total amount recognized (CHF million)						
Noncurrent assets	3,558	3,241	559	974	0	0
Current liabilities	0	0	(9)	(7)	(10)	(10)
Noncurrent liabilities	0	0	(143)	(197)	(97)	(130)
Net amount recognized in the consolidated balance sheet as of December 31	3,558	3,241	407	770	(107)	(140)
ABO (CHF million) ²						
End of the measurement period	13,523	15,275	1,887	3,001	107	140

1 Including estimated future salary increases.

2 Excluding estimated future salary increases.

The net amount recognized in the consolidated balance sheets as of December 31, 2022 and 2021 for the defined benefit pension plans was an overfunding of CHF 3,965 million and CHF 4,011 million, respectively.

The remeasurement loss on the Swiss pension plan recorded as of December 31, 2022 consisted of losses on the asset portfolio of CHF 2,004 million, partially offset by gains on the PBO of CHF 1,975 million due to changes in financial and demographic assumptions, primarily an increase in the discount rate. The remeasurement gain on the Swiss pension plan recorded as of December 31, 2021 consisted of gains on the asset portfolio of CHF 1,189 million, partially offset by losses on the PBO of CHF 321 million due to changes in financial and demographic

assumptions, primarily an increase in the interest rate on savings balances.

The remeasurement loss on the international pension plans recorded as of December 31, 2022 consisted of losses on the asset portfolio of CHF 1,199 million, partially offset by gains on the PBO of CHF 907 million due to changes in financial and demographic assumptions, primarily an increase in the discount rate and updates on the membership data. The remeasurement loss on the international pension plans recorded as of December 31, 2021 consisted of losses on the asset portfolio of CHF 110 million, partially offset by gains on the PBO of CHF 100 million due to changes in financial and demographic assumptions, primarily an increase in the discount rate and updates on the membership data.

The settlements of CHF 448 million on the international plans recorded as of December 31, 2021 mainly related to settlements in the UK, reflecting an enhanced transfer value exercise, and settlements in the US, reflecting a partial sale of pension obligations sold to a third party insurer.

In 2023, the Group expects to contribute CHF 271 million to the Swiss pension plan, CHF 15 million to the international defined

benefit pension plans and CHF 10 million to other post-retirement defined benefit plans.

PBO or ABO in excess of plan assets

The following table shows the aggregate PBO and ABO, as well as the aggregate fair value of plan assets for those plans with PBO in excess of plan assets and those plans with ABO in excess of plan assets as of December 31, 2022 and 2021, respectively.

Defined benefit pension plans in which PBO or ABO exceeded plan assets

December 31	International			
	PBO exceeds fair value of plan assets		ABO exceeds fair value of plan assets	
	2022	2021	2022	2021
PBO/ABO exceeded plan assets (CHF million)				
PBO	820	412	157	403
ABO	804	387	142	380
Fair value of plan assets	669	208	6	200

There were no defined benefit pension plans in Switzerland in which the PBO or the ABO exceeded the plan assets.

Amounts recognized in AOCI and OCI

The following table shows the actuarial gains/(losses) and the prior service credits/(costs), which were recorded in AOCI and subsequently recognized as components of net periodic benefit costs.

Amounts recognized in AOCI, net of tax

end of	Defined benefit pension plans		Other post-retirement defined benefit plan		Total	
	2022	2021	2022	2021	2022	2021
	Amounts recognized in AOCI (CHF million)					
Actuarial gains/(losses)	(2,635)	(2,678)	(6)	(27)	(2,641)	(2,705)
Prior service credits/(costs)	209	362	3	3	212	365
Total	(2,426)	(2,316)	(3)	(24)	(2,429)	(2,340)

The following table shows the changes in OCI due to actuarial gains/(losses), the prior service credits/(costs) recognized in AOCI during 2022 and 2021 as well as the amortization of the aforementioned items as components of net periodic benefit costs for these periods.

Amounts recognized in OCI

in	Defined benefit pension plans			Other post-retirement defined benefit plan			Total net
	Gross	Tax	Net	Gross	Tax	Net	
2022 (CHF million)							
Actuarial gains/(losses)	(321)	101	(220)	27	(7)	20	(200)
Prior service credits/(costs)	(90)	17	(73)	0	0	0	(73)
Amortization of actuarial losses/(gains)	289	(55)	234	1	0	1	235
Amortization of prior service costs/(credits)	(87)	19	(68)	0	0	0	(68)
Immediate recognition due to curtailment/settlement	23	(6)	17	0	0	0	17
Total	(186)	76	(110)	28	(7)	21	(89)
2021 (CHF million)							
Actuarial gains/(losses)	858	(153)	705	14	(3)	11	716
Prior service credits/(costs)	4	(1)	3	0	0	0	3
Amortization of actuarial losses/(gains)	369	(67)	302	1	0	1	303
Amortization of prior service costs/(credits)	(120)	23	(97)	0	0	0	(97)
Immediate recognition due to curtailment/settlement	11	(5)	6	0	0	0	6
Total	1,122	(203)	919	15	(3)	12	931

Assumptions

The measurement of both the net periodic benefit costs and the benefit obligation is determined using explicit assumptions, each of which individually represents the best estimate of a particular future event.

Net periodic benefit cost and benefit obligation assumptions

The assumptions used to determine the benefit obligation as of the measurement date are also used to calculate the net periodic benefit costs for the 12-month period following this date.

The discount rates are determined based on yield curves, constructed from high-quality corporate bonds currently available and observable in the market and are expected to be available during the period to maturity of the pension benefits. In countries where there is no deep market in high-quality corporate bonds with longer durations, the best available market information, including

governmental bond yields and risk premiums, is used to construct the yield curve. Credit Suisse uses the spot rate approach for valuations, whereby individual spot rates on the yield curve are applied to each year's cash flow in measuring the plan's benefit obligation as well as future service costs and interest costs. The assumption pertaining to salary increases is used to calculate the PBO, which is measured using an assumption as to future compensation levels. Credit Suisse estimates the future interest rate on savings balances taking into consideration actions and rates approved by the Board of Trustees of the Swiss pension plan and expected future changes in the interest rate environment. The expected long-term rate of return on plan assets assumption is applied to the market-related value of assets to calculate the expected return on plan assets as a component of the net periodic benefit costs. It is based on long-term expected returns, inflation, interest rates, risk premiums and the pension plan's asset allocation. The estimates take into consideration historical asset category returns.

Weighted-average assumptions used to determine net periodic benefit costs and benefit obligation

December 31	Defined benefit pension plans						Other post-retirement defined benefit plan		
	Switzerland			International			International		
	2022	2021	2020	2022	2021	2020	2022	2021	2020
Net periodic benefit cost (%)									
Discount rate – service costs	0.74	0.63	0.69	3.60	3.22	3.04	—	—	—
Discount rate – interest costs	0.26	0.06	0.13	2.16	1.62	2.39	2.23	1.74	2.77
Salary increases	1.50	1.50	1.50	3.33	2.98	2.84	—	—	—
Interest rate on savings balances	1.50	1.25	0.45	—	—	—	—	—	—
Expected long-term rate of return on plan assets	2.50	2.50	2.10	2.01	1.79	2.37	—	—	—
Benefit obligation (%)									
Discount rate	2.14	0.56	0.40	4.77	2.15	1.67	5.18	2.89	2.55
Salary increases	1.50	1.50	1.50	3.20	3.33	2.98	—	—	—
Interest rate on savings balances	2.50	1.50	1.25	—	—	—	—	—	—

Mortality tables and life expectancies for major plans

December 31		Life expectancy at age 65 for a male member currently				Life expectancy at age 65 for a female member currently			
		aged 65		aged 45		aged 65		aged 45	
		2022	2021	2022	2021	2022	2021	2022	2021
Life expectancy (years)									
Switzerland	BVG 2020 tables ¹	21.7	21.7	23.4	23.3	23.5	23.4	25.1	25.0
UK	SAPS S3 light tables ²	23.5	23.5	24.8	24.7	25.1	25.0	26.5	26.4
US	Pri-2012 mortality tables ³	20.7	20.6	21.9	21.8	22.6	22.5	23.7	23.7

- 1 The BVG 2020 tables were used, which included CMI projections, with a long-term rate of improvement of 1.25% per annum.
- 2 102% of Self-Administered Pension Scheme (SAPS) S3 light tables were used, which included CMI projections, with a long-term rate of improvement of 1.25% per annum.
- 3 The Private retirement plan 2012 (Pri-2012) mortality tables were used, with projections based on the Social Security Administration's intermediate improvement scale.

Mortality assumptions are based on standard mortality tables and standard models and methodologies for projecting future improvements to mortality as developed and published by external independent actuarial societies and actuarial organizations.

Under US GAAP, the assumptions used to value the PBO should always represent the best estimate as of the measurement date. Credit Suisse regularly reviews the actuarial assumptions used to value and measure the defined benefit obligation on a periodic basis as required by US GAAP.

Health care cost assumptions

The health care cost trend is used to determine the appropriate other post-retirement defined benefit costs. In determining those costs, an annual weighted-average rate is assumed in the cost of covered health care benefits.

The following table provides an overview of the assumed health care cost trend rates.

Health care cost trend rates

in / end of	2022	2021	2020
Health care cost trend rate (%)			
Annual weighted-average health care cost trend rate ¹	6.3	6.5	7.0

- 1 The annual health care cost trend rate is assumed to decrease gradually to achieve the long-term health care cost trend rate of 4.5% by 2030.

The annual health care cost trend rate used to determine the net periodic defined benefit costs for 2023 is 6.3%.

Plan assets and investment strategy

Plan assets, which are assets that have been segregated and restricted to provide for plan benefits, are measured at their fair value as of the measurement date.

The Swiss defined benefit pension plan employs a total return investment approach, whereby a diversified mix of debt and equity securities, real estate and alternative investments is used to maximize the long-term return of plan assets while incurring a prudent level of risk. The international plans employ asset liability matching strategies, where the portfolios are mostly invested in debt securities with maturity profiles similar to that of the pension plans' expected future cash flows, with the aim of minimizing interest rate and inflation risk. Risk tolerance is established through careful consideration of plan liabilities, plan funded status

and corporate financial conditions. Investment risk is measured and monitored on an ongoing basis through periodic asset/liability studies and investment portfolio reviews.

As of December 31, 2022 and 2021, the total fair value of Group debt securities included in plan assets of the Group's defined benefit pension plans was CHF 6 million and CHF 5 million, respectively, and the total fair value of Group equity securities and options was CHF 2 million and CHF 3 million, respectively.

Fair value hierarchy of plan assets

- Refer to "Fair value measurement" in Note 36 – Financial instruments for discussion of the fair value hierarchy.

Fair value of plan assets

The following tables present the plan assets measured at fair value on a recurring basis as of December 31, 2022 and 2021 for the Group's defined benefit pension plans.

Plan assets measured at fair value on a recurring basis

end of	2022					2021				
	Level 1	Level 2	Level 3	Assets measured at net asset value per share	Total	Level 1	Level 2	Level 3	Assets measured at net asset value per share	Total
Plan assets at fair value (CHF million)										
Cash and cash equivalents	235	0	0	0	235	313	0	0	0	313
Debt securities	0	7,535	0	0	7,535	0	6,315	0	469	6,784
of which corporates	0	7,535	0	0	7,535	0	6,315	0	469	6,784
Equity securities	0	2,799	0	0	2,799	0	5,264	0	0	5,264
Real estate	0	2,125	1,568	0	3,693	0	2,040	1,514	0	3,554
of which direct	0	0	1,568	0	1,568	0	0	1,514	0	1,514
of which indirect	0	2,125	0	0	2,125	0	2,040	0	0	2,040
Alternative investments	167	309	0	2,593	3,069	491	327	0	2,563	3,381
of which private equity	0	0	0	2,526	2,526	0	0	0	2,431	2,431
of which hedge funds	0	0	0	0	0	0	221	0	0	221
of which other	167	309	0	67	543	491	106	0	132	729
Switzerland	402	12,768	1,568	2,593	17,331	804	13,946	1,514	3,032	19,296
Cash and cash equivalents	28	90	0	0	118	9	101	0	0	110
Debt securities	1,222	522	0	326	2,070	2,328	769	0	434	3,531
of which governments	1,222	44	0	0	1,266	2,328	4	0	0	2,332
of which corporates	0	478	0	326	804	0	765	0	434	1,199
Equity securities	0	61	0	45	106	0	44	0	57	101
Alternative investments	0	(59)	0	0	(59)	0	(27)	0	0	(27)
of which other	0	(59) ¹	0	0	(59)	0	(27) ¹	0	0	(27)
Other investments	0	81	0	0	81	0	87	0	0	87
International	1,250	695	0	371	2,316	2,337	974	0	491	3,802
Total plan assets at fair value	1,652	13,463	1,568	2,964	19,647	3,141	14,920	1,514	3,523	23,098

The Swiss pension fund uses exchange-traded futures and swaps to manage the economic exposure of the portfolio. These futures and swaps decreased the economic exposure to cash and cash equivalents by CHF 223 million and CHF 59 million in 2022 and 2021, respectively, increased the economic exposure to debt securities – corporate bonds by CHF 121 million and CHF 245 million in 2022 and 2021, respectively, increased/(decreased) the economic exposure to equity securities by CHF 21 million and CHF (186) million in 2022 and 2021, respectively, and increased the economic exposure to alternative investments – other by CHF 81 million in 2022.

1 Primarily related to derivative instruments.

Plan assets measured at fair value on a recurring basis for level 3

	Balance at beginning of period	Transfers in	Transfers out	Actual return on plan assets		Purchases, sales, settlements	Foreign currency translation impact	Balance at end of period
				On assets still held at reporting date	On assets sold during the period			
2022 (CHF million)								
Real estate	1,514	0	0	49	0	5	0	1,568
of which direct	1,514	0	0	49	0	5	0	1,568
Total plan assets at fair value	1,514	0	0	49	0	5	0	1,568
of which Switzerland	1,514	0	0	49	0	5	0	1,568
2021 (CHF million)								
Real estate	1,444	0	0	65	0	5	0	1,514
of which direct	1,444	0	0	65	0	5	0	1,514
Total plan assets at fair value	1,444	0	0	65	0	5	0	1,514
of which Switzerland	1,444	0	0	65	0	5	0	1,514

Qualitative disclosures of valuation techniques used to measure fair value

Cash and cash equivalents

Cash and cash equivalents includes money market instruments such as bankers' acceptances, certificates of deposit, CP, book claims, treasury bills, other rights and commingled funds. Valuations of money market instruments and commingled funds are generally based on observable inputs.

Debt securities

Debt securities include government and corporate bonds which are generally quoted in active markets or as units in mutual funds. Debt securities for which market prices are not available, are valued based on yields reflecting the perceived risk of the issuer and the maturity of the security, recent disposals in the market or other modeling techniques, which may involve judgment. Units in mutual funds which are not directly quoted on a public stock exchange and/or for which a fair value is not readily determinable are measured at fair value using NAV.

Equity securities

Equity securities held include common equity shares, convertible bonds and shares in investment companies and units in mutual funds. The common equity shares are generally traded on public stock exchanges for which quoted prices are regularly available. Convertible bonds are generally valued using observable pricing sources. Shares in investment companies and units in mutual funds, which are not directly quoted on a public stock exchange and/or for which a fair value is not readily determinable, are measured at fair value using NAV.

Real estate

Real estate includes direct real estate as well as investments in real estate investment companies, trusts or mutual funds. Direct real estate is initially measured at its transaction price, which is the best estimate of fair value. Thereafter, direct real estate is individually measured at fair value based on a number of factors that include any recent rounds of financing involving third-party investors, comparable company transactions, multiple analyses of cash flows or book values, or discounted cash flow analyses. The

availability of information used in these modeling techniques is often limited and involves significant judgment in evaluating these different factors over time. Real estate investment companies, trusts and mutual funds which are not directly quoted on a public stock exchange and/or for which a fair value is not readily determinable are measured at fair value using NAV.

Alternative investments

Private equity includes direct investments, investments in partnerships that make private equity and related investments in various portfolio companies and funds and fund of funds partnerships. Private equity consists of both publicly traded securities and private securities. Publicly traded investments that are restricted or that are not quoted in active markets are valued based on publicly available quotes with appropriate adjustments for liquidity or trading restrictions. Private equity is valued taking into account a number of factors, such as the most recent round of financing involving unrelated new investors, earnings multiple analyses using comparable companies or discounted cash flow analyses. Private equity for which a fair value is not readily determinable is measured at fair value using NAV provided by the general partner.

Hedge funds that are not directly quoted on a public stock exchange and/or for which a fair value is not readily determinable are measured at fair value using NAV provided by the fund administrator.

Derivatives

Derivatives include both OTC and exchange-traded derivatives. The fair value of OTC derivatives is determined on the basis of inputs that include those characteristics of the derivative that have a bearing on the economics of the instrument. The determination of the fair value of many derivatives involves only a limited degree of subjectivity since the required inputs are generally observable in the marketplace. Other more complex derivatives may use unobservable inputs. Such inputs include long-dated volatility assumptions on OTC option transactions and recovery rate assumptions for credit derivative transactions. The fair value of exchange-traded derivatives is typically derived from the observable exchange prices and/or observable inputs.

Plan asset allocation

The following table shows the plan asset allocation as of the measurement date calculated based on the fair value at that date.

Plan asset allocation

December 31	Switzerland		International	
	2022	2021	2022	2021
Weighted-average (%)				
Cash and cash equivalents	1.4	1.6	5.1	2.9
Debt securities	43.4	35.2	89.4	92.9
Equity securities	16.2	27.3	4.5	2.6
Real estate	21.3	18.4	0.0	0.0
Alternative investments	17.7	17.5	(2.5)	(0.7)
Insurance	0.0	0.0	3.5	2.3
Total	100.0	100.0	100.0	100.0

The following table shows the target plan asset allocation for 2023 in accordance with the Group's investment strategy.

2023 target plan asset allocation

	Switzerland	International
Weighted-average (%)		
Cash and cash equivalents	3.0	1.1
Debt securities	40.5	91.7
Equity securities	20.5	3.7
Real estate	24.0	0.0
Alternative investments	12.0	0.0
Insurance	0.0	3.5
Total	100.0	100.0

Estimated future benefit payments

The following table shows the estimated future benefit payments for defined benefit pension and other post-retirement defined benefit plans.

Estimated future benefit payments

	Defined benefit pension plans	Other post-retirement defined benefit plan
Payments (CHF million)		
2023	1,343	10
2024	1,067	10
2025	1,055	10
2026	1,035	9
2027	1,014	9
For five years thereafter	4,679	36

33 Derivatives and hedging activities

Derivatives are generally either privately negotiated OTC contracts or standard contracts transacted through regulated exchanges. The Group's most frequently used freestanding derivative products, entered into for trading and risk management purposes, include interest rate, credit default and cross-currency swaps, interest rate and foreign exchange options, interest rate and foreign exchange forward contracts and foreign exchange and interest rate futures.

The Group also enters into contracts that are not considered derivatives in their entirety but include embedded derivative features. Such transactions primarily include issued and purchased structured debt instruments where the return may be calculated by reference to an equity security, index or third-party credit risk, or that have non-standard interest or foreign exchange terms.

On the date a derivative contract is entered into, the Group designates it as belonging to one of the following categories:

- trading activities;
- a risk management transaction that does not qualify as a hedge under accounting standards (referred to as an economic hedge);
- a hedge of the fair value of a recognized asset or liability;
- a hedge of the variability of cash flows to be received or paid relating to a recognized asset or liability or a forecasted transaction; or
- a hedge of a net investment in a foreign operation.

Trading activities

The Group is active in most of the principal trading markets and transacts in many trading and hedging products. As noted above, this includes the use of swaps, futures, options and structured products, such as custom transactions using combinations of derivatives, in connection with its sales and trading activities. Trading activities include market-making, positioning and arbitrage activities. The majority of the Group's derivatives were used for trading activities.

Economic hedges

Economic hedges arise when the Group enters into derivative contracts for its own risk management purposes, but the contracts entered into do not qualify for hedge accounting under US GAAP. These economic hedges include the following types:

- interest rate derivatives to manage net interest rate risk on certain core banking business assets and liabilities;
- foreign exchange derivatives to manage foreign exchange risk on certain core banking business revenue and expense items, as well as on core banking business assets and liabilities;

- credit derivatives to manage credit risk on certain loan portfolios;
- futures to manage risk on equity positions including convertible bonds; and
- equity derivatives to manage equity/index risks on certain structured products.

Derivatives used in economic hedges are included as trading assets or trading liabilities in the consolidated balance sheets.

Hedge accounting

Fair value hedges

The Group designates fair value hedges as part of an overall interest rate risk management strategy that incorporates the use of derivative instruments to minimize fluctuations in earnings that are caused by interest rate volatility. The Group uses derivatives to hedge for changes in fair value as a result of the interest rate risk associated with loans, debt securities held as available-for-sale and long-term debt instruments.

Cash flow hedges

The Group hedges the variability in interest cash flows mainly on mortgages, loans and reverse repurchase agreements by using interest rate swaps to convert variable rate assets to fixed rates. Further, the Group uses foreign currency forwards to hedge the foreign currency risk associated with certain forecasted transactions. As of the end of 2022, the maximum length of time over which the Group hedged its exposure to the variability in future cash flows for forecasted transactions, excluding those forecasted transactions related to the payment of variable interest on existing financial instruments, was 12 months.

Net investment hedges

The Group designates net investment hedges as part of its strategy to hedge selected net investments in foreign operations against adverse movements in foreign exchange rates, typically using forward foreign exchange contracts.

Hedge effectiveness assessment

The Group assesses the effectiveness of hedging relationships both prospectively and retrospectively. The prospective assessment is made both at the inception of a hedging relationship and on an ongoing basis, and requires the Group to justify its expectation that the relationship will be highly effective over future periods. The retrospective assessment is also performed on an ongoing basis and requires the Group to determine whether or not the hedging relationship has actually been effective.

Fair value of derivative instruments

The tables below present gross derivative replacement values by type of contract and whether the derivative is used for trading purposes or in a qualifying hedging relationship. Notional amounts have also been provided as an indication of the volume of derivative activity within the Group.

Information on bifurcated embedded derivatives has not been included in these tables. Under US GAAP, the Group elected to account for substantially all financial instruments with an embedded derivative that is not considered clearly and closely related to the host contract at fair value.

- Refer to “Note 36 – Financial instruments” for further information.

Fair value of derivative instruments

	Trading			Hedging ¹		
	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)
end of 2022						
Derivative instruments (CHF billion)						
Forwards and forward rate agreements	2,088.2	1.7	1.7	0.0	0.0	0.0
Swaps	9,128.3	23.4	21.7	135.7	0.1	1.8
Options bought and sold (OTC)	644.4	8.2	8.6	0.0	0.0	0.0
Futures	144.9	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	35.9	0.0	0.0	0.0	0.0	0.0
Interest rate products	12,041.7	33.3	32.0	135.7	0.1	1.8
Forwards	701.4	8.7	10.0	17.7	0.1	0.2
Swaps	334.9	14.3	13.5	0.0	0.0	0.0
Options bought and sold (OTC)	167.5	2.5	2.7	0.0	0.0	0.0
Futures	4.1	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	2.8	0.0	0.0	0.0	0.0	0.0
Foreign exchange products	1,210.7	25.5	26.2	17.7	0.1	0.2
Forwards	0.3	0.0	0.0	0.0	0.0	0.0
Swaps	22.8	0.9	0.7	0.0	0.0	0.0
Options bought and sold (OTC)	181.4	5.2	7.5	0.0	0.0	0.0
Futures	42.0	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	469.3	18.9	18.5	0.0	0.0	0.0
Equity/index-related products	715.8	25.0	26.7	0.0	0.0	0.0
Credit derivatives ²	352.0	3.2	3.4	0.0	0.0	0.0
Forwards	6.9	0.1	0.1	0.0	0.0	0.0
Swaps	9.5	0.7	0.4	0.0	0.0	0.0
Options bought and sold (OTC)	8.8	0.1	0.1	0.0	0.0	0.0
Futures	12.6	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	2.7	0.1	0.0	0.0	0.0	0.0
Other products ³	40.5	1.0	0.6	0.0	0.0	0.0
Total derivative instruments	14,360.7	88.0	88.9	153.4	0.2	2.0

The notional amount, PRV and NRV (trading and hedging) was CHF 14,514.1 billion, CHF 88.2 billion and CHF 90.9 billion, respectively, as of December 31, 2022.

- Relates to derivative contracts that qualify for hedge accounting under US GAAP.
- Primarily credit default swaps.
- Primarily precious metals, commodity and energy products.

Fair value of derivative instruments (continued)

end of 2021	Trading			Hedging ¹		
	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)
Derivative instruments (CHF billion)						
Forwards and forward rate agreements	1,736.0	0.9	0.9	0.0	0.0	0.0
Swaps	8,810.0	36.8	33.0	131.4	0.4	0.2
Options bought and sold (OTC)	779.0	11.5	10.9	0.0	0.0	0.0
Futures	144.5	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	71.6	0.1	0.0	0.0	0.0	0.0
Interest rate products	11,541.1	49.3	44.8	131.4	0.4	0.2
Forwards	1,052.9	7.6	8.2	21.1	0.1	0.1
Swaps	345.3	11.3	12.4	0.0	0.0	0.0
Options bought and sold (OTC)	235.4 ²	2.9 ²	3.1 ²	0.0	0.0	0.0
Futures	10.3	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	1.6	0.0	0.0	0.0	0.0	0.0
Foreign exchange products	1,645.5	21.8	23.7	21.1	0.1	0.1
Forwards	0.9	0.1	0.0	0.0	0.0	0.0
Swaps	94.7	1.4	2.6	0.0	0.0	0.0
Options bought and sold (OTC)	243.9	11.1	12.5	0.0	0.0	0.0
Futures	46.3	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	535.8	22.9	21.5	0.0	0.0	0.0
Equity/index-related products	921.6	35.5	36.6	0.0	0.0	0.0
Credit derivatives ³	506.8	5.0	6.3	0.0	0.0	0.0
Forwards	9.9	0.2	0.1	0.0	0.0	0.0
Swaps	12.0	1.1	0.4	0.0	0.0	0.0
Options bought and sold (OTC)	11.1	0.2	0.1	0.0	0.0	0.0
Futures	11.1	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	9.2	0.1	0.1	0.0	0.0	0.0
Other products ⁴	53.3	1.6	0.7	0.0	0.0	0.0
Total derivative instruments	14,668.3	113.2	112.1	152.5	0.5	0.3

The notional amount, PRV and NRV (trading and hedging) was CHF 14,820.8 billion, CHF 113.7 billion and CHF 112.4 billion, respectively, as of December 31, 2021.

- 1 Relates to derivative contracts that qualify for hedge accounting under US GAAP.
- 2 Prior period has been revised.
- 3 Primarily credit default swaps.
- 4 Primarily precious metals, commodity and energy products.

Gains or (losses) on fair value hedges

in	2022	2021	2020
Interest rate products (CHF million)			
Hedged items ¹	5,346	1,673	(1,679)
Derivatives designated as hedging instruments ¹	(5,020)	(1,597)	1,564

The accrued interest on fair value hedges is recorded in net interest income and is excluded from this table.

- 1 Included in net interest income.

Hedged items in fair value hedges

end of	2022			2021		
	Hedged items		Discontinued hedges ²	Hedged items		Discontinued hedges ²
	Carrying amount	Hedging adjustments ¹		Carrying amount	Hedging adjustments ¹	
Assets (CHF billion)						
Investment securities	0.8	(0.1)	0.0	0.8	0.0	0.0
Net loans	29.0	(1.3)	(0.7)	16.6	(0.2)	0.2
Liabilities (CHF billion)						
Long-term debt	77.2	(1.2)	(4.9)	69.4	(0.2)	0.8

1 Relates to the cumulative amount of fair value hedging adjustments included in the carrying amount.

2 Relates to the cumulative amount of fair value hedging adjustments remaining for any hedged items for which hedge accounting has been discontinued.

Cash flow hedges

in	2022	2021	2020
Interest rate products (CHF million)			
Gains/(losses) recognized in AOCI on derivatives	(474)	(314)	134
Gains/(losses) reclassified from AOCI into interest and dividend income	1,018	7	(70)
Foreign exchange products (CHF million)			
Gains/(losses) recognized in AOCI on derivatives	(56)	(9)	(33)
Trading revenues	0	0	(30)
Total other operating expenses	(60)	34	(2)
Gains/(losses) reclassified from AOCI into income	(60)	34	(32)
Gains/(losses) excluded from the assessment of effectiveness reported in trading revenues ¹	0	0	1

1 Relates to the forward points of a foreign currency forward.

The net loss associated with cash flow hedges expected to be reclassified from AOCI within the next 12 months was CHF 538 million.

Net investment hedges

in	2022	2021	2020
Foreign exchange products (CHF million)			
Gains/(losses) recognized in the cumulative translation adjustments section of AOCI	(12)	47	458
Gains/(losses) reclassified from the cumulative translation adjustments section of AOCI into other revenues	0	0	10

The Group includes all derivative instruments not included in hedge accounting relationships in its trading activities.

- Refer to “Note 7 – Trading revenues” for gains and losses on trading activities by product type.

Disclosures relating to contingent credit risk

Certain of the Group’s derivative instruments contain provisions that require the maintenance of contractually specified credit ratings from each of the major credit rating agencies. If the ratings fall below the level specified in the contract, the counterparties to the agreement could request payment of additional collateral on those derivative instruments that are in a net liability position. Certain of the derivative contracts also provide for termination of the contract, generally upon a downgrade of the contractually specified credit ratings. Such derivative contracts are reflected at close-out costs.

The following table provides the Group’s current net exposure from contingent credit risk relating to derivative contracts with bilateral counterparties and SPEs that include credit support agreements, the related collateral posted and the additional collateral that could be called by counterparties in the event of a one, two or three-notch downgrade in the contractually specified credit ratings. The table also includes derivative contracts with contingent credit risk features without credit support agreements that have accelerated termination event conditions. The current net exposure for derivative contracts with bilateral counterparties and contracts with accelerated termination event conditions is the aggregate fair value of derivative instruments that were in a net liability position. For SPEs, the current net exposure is the contractual amount that is used to determine the collateral payable in the event of a downgrade. The contractual amount could include both the NRV and a percentage of the notional value of the derivative.

Contingent credit risk

end of	2022				2021			
	Bilateral counterparties	Special purpose entities	Accelerated terminations	Total	Bilateral counterparties	Special purpose entities	Accelerated terminations	Total
Contingent credit risk (CHF billion)								
Current net exposure	1.2	0.1	0.1	1.4	2.3	0.0	0.3	2.6
Collateral posted	1.0	0.1	–	1.1	1.9	0.0	–	1.9
Impact of a one-notch downgrade event	0.4	0.0	0.1	0.5	0.1	0.0	0.0	0.1
Impact of a two-notch downgrade event	0.5	0.1	0.2	0.8	0.2	0.0	0.0	0.2
Impact of a three-notch downgrade event	0.5	0.1	0.2	0.8	0.7	0.0	0.1	0.8

The impact of a downgrade event reflects the amount of additional collateral required for bilateral counterparties and special purpose entities and the amount of additional termination expenses for accelerated terminations, respectively. Excludes contracts with specified conditions and clauses which, when triggered, would result in a receivable position for the Group.

Credit derivatives

Credit derivatives are contractual agreements in which the buyer generally pays a fee in exchange for a contingent payment by the seller if there is a credit event on the underlying referenced entity or asset. They are generally privately negotiated OTC contracts, with numerous settlement and payment terms, and most are structured so that they specify the occurrence of an identifiable credit event, which can include bankruptcy, insolvency, receivership, material adverse restructuring of debt or failure to meet obligations when due.

The Group enters into credit derivative contracts in the normal course of business, buying and selling protection to facilitate client transactions and as a market maker. This includes providing structured credit products for its clients to enable them to hedge their credit risk. The referenced instruments of these structured credit products are both investment grade and non-investment grade and could include corporate bonds, sovereign debt, asset-backed securities (ABS) and loans. These instruments can be formed as single items (single-named instruments) or combined on a portfolio basis (multi-named instruments). The Group purchases protection to economically hedge various forms of credit exposure, for example, the economic hedging of loan portfolios or other cash positions. Finally, the Group also takes proprietary positions which can take the form of either purchased or sold protection.

The credit derivatives most commonly transacted by the Group are CDS and credit swaptions. CDSs are contractual agreements in which the buyer of the swap pays an upfront and/or a periodic fee in return for a contingent payment by the seller of the swap following a credit event of the referenced entity or asset. Credit swaptions are options with a specified maturity to buy or sell protection under a CDS on a specific referenced credit event.

In addition, to reduce its credit risk, the Group enters into legally enforceable netting agreements with its derivative counterparties. Collateral on these derivative contracts is usually posted on a net

counterparty basis and cannot be allocated to a particular derivative contract.

- Refer to “Note 28 – Offsetting of financial assets and financial liabilities” for further information on netting.

Credit protection sold

Credit protection sold is the maximum potential payout, which is based on the notional value of derivatives and represents the amount of future payments that the Group would be required to make as a result of credit risk-related events. The Group believes that the maximum potential payout is not representative of the actual loss exposure based on historical experience. This amount has not been reduced by the Group’s rights to the underlying assets and the related cash flows. In accordance with most credit derivative contracts, should a credit event (or settlement trigger) occur, the Group is usually liable for the difference between the credit protection sold and the recourse it holds in the value of the underlying assets. The maximum potential amount of future payments has not been reduced for any cash collateral paid to a given counterparty as such payments would be calculated after netting all derivative exposures, including any credit derivatives with that counterparty in accordance with a related master netting agreement. Due to such netting processes, determining the amount of collateral that corresponds to credit derivative exposures only is not possible.

To reflect the quality of the payment risk on credit protection sold, the Group assigns an internally generated rating to those instruments referenced in the contracts. Internal ratings are assigned by experienced credit analysts based on expert judgment that incorporates analysis and evaluation of both quantitative and qualitative factors. The specific factors analyzed, and their relative importance, are dependent on the type of counterparty. The analysis emphasizes a forward-looking approach, concentrating on economic trends and financial fundamentals, and making use of peer analysis, industry comparisons and other quantitative tools. External ratings and market information are also used in the analysis process where available.

Credit protection purchased

Credit protection purchased represents those instruments where the underlying reference instrument is identical to the reference instrument of the credit protection sold. The maximum potential payout amount of credit protection purchased for each individual identical underlying reference instrument may be greater or lower than the notional amount of protection sold.

The Group also considers estimated recoveries that it would receive if the specified credit event occurred, including both the anticipated value of the underlying referenced asset that would, in most instances, be transferred to the Group and the impact of any purchased protection with an identical reference instrument and product type.

Other protection purchased

In the normal course of business, the Group purchases protection to offset the risk of credit protection sold that may have similar, but not identical, reference instruments, and may use similar, but not identical, products, which reduces the total credit derivative exposure. Other protection purchased is based on the notional value of the instruments.

The Group purchases its protection from banks and broker dealers, other financial institutions and other counterparties.

Fair value of credit protection sold

The fair values of the credit protection sold give an indication of the amount of payment risk, as the negative fair values increase when the potential payment under the derivative contracts becomes more probable.

Credit protection sold/purchased

The following tables do not include all credit derivatives and differ from the credit derivatives in the “Fair value of derivative instruments” table. This is due to the exclusion of certain credit derivative instruments under US GAAP, which defines a credit derivative as a derivative instrument (a) in which one or more of its underlyings are related to the credit risk of a specified entity (or a group of entities) or an index based on the credit risk of a group of entities and (b) that exposes the seller to potential loss from credit risk-related events specified in the contract.

Total return swaps (TRS) of CHF 5.9 billion and CHF 12.0 billion as of December 31, 2022 and 2021, respectively, were also excluded because a TRS does not expose the seller to potential loss from credit risk-related events specified in the contract. A TRS only provides protection against a loss in asset value and not against additional amounts as a result of specific credit events.

Credit protection sold/purchased

end of	2022					2021				
	Credit protection sold	Credit protection purchased ¹	Net credit protection (sold)/purchased	Other protection purchased	Fair value of credit protection sold	Credit protection sold	Credit protection purchased ¹	Net credit protection (sold)/purchased	Other protection purchased	Fair value of credit protection sold
Single-name instruments (CHF billion)										
Investment grade ²	(52.8)	48.6	(4.2)	10.6	0.2	(60.2)	55.6	(4.6)	10.1	0.6
Non-investment grade	(22.3)	20.7	(1.6)	4.9	(0.2)	(31.5)	28.9	(2.6)	7.9	0.4
Total single-name instruments	(75.1)	69.3	(5.8)	15.5	0.0	(91.7)	84.5	(7.2)	18.0	1.0
of which sovereign	(12.8)	11.3	(1.5)	4.4	(0.1)	(13.5)	12.2	(1.3)	4.0	(0.1)
of which non-sovereign	(62.3)	58.0	(4.3)	11.1	0.1	(78.2)	72.3	(5.9)	14.0	1.1
Multi-name instruments (CHF billion)										
Investment grade ²	(54.3)	50.8	(3.5)	8.9	0.1	(102.9)	96.0	(6.9)	20.2	0.7
Non-investment grade	(30.9)	28.4	(2.5)	9.5 ³	(0.6)	(35.7)	33.2	(2.5)	12.6 ³	(0.5)
Total multi-name instruments	(85.2)	79.2	(6.0)	18.4	(0.5)	(138.6)	129.2	(9.4)	32.8	0.2
of which non-sovereign	(85.2)	79.2	(6.0)	18.4	(0.5)	(138.6)	129.2	(9.4)	32.8	0.2
Total instruments (CHF billion)										
Investment grade ²	(107.1)	99.4	(7.7)	19.5	0.3	(163.1)	151.6	(11.5)	30.3	1.3
Non-investment grade	(53.2)	49.1	(4.1)	14.4	(0.8)	(67.2)	62.1	(5.1)	20.5	(0.1)
Total instruments	(160.3)	148.5	(11.8)	33.9	(0.5)	(230.3)	213.7	(16.6)	50.8	1.2
of which sovereign	(12.8)	11.3	(1.5)	4.4	(0.1)	(13.5)	12.2	(1.3)	4.0	(0.1)
of which non-sovereign	(147.5)	137.2	(10.3)	29.5	(0.4)	(216.8)	201.5	(15.3)	46.8	1.3

1 Represents credit protection purchased with identical underlyings and recoveries.

2 Based on internal ratings of BBB and above.

3 Includes synthetic securitized loan portfolios.

The following table reconciles the notional amount of credit derivatives included in the table “Fair value of derivative instruments” to the table “Credit protection sold/purchased”.

Credit derivatives		
end of	2022	2021
Credit derivatives (CHF billion)		
Credit protection sold	160.3	230.3
Credit protection purchased	148.5	213.7
Other protection purchased	33.9	50.8
Other instruments ¹	9.3	12.0
Total credit derivatives	352.0	506.8

¹ Consists of total return swaps and other derivative instruments.

The segregation of the future payments by maturity range and underlying risk gives an indication of the current status of the potential for performance under the derivative contracts.

Maturity of credit protection sold

end of	Maturity less than 1 year	Maturity between 1 to 5 years	Maturity greater than 5 years	Total
2022 (CHF billion)				
Single-name instruments	10.0	61.8	3.3	75.1
Multi-name instruments	6.5	71.5	7.2	85.2
Total instruments	16.5	133.3	10.5	160.3
2021 (CHF billion)				
Single-name instruments	14.4	73.6	3.7	91.7
Multi-name instruments	39.9	88.3	10.4	138.6
Total instruments	54.3	161.9	14.1	230.3

34 Guarantees and commitments

Guarantees

In the ordinary course of business, guarantees are provided that contingently obligate the Group to make payments to third parties if the counterparty fails to fulfill its obligation under a borrowing or other contractual arrangement. The total gross amount disclosed within the Guarantees table reflects the maximum potential payment under the guarantees. The carrying value represents the

higher of the initial fair value (generally the related fee received or receivable) less cumulative amortization and the Group’s current best estimate of payments that will be required under existing guarantee arrangements.

Guarantees provided by the Group are classified as follows: credit guarantees and similar instruments, performance guarantees and similar instruments, derivatives and other guarantees.

Guarantees

end of	Maturity less than 1 year	Maturity between 1 to 3 years	Maturity between 3 to 5 years	Maturity greater than 5 years	Total gross amount	Total net amount ¹	Carrying value	Collateral received
2022 (CHF million)								
Credit guarantees and similar instruments	2,257	451	127	471	3,306	3,193	22	2,068
Performance guarantees and similar instruments	4,280	1,750	729	513	7,272	6,527	61	3,778
Derivatives ²	2,646	1,702	520	374	5,242	5,242	101	—
Other guarantees	4,455	859	182	1,144	6,640	6,640	56	3,292
Total guarantees	13,638	4,762	1,558	2,502	22,460	21,602	240	9,138
2021 (CHF million)								
Credit guarantees and similar instruments	2,124	1,049	197	561	3,931	3,874	25	2,014
Performance guarantees and similar instruments	3,982	2,253	555	528	7,318	6,299	40	3,605
Derivatives ²	5,374	2,567	561	419	8,921	8,921	289	—
Other guarantees	4,012	1,040	307	1,151	6,510	6,469	71	3,789
Total guarantees	15,492	6,909	1,620	2,659	26,680	25,563	425	9,408

¹ Total net amount is computed as the gross amount less any participations.

² Excludes derivative contracts with certain active commercial and investment banks and certain other counterparties, as such contracts can be cash settled and the Group had no basis to conclude it was probable that the counterparties held, at inception, the underlying instruments.

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Credit guarantees and similar instruments

Credit guarantees and similar instruments are contracts that require the Group to make payments should a third party fail to do so under a specified existing credit obligation. The position includes standby letters of credit, commercial and residential mortgage guarantees, credit guarantees to clearing and settlement networks and exchanges and other guarantees associated with VIEs.

Standby letters of credit are made in connection with the corporate lending business and other corporate activities, where the Group provides guarantees to counterparties in the form of standby letters of credit, which represent obligations to make payments to third parties if the counterparties fail to fulfill their obligations under a borrowing arrangement or other contractual obligation.

Commercial and residential mortgage guarantees are made in connection with the Group's commercial mortgage activities in the US, where the Group sells certain commercial and residential mortgages to Fannie Mae and agrees to bear a percentage of the losses triggered by the borrowers failing to perform on the mortgage. The Group also issues guarantees that require it to reimburse Fannie Mae for losses on certain whole loans underlying mortgage-backed securities issued by Fannie Mae, which are triggered by borrowers failing to perform on the underlying mortgages.

The Group also provides guarantees to VIEs and other counter-parties under which it may be required to buy assets from such entities upon the occurrence of certain triggering events such as rating downgrades and/or substantial decreases in the fair value of those assets.

Performance guarantees and similar instruments

Performance guarantees and similar instruments are arrangements that require contingent payments to be made when certain performance-related targets or covenants are not met. Such covenants may include a customer's obligation to deliver certain products and services or to perform under a construction contract. Performance guarantees are frequently executed as part of project finance transactions. The position includes private equity fund guarantees and guarantees related to residential mortgage securitization activities.

For private equity fund guarantees, the Group has provided investors in private equity funds sponsored by a Group entity guarantees on potential obligations of certain general partners to return amounts previously paid as carried interest to those general partners if the performance of the remaining investments declines. To manage its exposure, the Group generally withholds a portion of carried interest distributions to cover any repayment obligations. In addition, pursuant to certain contractual arrangements, the Group is obligated to make cash payments to certain investors in certain private equity funds if specified performance thresholds are not met.

Further, as part of the Group's residential mortgage securitization activities in the US, the Group may guarantee the collection by the servicer and remittance to the securitization trust of prepayment penalties. The Group will have to perform under these guarantees in the event the servicer fails to remit the prepayment penalties.

Derivatives

Derivatives which may also have the characteristics of a guarantee are issued in the ordinary course of business, generally in the form of written put options. Such derivative contracts do not meet the characteristics of a guarantee if they are cash settled and the Group has no basis to conclude it is probable that the counter-parties held, at inception, the underlying instruments related to the derivative contracts. The Group has concluded that these conditions were met for certain active commercial and investment banks and certain other counterparties, and accordingly, the Group has reported such contracts as derivatives only.

The Group manages its exposure to these derivatives by engaging in various hedging strategies to reduce its exposure. For some contracts, such as written interest rate caps or foreign exchange options, the maximum payout is not determinable as interest rates or exchange rates could theoretically rise without limit. For these contracts, notional amounts were disclosed in the table above in order to provide an indication of the underlying exposure. In addition, the Group carries all derivatives at fair value in the consolidated balance sheets and has considered the performance triggers and probabilities of payment when determining those fair values. It is more likely than not that written put options that are in-the-money to the counterparty will be exercised, for which the Group's exposure was limited to the carrying value reflected in the table.

Other guarantees

Other guarantees include bankers' acceptances, residual value guarantees, deposit insurance, contingent considerations in business combinations, the minimum value of an investment in mutual funds or private equity funds and all other guarantees that were not allocated to one of the categories above.

Deposit-taking banks and securities dealers in Switzerland and certain other European countries are required to ensure the payout of protected deposits in case of specified restrictions or compulsory liquidation of a deposit-taking bank. In Switzerland, deposit-taking banks and securities dealers jointly guaranteed an amount of up to CHF 6 billion under the regulation applicable until December 31, 2022. Upon occurrence of a payout event triggered by a specified restriction of business imposed by FINMA or by the compulsory liquidation of another deposit-taking bank, the Group's contribution will be calculated based on its share of privileged deposits in proportion to total privileged deposits. Based on FINMA's estimate for the Group's banking subsidiaries in Switzerland, the Group's share in the deposit insurance guarantee program for the period July 1, 2022 to December 31, 2022 was CHF 0.5 billion. These deposit insurance guarantees were reflected in other guarantees.

On January 1, 2023, a partial revision of the Swiss Federal Law on Banks and Savings Banks (Bank Law) became effective, which included changes to the Swiss deposit insurance guarantee program. Under the revised program, among other changes, the jointly guaranteed amount is now determined as the higher of CHF 6 billion or 1.6% of all protected deposits. The Group's respective share will be approximately CHF 0.6 billion for the period January 1 to June 30, 2023, as per notifications from the administrator of the Swiss deposit insurance program to the Group's Swiss bank subsidiaries. With a transition period until November 30, 2023, banks will have to provide half of the maximum payment obligation as collateral to the administrator of the Swiss deposit insurance program, while the other half will remain subject to the bank's liquidity requirements and will be reflected in other guarantees. Collateral will have to be provided to the Swiss National Bank (SNB) or the SIX Swiss Exchange in the form of high quality liquid securities or Swiss franc cash deposits or to the administrator of the Swiss deposit insurance program in the form of a loan.

Representations and warranties on residential mortgage loans sold

In connection with the Investment Bank division's sale of US residential mortgage loans, the Group has provided certain representations and warranties relating to the loans sold. The Group has provided these representations and warranties relating to sales of loans to institutional investors, primarily banks, and non-agency, or private label, securitizations. The loans sold are primarily loans that the Group has purchased from other parties. The scope of representations and warranties, if any, depends on the transaction, but can include: ownership of the mortgage loans and legal capacity to sell the loans; loan-to-value ratios and other characteristics of the property, the borrower and the loan; validity of the liens securing the loans and absence of delinquent taxes or related liens; conformity to underwriting standards and completeness of documentation; and origination in compliance with law. If it is determined that representations and warranties were breached, the Group may be required to repurchase the related loans or indemnify the investors to make them whole for losses. Whether the Group will incur a loss in connection with repurchases and make whole payments depends on: the extent to which claims are made; the validity of such claims made within the statute of limitations (including the likelihood and ability to enforce claims); whether the Group can successfully claim against parties that sold loans to the Group and made representations and warranties to the Group; the residential real estate market, including the number of defaults; and whether the obligations of the securitization vehicles were guaranteed or insured by third parties.

Repurchase claims on residential mortgage loans sold that are subject to arbitration or litigation proceedings, or become so during the reporting period, are not included in this Guarantees and commitments disclosure but are addressed in litigation and related loss contingencies and provisions. The Group is involved in litigation relating to representations and warranties on residential mortgages sold.

- Refer to "Note 40 – Litigation" for further information.

Disposal-related contingencies and other indemnifications

The Group has certain guarantees for which its maximum contingent liability cannot be quantified. These guarantees are not reflected in the "Guarantees" table and are discussed below.

Disposal-related contingencies

In connection with the sale of assets or businesses, the Group sometimes provides the acquirer with certain indemnification provisions. These indemnification provisions vary by counter-party in scope and duration and depend upon the type of assets or businesses sold. They are designed to transfer the potential risk of certain unquantifiable and unknowable loss contingencies, such as litigation, tax and intellectual property matters, from the acquirer to the seller. The Group closely monitors all such contractual agreements in order to ensure that indemnification provisions are adequately provided for in the Group's consolidated financial statements.

Other indemnifications

The Group provides indemnifications to certain counterparties in connection with its normal operating activities for which it is not possible to estimate the maximum amount that it could be obligated to pay. As a normal part of issuing its own securities, the Group typically agrees to reimburse holders for additional tax withholding charges or assessments resulting from changes in applicable tax laws or the interpretation of those laws. Securities that include these agreements to pay additional amounts generally also include a related redemption or call provision if the obligation to pay the additional amounts results from a change in law or its interpretation and the obligation cannot be avoided by the issuer taking reasonable steps to avoid the payment of additional amounts. Since such potential obligations are dependent on future changes in tax laws, the related liabilities the Group may incur as a result of such changes cannot be reasonably estimated. In light of the related call provisions typically included, the Group does not expect any potential liabilities in respect of tax gross-ups to be material.

The Group is a member of numerous securities exchanges and clearing houses and may, as a result of its membership arrangements, be required to perform if another member defaults and available amounts as defined in the relevant exchange's or clearing house's default waterfalls are not sufficient to cover losses of another member's default. The exchange's or clearing house's default management procedures may provide for cash calls to non-defaulting members which may be limited to the amount (or a multiple of the amount) of the Group's contribution to the guarantee fund. However, if these cash calls are not sufficient to cover losses, the default waterfall and default management procedures may foresee further loss allocation. Furthermore, some clearing house arrangements require members to assume a proportionate share of non-default losses, if such losses exceed the specified resources allocated for such purpose by the clearing house. Non-default losses result from the clearing house's investment of guarantee fund contributions and initial margin or are other losses unrelated to the default of a clearing member. The Group has determined that it is not possible to reasonably estimate the maximum potential amount of future payments due under the membership arrangements. In addition, the Group believes that any potential requirement to make payments under these membership arrangements is remote.

Other commitments

Irrevocable commitments under documentary credits

Irrevocable commitments under documentary credits include exposures from trade finance related to commercial letters of credit under which the Group guarantees payments to exporters against presentation of shipping and other documents.

Irrevocable loan commitments

Irrevocable loan commitments are irrevocable credit facilities extended to clients and include fully or partially undrawn commitments that are legally binding and cannot be unconditionally cancelled by the Group. Commitments to originate mortgage loans that will be held for sale are considered derivatives for accounting purposes and are not included in this disclosure. Such commitments are reflected as derivatives in the consolidated balance sheets.

Forward reverse repurchase agreements

Forward reverse repurchase agreements represent transactions in which the initial cash exchange of the reverse repurchase transactions takes place on specified future dates. The Group enters into forward reverse repurchase agreements with counterparties that may have existing funded reverse repurchase agreements. Depending on the details of the counterparty contract with Credit Suisse, both a counterparty's existing funded reverse repurchase agreement and any forward reverse repurchase agreements under contract with the same counterparty are considered.

Other commitments

Other commitments include contracts that require the Group to make payments should a third party fail to do so under a specified future credit obligation, such as commitments arising from deferred payment letters of credit, e.g., with re-insurance clients. Other commitments also include private equity commitments, firm commitments in underwriting securities as well as commitments from acceptances in circulation and liabilities for call and put options on shares and other equity instruments.

Other commitments

end of	Maturity less than 1 year	Maturity between 1 to 3 years	Maturity between 3 to 5 years	Maturity greater than 5 years	Total gross amount	Total net amount ¹
2022 (CHF million)						
Irrevocable commitments under documentary credits	3,378	41	0	1	3,420	3,233
Irrevocable loan commitments ²	19,272	33,512	44,563	14,782	112,129	108,118
Forward reverse repurchase agreements	1,021	0	0	0	1,021	1,021
Other commitments	212	16	2	268	498	498
Total other commitments	<u>23,883</u>	<u>33,569</u>	<u>44,565</u>	<u>15,051</u>	<u>117,068</u>	<u>112,870</u>
2021 (CHF million)						
Irrevocable commitments under documentary credits	4,796	116	0	0	4,912	4,602
Irrevocable loan commitments ²	22,959	44,143	43,848	11,609	122,559	118,281
Forward reverse repurchase agreements	466	0	0	0	466	466
Other commitments	121	16	11	248	396	396
Total other commitments	<u>28,342</u>	<u>44,275</u>	<u>43,859</u>	<u>11,857</u>	<u>128,333</u>	<u>123,745</u>

¹ Total net amount is computed as the gross amount less any participations.

² Irrevocable loan commitments did not include a total gross amount of CHF 129,165 million and CHF 143,992 million of unused credit limits as of the end of 2022 and 2021 respectively, which were revocable at the Group's sole discretion upon notice to the client.

35 Transfers of financial assets and variable interest entities

In the normal course of business, the Group enters into transactions with, and makes use of, SPEs. An SPE is an entity in the form of a trust or other legal structure designed to fulfill a specific limited need of the company that organized it and is generally structured to isolate the SPE's assets from creditors of other entities, including the Group. The principal uses of SPEs are to assist the Group and its clients in securitizing financial assets and creating investment products. The Group also uses SPEs for other client-driven activity, such as to facilitate financings, and for Group tax or regulatory purposes.

Transfers of financial assets

Securitizations

The majority of the Group's securitization activities involve mortgages and mortgage-related securities and are predominantly transacted using SPEs. In a typical securitization, the SPE purchases assets financed by proceeds received from the SPE's issuance of debt and equity instruments, certificates, CP and other notes of indebtedness. These assets and liabilities are recorded on the balance sheet of the SPE and not reflected on the Group's consolidated balance sheet, unless either the Group sold the assets to the entity and the accounting requirements for sale were not met or the Group consolidates the SPE.

The Group purchases commercial and residential mortgages for the purpose of securitization and sells these mortgage loans to SPEs. These SPEs issue commercial mortgage-backed securities (CMBS), residential mortgage-backed securities (RMBS) and ABS that are collateralized by the assets transferred to the SPE and that pay a return based on the returns on those assets. Investors in these mortgage-backed securities or ABS typically have recourse to the assets in the SPEs. Third-party guarantees may further enhance the creditworthiness of the assets. The investors and the SPEs have no recourse to the Group's assets. The Group is typically an underwriter of, and makes a market in, these securities.

The Group also transacts in re-securitizations of previously issued RMBS securities. Typically, certificates issued out of an existing securitization vehicle are sold into a newly created and separate securitization vehicle. Often, these re-securitizations are initiated

in order to re-securitize an existing security to give the investor an investment with different risk ratings or characteristics.

The Group also uses SPEs for other asset-backed financings relating to client-driven activity and for Group tax or regulatory purposes. Types of structures included in this category include managed collateralized loan obligations (CLOs), CLOs, leveraged finance, repack and other types of transactions, including life insurance structures, emerging market structures set up for financing, loan participation or loan origination purposes, and other alternative structures created for the purpose of investing in venture capital-like investments. CLOs are collateralized by loans transferred to the CLO vehicle and pay a return based on the returns on the loans. Leveraged finance structures are used to assist in the syndication of certain loans held by the Group, while repack structures are designed to give a client collateralized exposure to specific cash flows or credit risk backed by collateral purchased from the Group. In these asset-backed financing structures, investors typically only have recourse to the collateral of the SPE and do not have recourse to the Group's assets.

When the Group transfers assets into an SPE, it must assess whether that transfer is accounted for as a sale of the assets. Transfers of assets may not meet sale requirements if the assets have not been legally isolated from the Group and/or if the Group's continuing involvement is deemed to give it effective control over the assets. If the transfer is not deemed a sale, it is instead accounted for as a secured borrowing, with the transferred assets as collateral.

Gains and losses on securitization transactions depend, in part, on the carrying values of mortgages and loans involved in the transfer and are allocated between the assets sold and any beneficial interests retained according to the relative fair values at the date of sale. Since the Group generally accounts for assets pending transfer, i.e., prior to securitization, at fair value, the Group does not typically recognize significant gains or losses upon the transfer of assets.

The Group does not retain material servicing responsibilities from securitization activities.

The following table provides the gains or losses and proceeds from the transfer of assets relating to 2022, 2021 and 2020

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securitizations of financial assets that qualify for sale accounting and subsequent derecognition, along with the cash flows between the Group and the SPEs used in any securitizations in which the Group still has continuing involvement, regardless of when the securitization occurred.

Securitizations

in	2022	2021	2020
Gains/(losses) and cash flows (CHF million)			
CMBS			
Net gain/(loss) ¹	6	(7)	85
Proceeds from transfer of assets ²	3,401	3,525	9,209
Cash received on interests that continue to be held	49	42	52
RMBS			
Net gain/(loss) ¹	(2)	70	32
Proceeds from transfer of assets ³	7,534	37,048	23,358
Purchases of previously transferred financial assets or its underlying collateral	0	(1,604)	0
Servicing fees	24	2	2
Cash received on interests that continue to be held	675	1,088	864
Other asset-backed financings			
Net gain ¹	16	65	105
Proceeds from transfer of assets ⁴	6,740	12,129	9,564
Purchases of previously transferred financial assets or its underlying collateral	(1,479)	(1,323)	(1,606)
Fees ⁵	192	165	148
Cash received on interests that continue to be held	153	14	17

- Includes primarily underwriting revenues, deferred origination fees and gains or losses on the sale of newly issued securities to third parties, but excludes net interest income on assets prior to the securitization.
- Included the receipt of non-cash beneficial interests (including risk retention securities) of CHF 512 million, CHF 180 million and CHF 161 million in 2022, 2021 and 2020, respectively.
- Included the receipt of non-cash beneficial interests (including risk retention securities) of CHF 1,081 million, CHF 3,072 million and CHF 3,030 million in 2022, 2021 and 2020, respectively.
- Included the receipt of non-cash beneficial interests (including risk retention securities) of CHF 168 million, CHF 54 million and CHF 9 million in 2022, 2021 and 2020, respectively.
- Represents primarily management fees and performance fees earned for investment management services provided to managed CLOs.

Continuing involvement in transferred financial assets

The Group may have continuing involvement in the financial assets that are transferred to an SPE, which may take several forms, including, but not limited to, servicing, recourse and guarantee arrangements, agreements to purchase or redeem transferred assets, derivative instruments, pledges of collateral and beneficial interests in the transferred assets. Beneficial interests, which are valued at fair value, include rights to receive all or portions of specified cash inflows received by an SPE, including, but not limited to, senior and subordinated shares of interest, principal, or other cash inflows to be “passed through” or

The Group’s exposure resulting from continuing involvement in transferred financial assets is generally limited to beneficial interests typically held by the Group in the form of instruments issued by SPEs that are senior, subordinated or residual tranches. These instruments are held by the Group typically in connection with its underwriting and market-making activities, primarily reflecting risk retention requirements applicable to certain securitization activities, and are included in trading assets in the consolidated balance sheets. Any changes in the fair value of these beneficial interests are recognized in the consolidated statements of operations.

Investors usually have recourse to the assets in the SPE and often benefit from other credit enhancements, such as collateral accounts, or from liquidity facilities, such as lines of credit or liquidity put option of asset purchase agreements. The SPE may also enter into a derivative contract in order to convert the yield or currency of the underlying assets to match the needs of the SPE investors, or to limit or change the credit risk of the SPE. The Group may be the provider of certain credit enhancements as well as the counterparty to any related derivative contract.

The following table provides the outstanding principal balance of assets to which the Group continued to be exposed after the transfer of the financial assets to SPEs and the total assets of the SPEs as of December 31, 2022 and 2021, regardless of when the transfer of assets occurred.

Principal amounts outstanding and total assets of SPEs resulting from continuing involvement

end of	2022	2021
CHF million		
CMBS		
Principal amount outstanding	17,193	15,428
Total assets of SPEs	24,625	23,205
RMBS		
Principal amount outstanding	41,552	56,990
Total assets of SPEs	41,552	56,990
Other asset-backed financings		
Principal amount outstanding	21,939	24,856
Total assets of SPEs	54,609	57,797

Principal amount outstanding relates to assets transferred from the Group and does not include principal amounts for assets transferred from third parties.

Fair value of beneficial interests

The fair value measurement of the beneficial interests held at the time of transfer and as of the reporting date that result from any continuing involvement is determined using fair value estimation techniques, such as the present value of estimated future cash flows that incorporate assumptions that market participants customarily use in these valuation techniques. The fair value of the assets or liabilities that result from any continuing involvement does not include any benefits from financial instruments that the Group may utilize to hedge the inherent risks.

“paid through”, premiums due to guarantors, CP obligations, and residual interests, whether in the form of debt or equity.

Key economic assumptions at the time of transfer

- Refer to “Fair value measurement” in Note 36 – Financial instruments for further information on the fair value hierarchy.

Key economic assumptions used in measuring fair value of beneficial interests at time of transfer

at time of transfer, in	2022		2021		2020	
	CMBS	RMBS	CMBS	RMBS	CMBS	RMBS
CHF million, except where indicated						
Fair value of beneficial interests	486	847	196	2,594	342	2,692
of which level 2	415	762	170	2,126	305	2,398
of which level 3	71	85	26	468	37	294
Weighted-average life, in years	4.1	9.5	5.2	5.3	6.4	3.8
Prepayment speed assumption (rate per annum), in % ¹	— ²	5.0–22.2	— ²	3.0–37.7	— ²	1.0–47.0
Cash flow discount rate (rate per annum), in % ³	3.5–15.7	2.8–53.8	1.8–5.0	1.0–33.4	1.4–20.9	0.2–40.8
Expected credit losses (rate per annum), in % ⁴	2.7–5.6	1.3–49.8	0.9–4.3	0.1–32.5	1.9–8.6	1.6–22.9

Transfers of assets in which the Group does not have beneficial interests are not included in this table.

- Prepayment speed assumption (PSA) is an industry standard prepayment speed metric used for projecting prepayments over the life of a residential mortgage loan. PSA utilizes the constant prepayment rate (CPR) assumptions. A 100% prepayment assumption assumes a prepayment rate of 0.2% per annum of the outstanding principal balance of mortgage loans in the first month. This increases by 0.2 percentage points thereafter during the term of the mortgage loan, leveling off to a CPR of 6% per annum beginning in the 30th month and each month thereafter during the term of the mortgage loan. 100 PSA equals 6 CPR.
- To deter prepayment, commercial mortgage loans typically have prepayment protection in the form of prepayment lockouts and yield maintenances.
- The rate is based on the weighted-average yield on the beneficial interests.
- The range of expected credit losses only reflects instruments with an expected credit loss greater than zero unless all of the instruments have an expected credit loss of zero.

Key economic assumptions as of the reporting date

The following table provides the sensitivity analysis of key economic assumptions used in measuring the fair value of beneficial interests held in SPEs as of December 31, 2022 and 2021.

Key economic assumptions used in measuring fair value of beneficial interests held in SPEs

end of	2022			2021		
	CMBS ¹	RMBS	Other asset-backed financing activities ²	CMBS ¹	RMBS	Other asset-backed financing activities ²
CHF million, except where indicated						
Fair value of beneficial interests	517	1,050	519	281	2,310	402
of which non-investment grade	111	137	34	55	370	27
Weighted-average life, in years	2.8	9.0	5.1	3.9	4.7	5.5
Prepayment speed assumption (rate per annum), in % ³	—	2.4–21.4	—	—	5.1–41.9	—
Impact on fair value from 10% adverse change	—	(16.5)	—	—	(31.1)	—
Impact on fair value from 20% adverse change	—	(32.7)	—	—	(59.8)	—
Cash flow discount rate (rate per annum), in % ⁴	5.4–42.1	4.4–29.6	4.1–41.9	1.7–50.7	0.7–35.5	0.3–14.7
Impact on fair value from 10% adverse change	(8.2)	(41.6)	(10.5)	(3.5)	(38.1)	(4.9)
Impact on fair value from 20% adverse change	(16.1)	(79.6)	(20.5)	(6.8)	(73.3)	(9.7)
Expected credit losses (rate per annum), in % ⁵	1.1–29.2	1.5–25.5	0.5–37.9	0.6–8.4	0.4–34.2	0.7–13.3
Impact on fair value from 10% adverse change	(4.6)	(19.7)	(5.7)	(2.5)	(28.5)	(4.3)
Impact on fair value from 20% adverse change	(9.1)	(38.2)	(11.1)	(4.9)	(54.8)	(8.4)

- To deter prepayment, commercial mortgage loans typically have prepayment protection in the form of prepayment lockouts and yield maintenances.
- CDOs and CLOs within this category are generally structured to be protected from prepayment risk.

- 3 PSA is an industry standard prepayment speed metric used for projecting prepayments over the life of a residential mortgage loan. PSA utilizes the CPR assumptions. A 100% prepayment assumption assumes a prepayment rate of 0.2% per annum of the outstanding principal balance of mortgage loans in the first month. This increases by 0.2 percentage points thereafter during the term of the mortgage loan, leveling off to a CPR of 6% per annum beginning in the 30th month and each month thereafter during the term of the mortgage loan. 100 PSA equals 6 CPR.
- 4 The rate is based on the weighted-average yield on the beneficial interests.
- 5 The range of expected credit losses only reflects instruments with an expected credit loss greater than zero unless all of the instruments have an expected credit loss of zero.

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These sensitivities are hypothetical and do not reflect economic hedging activities. Changes in fair value based on a 10% or 20% variation in assumptions generally cannot be extrapolated because the relationship of the change in assumption to the change in fair value may not be linear. Also, the effect of a variation in a particular assumption on the fair value of the beneficial interests is calculated without changing any other assumption. In practice, changes in one assumption may result in changes in other assumptions (for example, increases in market interest rates may result in lower prepayments and increased credit losses), which might magnify or counteract the sensitivities.

Transfers of financial assets where sale treatment was not achieved

The following table provides the carrying amounts of transferred financial assets and the related liabilities where sale treatment was not achieved as of December 31, 2022 and 2021.

- Refer to “Note 37 – Assets pledged and collateral” for further information.

Carrying amounts of transferred financial assets and liabilities where sale treatment was not achieved

end of	2022	2021
CHF million		
RMBS		
Other assets	0	257
Liability to SPEs, included in other liabilities	0	(257)
Other asset-backed financings		
Trading assets	366	557
Other assets	154	200
Liability to SPEs, included in other liabilities	(520)	(757)

Securities sold under repurchase agreements and securities lending transactions accounted for as secured borrowings

For securities sold under repurchase agreements and securities lending transactions accounted for as secured borrowings, US GAAP requires the disclosure of the collateral pledged and the associated risks to which a transferor continues to be exposed after the transfer. This provides an understanding of the nature and risks of short-term collateralized financing obtained through these types of transactions.

Securities sold under repurchase agreements and securities lending transactions represent collateralized financing transactions used to earn net interest income, increase liquidity or facilitate trading activities. These transactions are collateralized principally by government debt securities, corporate debt securities, asset-backed securities, equity securities and other collateral and have terms ranging from on demand to a longer period of time.

In the event of the Group’s default or a decline in fair value of collateral pledged, the repurchase agreement provides the counter-party with the right to liquidate the collateral held or request additional collateral. Similarly, in the event of the Group’s default, the securities lending transaction provides the counterparty the right to liquidate the securities borrowed.

The following tables provide the gross obligation relating to securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral by the class of collateral pledged and by remaining contractual maturity as of December 31, 2022 and 2021.

Securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral – by class of collateral pledged

end of	2022	2021
CHF billion		
Government debt securities	17.0	15.9
Corporate debt securities	6.9	9.6
Asset-backed securities	0.9	4.6
Equity securities	0.2	0.5
Other	5.1	5.6
Securities sold under repurchase agreements	30.1	36.2
Government debt securities	0.2	13.9
Corporate debt securities	0.3	0.3
Asset-backed securities	0.2	0.3
Equity securities	0.1	1.0
Other	0.1	0.2
Securities lending transactions	0.9	15.7
Government debt securities	1.2	3.6
Corporate debt securities	0.4	0.6
Asset-backed securities	0.1	0.0
Equity securities	1.3	10.8
Obligation to return securities received as collateral, at fair value	3.0	15.0
Total	34.0	66.9

Securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral – by remaining contractual maturity

end of	No stated maturity ¹	Remaining contractual maturities			Total
		Up to 30 days ²	31–90 days	More than 90 days	
2022 (CHF billion)					
Securities sold under repurchase agreements	4.0	12.7	5.9	7.5	30.1
Securities lending transactions	0.5	0.2	0.0	0.2	0.9
Obligation to return securities received as collateral, at fair value	3.0	0.0	0.0	0.0	3.0
Total	7.5	12.9	5.9	7.7	34.0
2021 (CHF billion)					
Securities sold under repurchase agreements	5.2	15.7	6.0	9.3	36.2
Securities lending transactions	2.3	1.7	1.6	10.1	15.7
Obligation to return securities received as collateral, at fair value	15.0	0.0	0.0	0.0	15.0
Total	22.5	17.4	7.6	19.4	66.9

1 Includes contracts with no contractual maturity that may contain termination arrangements subject to a notice period.

2 Includes overnight transactions.

- Refer to “Note 28 – Offsetting of financial assets and financial liabilities” for further information on the gross amount of securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral and the net amounts disclosed in the consolidated balance sheets.

Variable interest entities

As a normal part of its business, the Group engages in various transactions that include entities that are considered VIEs and are grouped into three primary categories: collateralized debt obligations (CDOs)/CLOs, CP conduits and financial intermediation. VIEs are SPEs that typically either lack sufficient equity to finance their activities without additional subordinated financial support or are structured such that the holders of the voting rights do not substantively participate in the gains and losses of the entity. VIEs may be sponsored by the Group or third parties. Such entities are required to be assessed for consolidation, compelling the primary beneficiary to consolidate the VIE. The consolidation assessment requires an entity to determine whether it has the power to direct the activities that most significantly affect the economics of the VIE as well as whether the reporting entity has potentially significant benefits or losses in the VIE. The primary beneficiary assessment must be re-evaluated on an ongoing basis.

Application of the requirements for consolidation of VIEs may require the exercise of significant judgment. In the event consolidation of a VIE is required, the exposure to the Group is limited to that portion of the VIE’s assets attributable to any variable interest held by the Group prior to any risk management activities to hedge the Group’s net exposure. Any interests held in the VIE by third parties, even though consolidated by the Group, will not typically impact its results of operations.

Transactions with VIEs are generally executed to facilitate securitization activities or to meet specific client needs, such as providing liquidity or investing opportunities, and, as part of these activities, the Group may hold interests in the VIEs.

Securitization-related transactions with VIEs involve selling or purchasing assets as well as possibly entering into related derivatives with those VIEs, providing liquidity, credit or other support. Other transactions with VIEs include derivative transactions in the Group’s capacity as the prime broker. The Group also enters into lending arrangements with VIEs for the purpose of financing projects or the acquisition of assets. Typically, the VIE’s assets are restricted in nature in that they are held primarily to satisfy the obligations of the entity. Further, the Group is involved with VIEs which were formed for the purpose of offering alternative investment solutions to clients. Such VIEs relate primarily to private equity investments, fund-linked vehicles or funds of funds, where the Group acts as structurer, manager, distributor, broker, market maker or liquidity provider.

As a consequence of these activities, the Group holds variable interests in VIEs. Such variable interests consist of financial instruments issued by VIEs and which are held by the Group, certain derivatives with VIEs or loans to VIEs. Guarantees issued by the Group to or on behalf of VIEs may also qualify as variable interests. For such guarantees, including derivatives that act as guarantees, the notional amount of the respective guarantees is presented to represent the exposure. In general, investors in consolidated VIEs do not have recourse to the Group in the event of a default, except where a guarantee was provided to the investors or where the Group is the counterparty to a derivative transaction involving VIEs.

Total assets of consolidated and non-consolidated VIEs for which the Group has involvement represent the total assets of the VIEs even though the Group’s involvement may be significantly less due to interests held by third-party investors. The asset balances for non-consolidated VIEs where the Group has significant involvement represent the most current information available to the Group regarding the remaining principal balance of assets owned. In most cases, the asset balances represent an amortized cost basis without regards to impairments in fair value, unless fair value information is readily available.

The Group's maximum exposure to loss is different from the carrying value of the assets of the VIE. This maximum exposure to loss consists of the carrying value of the Group variable interests held as trading assets, derivatives and loans, the notional amount of guarantees and off-balance sheet commitments to VIEs, rather than the amount of total assets of the VIEs. The maximum exposure to loss does not reflect the Group's risk management activities, including effects from financial instruments that the Group may utilize to economically hedge the risks inherent in these VIEs. The economic risks associated with VIE exposures held by the Group, together with all relevant risk mitigation initiatives, are included in the Group's risk management framework.

The Group has not provided financial or other support to consolidated or non-consolidated VIEs that it was not contractually required to provide.

Collateralized debt and loan obligations

The Group engages in CDO/CLO transactions to meet client and investor needs, earn fees and sell financial assets and, for CLOs, loans. The Group may act as underwriter, placement agent or asset manager and may warehouse assets prior to the closing of a transaction. As part of its structured finance business, the Group purchases loans and other debt obligations from and on behalf of clients for the purpose of securitization. The loans and other debt obligations are sold to VIEs, which in turn issue CDO/ CLOs to fund the purchase of assets such as investment grade and high yield corporate debt instruments.

Typically, the collateral manager in a managed CDO/CLO is deemed to be the entity that has the power to direct the activities that most affect the economics of the entity. In a static CDO/ CLO this "power" role is more difficult to analyze and may be the sponsor of the entity or the CDS counterparty.

CDO/CLOs provide credit risk exposure to a portfolio of ABS or loans (cash CDO/CLOs) or a reference portfolio of securities or loans (synthetic CDO/CLOs). Cash CDO/CLO transactions hold actual securities or loans whereas synthetic CDO/CLO transactions use CDS to exchange the underlying credit risk instead of using cash assets. The Group may also act as a derivative counterparty to the VIEs, which are typically not variable interests, and may invest in portions of the notes or equity issued by the VIEs. The CDO/CLO entities may have actively managed portfolios or static portfolios.

The securities issued by these VIEs are payable solely from the cash flows of the related collateral, and third-party creditors of these VIEs do not have recourse to the Group in the event of default.

The Group's exposure in CDO/CLO transactions is typically limited to interests retained in connection with its underwriting or market-making activities. Unless the Group has been deemed to have "power" over the entity and these interests are potentially significant, the Group is not the primary beneficiary of the vehicle

and does not consolidate the entity. The Group's maximum exposure to loss does not include any effects from financial instruments used to economically hedge the risks of the VIEs.

Commercial paper conduit

The Group acts as the administrator and provider of liquidity and credit enhancement facilities for Alpine Securitization Ltd (Alpine), a multi-seller asset-backed CP conduit used for client and Group financing purposes. Alpine discloses to CP investors certain portfolio and asset data and submits its portfolio to rating agencies for public ratings on its CP. This CP conduit purchases assets such as loans and receivables or enters into reverse repurchase agreements and finances such activities through the issuance of CP backed by these assets. In addition to CP, Alpine may also issue term notes with maturities up to 30 months. The Group (including Alpine) can enter into liquidity facilities with third-party entities pursuant to which it may be required to purchase assets from these entities to provide them with liquidity and credit support. The financing transactions are structured to provide credit support in the form of over-collateralization and other asset-specific enhancements. Alpine is a separate legal entity that is wholly owned by the Group. However, its assets are available to satisfy only the claims of its creditors. In addition, the Group, as administrator and liquidity facility provider, has significant exposure to and power over the activities of Alpine. Alpine is considered a VIE for accounting purposes and the Group is deemed the primary beneficiary and consolidates this entity.

The overall average maturity of Alpine's outstanding CP was approximately 249 days as of December 31, 2022, Alpine's CP had exposures mainly in reverse repurchase agreements with a Group entity, solar loans and leases, consumer loans and car loans and leases.

The Group's financial commitment to this CP conduit consists of obligations under liquidity agreements. The liquidity agreements are asset-specific arrangements, which require the Group to provide short-term financing to the CP conduit or to purchase assets from the CP conduit in certain circumstances, including, but not limited to, a lack of liquidity in the CP market such that the CP conduit cannot refinance its obligations or a default of an underlying asset. In such circumstances, the Group may be viewed as the primary beneficiary of specified assets referenced under liquidity agreements, resulting in consolidation of specified assets, which are included as part of the consolidated VIEs table. The asset-specific credit enhancements provided by the client seller of the assets remain unchanged as a result of such a purchase. In entering into such agreements, the Group reviews the credit risk associated with these transactions on the same basis that would apply to other extensions of credit.

The Group enters into liquidity facilities with CP conduits administrated and sponsored by third parties. These third-party CP conduits are considered to be VIEs for accounting purposes. The Group is not the primary beneficiary and generally does not consolidate these third-party CP conduits. The Group's financial

commitment to these third-party CP conduits consists of obligations under liquidity agreements. The liquidity agreements are asset-specific arrangements, which require the Group to provide short-term financing to the third-party CP conduits or to purchase assets from these CP conduits in certain circumstances, including, but not limited to, a lack of liquidity in the CP market such that the CP conduits cannot refinance their obligations or a default of an underlying asset. As of December 31, 2022, certain liquidity facilities with third-party CP conduits referenced groups of specified assets and liabilities within a VIE for which the Group is the primary beneficiary which required consolidation. The asset-specific credit enhancements, if any, provided by the client seller of the assets remain unchanged as a result of such a purchase. In entering into such agreements, the Group reviews the credit risk associated with these transactions on the same basis that would apply to other extensions of credit. In some situations, the Group can enter into liquidity facilities with these third-party CP conduits through Alpine.

The Group's economic risks associated with the Alpine CP conduit and the third-party CP conduits are included in the Group's risk management framework including counterparty, economic risk capital and scenario analysis.

Financial intermediation

The Group has significant involvement with VIEs in its role as a financial intermediary on behalf of clients.

The Group considers the likelihood of incurring a loss equal to the maximum exposure to be remote because of the Group's risk mitigation efforts, including, but not limited to, economic hedging strategies and collateral arrangements. The Group's economic risks associated with consolidated and non-consolidated VIE exposures arising from financial intermediation, together with all relevant risk mitigation initiatives, are included in the Group's risk management framework.

Financial intermediation consists of securitizations, funds, loans, and other vehicles.

Securitizations

Securitizations are primarily CMBS, RMBS and ABS vehicles. The Group acts as an underwriter, market maker, liquidity provider, derivative counterparty and/or provider of credit enhancements to VIEs related to certain securitization transactions.

The maximum exposure to loss is the carrying value of the loan securities and derivative positions that are variable interests, if any, plus the exposure arising from any credit enhancements the Group provided. The Group's maximum exposure to loss does not include any effects from financial instruments used to economically hedge the risks of the VIEs.

The activities that have the most significant impact on the securitization vehicle are the decisions relating to defaulted loans, which

are controlled by the servicer. The party that controls the servicing has the ability to make decisions that significantly affect the result of the activities of the securitization vehicle. If a securitization vehicle has multiple parties that control servicing over specific assets, the Group determines it has power when it has control over the servicing of greater than 50% of the assets in the securitization vehicle. When a servicer or its related party also has an economic interest that has the potential to absorb a significant portion of the gains and/or losses, it will be deemed the primary beneficiary and consolidate the vehicle. If the Group determines that it controls the relevant servicing, it then determines if it has the obligation to absorb losses from, or the right to receive benefits of, the securitization vehicle that could potentially be significant to the vehicle, primarily by evaluating the amount and nature of securities issued by the vehicle that it holds. Factors considered in this analysis include the level of subordination of the securities held as well as the size of the position, based on the percentage of the class of securities and the total deal classes of securities issued. The more subordinated the level of securities held, the more likely it is that the Group will be the primary beneficiary. This consolidation analysis is performed each reporting period based on changes in inventory and the levels of assets remaining in the securitization. The Group typically consolidates securitization vehicles when it is the servicer and has holdings stemming from its role as underwriter. Short-term market-making holdings in vehicles are not typically considered to be potentially significant for the purposes of this assessment.

In the case of re-securitizations of previously issued RMBS securities, the re-securitization vehicles are passive in nature and do not have any significant ongoing activities that require management, and decisions relating to the design of the securitization transaction at its inception are the key power relating to the vehicle. Activities at inception include selecting the assets and determining the capital structure. The power over a re-securitization vehicle is typically shared between the Group and the investor(s) involved in the design and creation of the vehicle. The Group concludes that it is the primary beneficiary of a re-securitization vehicle when it owns substantially all of the bonds issued from the vehicle.

Funds

Funds include investment structures such as mutual funds, funds of funds, private equity funds and fund-linked products where the investors' interest is typically in the form of debt rather than equity, thereby making them VIEs. The Group may have various relationships with such VIEs in the form of structurer, investment advisor, investment manager, administrator, custodian, underwriter, placement agent, market maker and/or as prime broker. These activities include the use of VIEs in structuring fund-linked products, hedge funds of funds or private equity investments to provide clients with investment opportunities in alternative investments. In such transactions, a VIE holds underlying investments and issues securities that provide the investors with a return based on the performance of those investments.

The maximum exposure to loss consists of the fair value of instruments issued by such structures that are held by the Group as a result of underwriting or market-making activities, financing provided to the vehicles and the Group's exposure resulting from principal protection and redemptions features. The investors typically retain the risk of loss on such transactions, but for certain fund types, the Group may provide principal protection on the securities to limit the investors' exposure to downside market risk. The Group's maximum exposure to loss does not include any effects from financial instruments used to economically hedge the risk of the VIEs.

Another model is used to assess funds for consolidation under US GAAP. Rather than the consolidation model which incorporates power and the potential to absorb significant risk and rewards, a previous consolidation model is used which results in the Group being the primary beneficiary and consolidating the funds if it holds more than 50% of their outstanding issuances.

Loans

The Group provides loans to financing vehicles owned or sponsored by clients or third-parties. These tailored lending arrangements are established to purchase, lease or otherwise finance and manage clients' assets and include financing of specified client assets, of an individual single-asset used by the client or business ventures. The respective owner of the assets or manager of the businesses provides the equity in the vehicle.

The maximum exposure to loss is the carrying value of the Group's loan exposure, which is subject to the same credit risk management procedures as loans issued directly to clients. The clients' creditworthiness is carefully reviewed, loan-to-value ratios are strictly set and, in addition, clients provide equity, additional collateral or guarantees, all of which significantly reduce the Group's exposure. The Group considers the likelihood of incurring a loss equal to the maximum exposure to be remote because of

the Group's risk mitigation efforts, which includes over-collateralization and effective monitoring to ensure that a sufficient loan-to-value ratio is maintained.

The third-party sponsor of the VIE will typically have control over the assets during the life of the structure and have the potential to absorb significant gains and losses; the Group is typically not the primary beneficiary of these structures and will not have to consolidate them. However, a change in the structure, such as a default of the sponsor, may result in the Group gaining control over the assets. If the Group's lending is significant, it may then be required to consolidate the entity.

Other

Other includes additional vehicles where the Group provides financing and trust preferred issuance vehicles. Trust preferred issuance vehicles are utilized to assist the Group in raising capital-efficient financing. The VIE issues preference shares which are guaranteed by the Group and uses the proceeds to purchase the debt of the Group. The Group's guarantee of its own debt is not considered a variable interest and, as it has no holdings in these vehicles, the Group has no maximum exposure to loss. Non-consolidated VIEs include only the total assets of trust preferred issuance vehicles, as the Group has no variable interests with these entities.

Consolidated VIEs

The Group has significant involvement with VIEs in its role as a financial intermediary on behalf of clients. The Group consolidates all VIEs related to financial intermediation for which it is the primary beneficiary.

The consolidated VIEs table provides the carrying amounts and classifications of the assets and liabilities of consolidated VIEs as of December 31, 2022 and 2021.

Consolidated VIEs in which the Group was the primary beneficiary

end of	CDO/ CLO	CP Conduit	Financial intermediation			Total	
			Securi- tizations	Funds	Loans		Other
2022 (CHF million)							
Cash and due from banks	15	94	68	17	24	11	229
Trading assets	0	954	1,154	23	457	0	2,588
Other investments	0	0	0	58	587	136	781
Net loans	0	3,260	0	0	16	134	3,410
Other assets	281	2,466	1,349	39	53	417	4,605
of which loans held-for-sale	279	2,445	119	21	0	0	2,864
of which premises and equipment	0	0	0	0	12	0	12
Total assets of consolidated VIEs	296	6,774	2,571	137	1,137	698	11,613
Trading liabilities	0	1,057	0	0	6	0	1,063
Short-term borrowings	0	3,124	0	13	0	0	3,137
Long-term debt	84	0	1,860	0	0	152	2,096
Other liabilities	0	49	2	19	50	70	190
Total liabilities of consolidated VIEs	84	4,230	1,862	32	56	222	6,486
2021 (CHF million)							
Cash and due from banks	0	1	42	25	27	13	108
Trading assets	0	0	1,158	54	610	0	1,822
Other investments	0	0	0	65	789	161	1,015
Net loans	0	1,022	317	0	28	33	1,400
Other assets	0	31	604	78	108	675	1,496
of which loans held-for-sale	0	0	50	23	0	1	74
of which premises and equipment	0	0	0	0	27	0	27
Total assets of consolidated VIEs	0	1,054	2,121	222	1,562	882	5,841
Trading liabilities	0	0	0	0	8	0	8
Short-term borrowings	0	4,337	0	15	0	0	4,352
Long-term debt	0	0	1,342	0	3	46	1,391
Other liabilities	0	67	1	20	60	83	231
Total liabilities of consolidated VIEs	0	4,404	1,343	35	71	129	5,982

Non-consolidated VIEs

The non-consolidated VIEs table provides the carrying amounts and classification of the assets of variable interests recorded in the Group's consolidated balance sheets, maximum exposure to loss and total assets of the non-consolidated VIEs.

Total variable interest assets for which the company has involvement represent the carrying value of the variable interests in non-consolidated VIEs that are recorded in the consolidated balance sheet of the Group (for example, direct holdings in investment funds, loans and other receivables).

Maximum exposure to loss represents the carrying value of total variable interest assets in non-consolidated VIEs of the Group and the notional amounts of guarantees and off-balance sheet commitments which are variable interests that have been extended to non-consolidated VIEs. Such amounts, particularly notional amounts of derivatives, guarantees and off-balance sheet commitments, do not represent the anticipated losses in connection with these transactions as they do not take into

consideration the effect of collateral, recoveries or the probability of loss. In addition, they exclude the effect of offsetting financial instruments that are held to mitigate these risks and have not been reduced by unrealized losses previously recorded by the Group in connection with guarantees, off-balance sheet commitments or derivatives.

Total assets of non-consolidated VIEs are the assets of the non-consolidated VIEs themselves and are typically unrelated to the exposures the Group has with these entities due to variable interests held by third-party investors. Accordingly, these amounts are not considered for risk management purposes.

Certain VIEs have not been included in the following table, including VIEs structured by third parties in which the Group's interest is in the form of securities held in the Group's inventory, certain repurchase financings to funds and single-asset financing vehicles not sponsored by the Group to which the Group provides financing but has very little risk of loss due to over-collateralization and/or guarantees, failed sales where the Group does not have any other holdings and other entities out of scope.

Non-consolidated VIEs

end of	CDO/ CLO	CP Conduit ¹	Financial intermediation				Total
			Securi- tizations	Funds	Loans	Other	
2022 (CHF million)							
Trading assets	214	0	3,877	750	7	1,816	6,664
Net loans	314	1,440	2,521	1,934	7,617	2,201	16,027
Other assets	6	0	3	124	4	884	1,021
Total variable interest assets	534	1,440	6,401	2,808	7,628	4,901	23,712
Maximum exposure to loss	547	4,374	9,514	2,808	9,999	5,490	32,732
Total assets of non-consolidated VIEs	9,713	7,297	79,322	116,010	38,632	14,620	265,594
2021 (CHF million)							
Trading assets	257	0	4,526	932	13	5,494	11,222
Net loans	268	1,005	940	2,403	8,774	1,986	15,376
Other assets	6	0	22	112	0	628	768
Total variable interest assets	531	1,005	5,488	3,447	8,787	8,108	27,366
Maximum exposure to loss	774	7,625	8,036	3,447	13,068	8,637	41,587
Total assets of non-consolidated VIEs	10,266	14,948	108,942	103,179	36,428	24,945	298,708

1 Includes liquidity facilities provided to third-party CP conduits through Alpine.

36 Financial instruments

The disclosure of the Group's financial instruments includes the following sections:

- Concentration of credit risk;
- Fair value measurement (including fair value hierarchy, level 3 reconciliation; transfers in and out of level 3; qualitative and quantitative disclosures of valuation techniques; qualitative discussion of the range of significant unobservable inputs; and investment funds measured at net asset value per share);
- Fair value option; and
- Financial instruments not carried at fair value.

Concentration of credit risk

Credit risk concentrations arise when a number of counterparties are engaged in similar business activities, are located in the same geographic region or when there are similar economic features that would cause their ability to meet contractual obligations to be similarly impacted by changes in economic conditions.

The Group has in place a credit risk appetite framework which provides for the oversight and control of concentrations of credit exposures by single name, product, industry, and country. The Group Credit Portfolio Management function under the Global Chief Credit Officer is responsible for monitoring the portfolio and assessing compliance with the framework and the portfolio limits and controls in place. Credit risk concentrations are identified and measured using a range of quantitative tools and metrics and are reported to the Credit Risk Appetite Committee on a monthly basis. The Group Credit Portfolio Management function performs portfolio reviews and detailed analyses of selected segments of the portfolio which are presented to the Credit Risk Appetite Committee and to other governance forums, including the Executive Board Risk Management Committee and the Board's Risk Committee, where appropriate.

From an industry point of view, the combined credit exposure of the Group is diversified. A substantial portion of the credit exposure is with individual clients, particularly through residential mortgages in Switzerland, corporate credit exposures and lombard lending arrangements, or relates to derivative and other financial transactions with financial institutions. In both cases, the customer base is extensive and the number and variety of transactions are broad. For transactions with financial institutions and corporations, the business is also geographically diverse, with operations focused in the Americas, Europe and, to a lesser extent, Asia Pacific.

Fair value measurement

A significant portion of the Group's financial instruments is carried at fair value. Deterioration of financial markets could significantly impact the fair value of these financial instruments and the results of operations.

The fair value of the majority of the Group's financial instruments is based on quoted prices in active markets or observable inputs. These instruments include government and agency securities, certain short-term borrowings, most investment grade corporate debt, certain high yield debt securities, exchange-traded and certain OTC derivatives and most listed equity securities.

In addition, the Group holds financial instruments for which no prices are available and which have significant unobservable inputs. For these instruments, the determination of fair value requires subjective assessment and judgment, depending on liquidity, pricing assumptions, the current economic and competitive environment and the risks affecting the specific instrument. In such circumstances, valuation is determined based on management's own judgments about the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk. These instruments include certain OTC derivatives, including interest rate, foreign exchange, equity and credit derivatives, certain corporate equity-linked securities, mortgage-related securities, private equity investments and certain loans and credit products, including leveraged finance, certain syndicated loans and certain high yield bonds, and life finance instruments. The fair value measurement disclosures exclude derivative transactions that are daily settled.

The fair value of financial instruments is impacted by factors such as benchmark interest rates, prices of financial instruments issued by third parties, commodity prices, foreign exchange rates and index prices or rates. In addition, valuation adjustments are an integral part of the valuation process when market prices are not indicative of the credit quality of a counterparty, and are applied to both OTC derivatives and debt instruments. The impact of changes in a counterparty's credit spreads (known as credit valuation adjustments) is considered when measuring the fair value of assets, and the impact of changes in the Group's own credit spreads (known as debit valuation adjustments) is considered when measuring the fair value of its liabilities. For OTC derivatives, the impact of changes in both the Group's and the counterparty's credit standing is considered when measuring their fair value, based on current CDS prices. The adjustments also take into account contractual factors designed to reduce the Group's credit exposure to a counterparty, such as collateral held and master netting agreements. For hybrid debt instruments with embedded derivative features, the impact of changes in the Group's credit standing is considered when measuring their fair value, based on current funded debt spreads.

US GAAP permits a reporting entity to measure the fair value of a group of financial assets and financial liabilities on the basis of the price that would be received to sell a net long position or paid to transfer a net short position for a particular risk exposure in an orderly transaction between market participants at the measurement date. As such, the Group continues to apply bid and offer adjustments to net portfolios of cash securities and/or derivative instruments to adjust the value of the net position from a mid-market price to the appropriate bid or offer level that would be realized under normal market conditions for the net long or net short position for a specific market risk. In addition, the Group reflects the net exposure to credit risk for its derivative instruments where the Group has legally enforceable agreements with its counterparties that mitigate credit risk exposure in the event of default.

Valuation adjustments are recorded in a reasonable and consistent manner that results in an allocation to the relevant disclosures in the notes to the financial statements as if the valuation adjustment had been allocated to the individual unit of account.

Fair value hierarchy

The levels of the fair value hierarchy are defined as follows:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that the Group has the ability to access. This level of the fair value hierarchy provides the most reliable evidence of fair value and is used to measure fair value whenever available.
- Level 2: Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly. These inputs include: (i) quoted prices for similar assets or liabilities in active markets; (ii) quoted prices for identical or similar assets or liabilities in markets that are not active, that is, markets in which there are few transactions for the asset or liability, the prices are not current or price quotations vary substantially either over time or among market makers, or in which little information is publicly available; (iii) inputs other than quoted prices that are observable for the asset or liability; or (iv) inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3: Significant unobservable inputs for the asset or liability. These inputs reflect the Group's own assumptions about the assumptions that market participants would use in pricing the asset or liability (including assumptions about risk). These inputs are developed based on the best information available in the circumstances, which include the Group's own data. The Group's own data used to develop unobservable inputs is adjusted if information indicates that market participants would use different assumptions.

The Group records net open positions at bid prices if long, or at ask prices if short, unless the Group is a market maker in such positions, in which case mid-pricing is utilized. Fair value measurements are not adjusted for transaction costs.

Qualitative disclosures of valuation techniques

Overview

The Group has implemented and maintains a valuation control framework, which is supported by policies and procedures that define the principles for controlling the valuation of the Group's financial instruments. Control functions such as Product Control and Risk Management review and approve significant valuation policies and procedures. The framework includes three main internal processes: (i) valuation governance; (ii) independent price verification and significant unobservable inputs review; and (iii) a cross-functional pricing model review. Through this framework, the Group determines the reasonableness of the fair value of its financial instruments.

On a monthly basis, meetings are held for each business line with senior representatives of the Front Office and Product Control to discuss independent price verification results, valuation adjustments, and other significant valuation issues. On a quarterly basis, a review of significant changes in the fair value of financial instruments is undertaken by Product Control and conclusions are reached regarding the reasonableness of those changes. Additionally, on a quarterly basis, meetings are held for each business line with senior representatives of the Front Office and control functions such as Product Control and Risk Management to discuss independent price verification results, valuation issues, business and market updates, as well as a review of significant changes in fair value from the prior quarter, significant unobservable inputs and prices used in valuation techniques, and valuation adjustments.

The valuation results are aggregated for reporting to the Valuation Risk Management Committee (VARMC) and the Audit Committee. The VARMC, which is comprised of Executive Board members and the heads of the business and control functions, meets to review and ratify valuation review conclusions, and to resolve significant valuation issues for the Group. Oversight of the valuation control framework is through specific and regular reporting on valuation directly to the Group's Executive Board through the VARMC.

One of the key components of the governance process is the segregation of duties between the Front Office and Product Control. The Front Office is responsible for measuring inventory at fair value on a daily basis, while Product Control is responsible for independently reviewing and validating those valuations on a periodic basis. The Front Office values the inventory using, wherever possible, observable market data which may include executed transactions, dealer quotes or broker quotes for the same or similar instruments. Product Control validates this inventory using independently sourced data that also includes executed transactions, dealer quotes, and broker quotes.

In general, Product Control utilizes independent pricing service data as part of its review process. Independent pricing service

data is analyzed to ensure that it is representative of fair value, including confirming that the data corresponds to executed transactions or executable broker quotes, review and assessment of contributors to ensure they are active market participants, review of statistical data and utilization of pricing challenges. The analysis also includes understanding the sources of the pricing service data and any models or assumptions used in determining the results. The purpose of the review is to judge the quality and reliability of the data for fair value measurement purposes and its appropriate level of usage within the Product Control independent valuation review.

For certain financial instruments the fair value is estimated in full or in part using valuation techniques based on assumptions that are not supported by market observable prices, rates or other inputs. In addition, there may be uncertainty about a valuation resulting from the choice of valuation technique or model used, the assumptions embedded in those models, the extent to which inputs are not market observable, or as a consequence of other elements affecting the valuation technique or model. Model calibration is performed when significant new market information becomes available or at a minimum on a quarterly basis as part of the business review of significant unobservable inputs for level 3 instruments. For models that have been deemed to be significant to the overall fair value of the financial instrument, model validation is performed as part of the periodic review of the related model.

The following information on the valuation techniques and significant unobservable inputs of the various financial instruments and the section “Uncertainty of fair value measurements at the reporting date from the use of significant unobservable inputs” should be read in conjunction with the tables “Assets and liabilities measured at fair value on a recurring basis”, “Quantitative information about level 3 assets measured at fair value on a recurring basis” and “Quantitative information about level 3 liabilities measured at fair value on a recurring basis”.

Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions

Securities purchased under resale agreements and securities sold under repurchase agreements are measured at fair value using discounted cash flow analysis. Future cash flows are discounted using observable market interest rate repurchase/resale curves for the applicable maturity and underlying collateral of the instruments. As such, the significant majority of both securities purchased under resale agreements and securities sold under repurchase agreements are included in level 2 of the fair value hierarchy. Structured resale and repurchase agreements include embedded derivatives, which are measured using the same techniques as described below for stand-alone derivative contracts held for trading purposes or used in hedge accounting relationships. If the value of the embedded derivative is determined using significant unobservable inputs, those structured resale and repurchase agreements included are classified as level 3 in the fair value hierarchy. The significant unobservable input is funding spread.

Securities purchased under resale agreements are usually fully collateralized or over-collateralized by government securities, money market instruments, corporate bonds, or other debt instruments. In the event of counterparty default, the collateral service agreement provides the Group with the right to liquidate the collateral held.

Debt securities

Foreign governments

Foreign government debt securities typically have quoted prices in active markets and are mainly categorized as level 1 instruments. Valuations of foreign government debt securities for which market prices are not available are based on yields reflecting credit rating, historical performance, delinquencies, loss severity, the maturity of the security, recent transactions in the market or other modeling techniques, which may involve judgment. Those securities where the price or model inputs are observable in the market are categorized as level 2 instruments, while those securities where prices are not observable and significant model inputs are unobservable are categorized as level 3 of the fair value hierarchy.

Corporates

Corporate bonds are priced to reflect current market levels either through recent market transactions or broker or dealer quotes. Where a market price for the particular security is not directly available, valuations are obtained based on yields reflected by other instruments in the specific or similar entity’s capital structure and adjusting for differences in seniority and maturity, benchmarking to a comparable security where market data is available (taking into consideration differences in credit, liquidity and maturity), or through the application of cash flow modeling techniques utilizing observable inputs, such as current interest rate curves and observable CDS spreads. Significant unobservable inputs may include correlation and price. For securities using market comparable price, the differentiation between level 2 and level 3 is based upon the relative significance of any yield adjustments as well as the accuracy of the comparison characteristics (i.e., the observable comparable security may be in the same country but a different industry and may have a different seniority level – the lower the comparability the more likely the security will be level 3).

RMBS, CMBS and CDO securities

Fair values of RMBS, CMBS and CDO may be available through quoted prices, which are often based on the prices at which similarly structured and collateralized securities trade between dealers and to and from customers. Fair values of RMBS, CMBS and CDO for which there are significant unobservable inputs are valued using capitalization rate and discount rate. Price may not be observable for fair value measurement purposes for many reasons, such as the length of time since the last executed transaction for the related security, use of a price from a similar instrument, or use of a price from an indicative quote. Fair values determined by market comparable price may include discounted cash flow models using the inputs credit spread, default rate, discount rate, prepayment rate and loss severity. Prices from similar observable instruments are used to calculate implied inputs which are then used to value unobservable instruments using discounted cash flow. The discounted cash flow price is then compared to the unobservable prices and assessed for reasonableness.

For most structured debt securities, determination of fair value requires subjective assessment depending on liquidity, ownership concentration, and the current economic and competitive environment. Valuation is determined based on the Front Office's own assumptions about how market participants would price the asset. Collateralized bond and loan obligations are split into various structured tranches and each tranche is valued based upon its individual rating and the underlying collateral supporting the structure. Valuation models are used to value both cash and synthetic CDOs.

Equity securities

The majority of the Group's positions in equity securities are traded on public stock exchanges for which quoted prices are readily and regularly available and are therefore categorized as level 1 instruments. Level 2 and level 3 equities include fund-linked products, convertible bonds or equity securities with restrictions that are not traded in active markets. Significant unobservable inputs may include earnings before interest, taxes, depreciation and amortization (EBITDA) multiple and market comparable price.

Derivatives

Derivatives held for trading purposes or used in hedge accounting relationships include both OTC and exchange-traded derivatives. The fair values of exchange-traded derivatives measured using observable exchange prices are included in level 1 of the fair value hierarchy. For exchange-traded derivatives where the volume of trading is low, the observable exchange prices may not be considered executable at the reporting date. These derivatives are valued in the same manner as similar OTC derivatives with observable inputs to valuation and are included in level 2 of the fair value hierarchy. If the significant inputs used to determine the fair value of the similar OTC derivative are not observable, the exchange-traded derivative is included in level 3 of the fair value hierarchy.

The fair values of OTC derivatives are determined on the basis of either industry standard models or internally developed proprietary models. Both model types use various observable and unobservable inputs in order to determine fair value. The inputs include those characteristics of the derivative that have a bearing on the economics of the instrument. The determination of the fair value of many derivatives involves only a limited degree of subjectivity because the required inputs are observable in the marketplace, while more complex derivatives may use unobservable inputs that rely on specific proprietary modeling assumptions. Where observable inputs (prices from exchanges, dealers, brokers or market consensus data providers) are not available, attempts are made to infer values from observable prices through model calibration (spot and forward rates, mean reversion, benchmark interest rate curves and volatility inputs for commonly traded option products). For inputs that cannot be derived from other sources, estimates from historical data may be made. OTC derivatives where the

majority of the value is derived from market observable inputs are categorized as level 2 instruments, while those where the majority of the value is derived from unobservable inputs are categorized as level 3 of the fair value hierarchy.

The valuation of derivatives includes an adjustment for the cost of funding uncollateralized OTC derivatives.

Interest rate derivatives

OTC vanilla interest rate products, such as interest rate swaps, swaptions and caps and floors are valued by discounting the anticipated future cash flows. The future cash flows and discounting are derived from market standard yield curves and industry standard volatility inputs. Where applicable, exchange-traded prices are also used to value exchange-traded futures and options and can be used in yield curve construction. For more complex products, inputs include, but are not limited to basis spread, correlation, credit spread, prepayment rate and volatility skew.

Foreign exchange derivatives

Foreign exchange derivatives include vanilla products such as spot, forward and option contracts where the anticipated discounted future cash flows are determined from foreign exchange forward curves and industry standard optionality modeling techniques. Where applicable, exchange-traded prices are also used for futures and option prices. For more complex products inputs include, but are not limited to, contingent probability, correlation and prepayment rate.

Equity and index-related derivatives

Equity derivatives include a variety of products ranging from vanilla options and swaps to exotic structures with bespoke payoff profiles. The main inputs in the valuation of equity derivatives may include buyback probability, correlation, gap risk, price and volatility.

Generally, the interrelationship between the correlation and volatility is positively correlated.

Credit derivatives

Credit derivatives include index, single-name and multi-name CDS in addition to more complex structured credit products. Vanilla products are valued using industry standard models and inputs that are generally market observable including credit spread and recovery rate.

Complex structured credit derivatives are valued using proprietary models requiring inputs such as correlation, credit spread, funding spread, loss severity, prepayment rate and recovery rate. These inputs are generally implied from available market observable data.

Other trading assets

Other trading assets primarily include life settlement and premium finance instruments and RMBS loans. Life settlement and premium finance instruments are valued using proprietary models with several inputs. The significant unobservable inputs of the fair

value for life settlement and premium finance instruments is the estimate of market implied life expectancy, while for RMBS loans it is market comparable price.

For life settlement and premium finance instruments, individual life expectancy rates are typically obtained by multiplying a base mortality curve for the general insured population provided by a professional actuarial organization together with an individual-specific multiplier. Individual-specific multipliers are determined based on data from third-party life expectancy data providers, which examine the insured individual's medical conditions, family history and other factors to arrive at a life expectancy estimate.

For RMBS loans, the use of market comparable price varies depending upon each specific loan. For some loans, similar to unobservable RMBS securities, prices from similar observable instruments are used to calculate implied inputs which are then used to value unobservable instruments using discounted cash flow. The discounted cash flow price is then compared to the unobservable prices and assessed for reasonableness. For other RMBS loans, the loans are categorized by specific characteristics, such as loan-to-value ratio, average account balance, loan type (single or multi-family), lien, seasoning, coupon, FICO score, locality, delinquency status, cash flow velocity, roll rates, loan purpose, occupancy, servicers advance agreement type, modification status, Federal Housing Administration insurance, property value and documentation quality. Loans with unobservable prices are put into consistent buckets which are then compared to market observable comparable prices in order to assess the reasonableness of those unobservable prices.

Other investments

Private equity funds, hedge funds and equity method investment funds

Equity method investment funds principally include equity investments in the form of a) direct investments in third-party hedge funds, private equity funds and funds of funds, b) equity method investments where the Group has the ability to significantly influence the operating and financial policies of the investee, and c) direct investments in non-marketable equity securities.

Direct investments in third-party hedge funds, private equity funds and funds of funds are measured at fair value based on their published NAVs as permitted by ASC Topic 820 – Fair Value Measurement. In some cases, NAVs may be adjusted where there is sufficient evidence that the NAV published by the investment manager is not in line with the fund's observable market data, it is probable that the investment will be sold for an amount other than NAV or other circumstances exist that would require an adjustment to the published NAV. Although rarely adjusted, significant judgment is involved in making any adjustments to the published NAVs. The investments for which the fair value is measured using the NAV practical expedient are not categorized within the fair value hierarchy.

Direct investments in non-marketable equity securities consist of both real estate investments and non-real estate investments.

Equity-method investments and direct investments in non-marketable equity securities are initially measured at their transaction price, as this is the best estimate of fair value. Thereafter, these investments are individually measured at fair value based upon a number of factors that include any recent rounds of financing involving third-party investors, comparable company transactions, multiple analyses of cash flows or book values, or discounted cash flow analyses. The availability of information used in these modeling techniques is often limited and involves significant judgment in evaluating these different factors over time. As a result, these investments are included in level 3 of the fair value hierarchy.

Life finance instruments

Life finance instruments include single premium immediate annuities (SPIA) and other premium finance instruments. Life finance instruments are valued in a similar manner as described for life settlement and premium finance instruments under the other trading assets section above.

Loans

The Group's loan portfolio which is measured at fair value primarily consists of commercial and industrial loans and loans to financial institutions. Within these categories, loans measured at fair value include commercial loans, real estate loans, corporate loans, leverage finance loans and emerging market loans. Fair value is based on recent transactions and quoted prices, where available. Where recent transactions and quoted prices are not available, fair value may be determined by relative value benchmarking (which includes pricing based upon another position in the same capital structure, other comparable loan issues, generic industry credit spreads, implied credit spreads derived from CDS for the specific borrower, and enterprise valuations) or calculated based on the exit price of the collateral, based on current market conditions.

Both the funded and unfunded portion of revolving credit lines on the corporate lending portfolio are valued using a loan pricing model, which requires estimates of significant inputs including credit conversion factors, credit spreads, recovery rates and weighted average life of the loan. Significant unobservable inputs may include credit spread and price.

The Group's other assets and liabilities include mortgage loans held in conjunction with securitization activities and assets and liabilities of VIEs and mortgage securitizations that do not meet the criteria for sale treatment under US GAAP. The fair value of mortgage loans held in conjunction with securitization activities is determined on a whole-loan basis and is consistent with the valuation of RMBS loans discussed in "Other trading assets" above. Whole-loan valuations are calculated based on the exit price reflecting the current market conditions. The fair value of assets and liabilities of VIEs and mortgage securitizations that do not meet the criteria for sale treatment under US GAAP are determined based on the quoted prices for securitized bonds, where available, or on cash flow analyses for securitized bonds, when quoted prices are not available. The fair value of the consolidated

financial assets of RMBS and CMBS securitization vehicles, which qualify as collateralized financing entities, are measured on the basis of the more observable fair value of the VIEs' financial liabilities.

Short-term borrowings and long-term debt

The Group's short-term borrowings and long-term debt include structured notes (hybrid financial instruments that are both bifurcable and non-bifurcable) and vanilla debt. The fair value of structured notes is based on quoted prices, where available. When quoted prices are not available, fair value is determined by using a discounted cash flow model incorporating the Group's credit spreads, the value of derivatives embedded in the debt and the residual term of the issuance based on call options. Derivatives structured into the issued debt are valued consistently with the Group's stand-alone derivative contracts held for trading purposes or used in hedge accounting relationships as discussed

above. The fair value of structured debt is heavily influenced by the combined call options and performance of the underlying derivative returns. Significant unobservable inputs for short-term borrowings and long-term debt include buyback probability, correlation, credit spread, gap risk, mean reversion, price, recovery rate and volatility.

Generally, the interrelationships between correlation, credit spread, gap risk and volatility inputs are positively correlated.

Other liabilities

Failed sales

These liabilities represent the financing of assets that did not achieve sale accounting treatment under US GAAP. Failed sales are valued in a manner consistent with the related underlying financial instruments.

Assets and liabilities measured at fair value on a recurring basis

end of 2022	Level 1	Level 2	Level 3	Netting impact ¹	Asset measured at net asset value per share ²	Total
Assets (CHF million)						
Cash and due from banks	0	198	0	—	—	198
Interest-bearing deposits with banks	0	14	0	—	—	14
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	100	40,693	0	—	—	40,793
Securities received as collateral	2,318	660	0	—	—	2,978
Trading assets	33,697	104,234	3,828	(76,841)	543	65,461
of which debt securities	13,084	22,862	1,211	—	31	37,188
of which foreign governments	10,117	5,597	86	—	—	15,800
of which corporates	2,718	4,572	413	—	31	7,734
of which RMBS	5	10,417	444	—	—	10,866
of which CDO	197	941	216	—	—	1,354
of which equity securities	11,745	676	222	—	512	13,155
of which derivatives	7,571	78,710	1,661	(76,841)	—	11,101
of which interest rate products	1,617	31,051	671	—	—	—
of which foreign exchange products	24	25,466	17	—	—	—
of which equity/index-related products	5,927	18,669	295	—	—	—
of which credit derivatives	0	3,059	130	—	—	—
of which other derivatives	0	196	548	—	—	—
of which other trading assets	1,297	1,986	734	—	—	4,017
Investment securities	2	795	0	—	—	797
Other investments	0	17	3,312	—	401	3,730
of which other equity investments	0	17	2,724	—	328	3,069
of which life finance instruments	0	0	587	—	—	587
Loans	0	6,318	1,040	—	—	7,358
of which commercial and industrial loans	0	2,381	300	—	—	2,681
of which financial institutions	0	2,591	398	—	—	2,989
of which government and public institutions	0	1,112	254	—	—	1,366
Other intangible assets (mortgage servicing rights)	0	44	359	—	—	403
Other assets	78	8,315	773	(220)	—	8,946
of which failed purchases	54	664	12	—	—	730
of which loans held-for-sale	0	7,165	648	—	—	7,813
Total assets at fair value	<u>36,195</u>	<u>161,288</u>	<u>9,312</u>	<u>(77,061)</u>	<u>944</u>	<u>130,678</u>

¹ Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.

² In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis (continued)

end of 2022	Level 1	Level 2	Level 3	Netting impact ¹	Liabilities measured at net asset value per share ²	Total
Liabilities (CHF million)						
Due to banks	0	490	0	—	—	490
Customer deposits	0	2,212	252	—	—	2,464
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	0	14,042	0	—	—	14,042
Obligation to return securities received as collateral	2,318	660	0	—	—	2,978
Trading liabilities	13,131	83,348	1,881	(80,022)	—	18,338
of which short positions	6,557	2,595	16	—	—	9,168
of which debt securities	3,229	2,232	1	—	—	5,462
of which foreign governments	3,150	272	0	—	—	3,422
of which corporates	53	1,957	1	—	—	2,011
of which equity securities	3,328	363	15	—	—	3,706
of which derivatives	6,574	80,753	1,640	(80,022)	—	8,945
of which interest rate products	1,566	30,288	118	—	—	—
of which foreign exchange products	20	26,176	1	—	—	—
of which equity/index-related products	4,981	20,731	1,083	—	—	—
of which credit derivatives	0	3,157	242	—	—	—
of which other derivatives	4	211	196	—	—	—
of which other trading liabilities	0	0	225	—	—	225
Short-term borrowings	0	6,330	453	—	—	6,783
Long-term debt	0	52,014	6,707	—	—	58,721
of which structured notes over one year and up to two years	0	10,697	439	—	—	11,136
of which structured notes over two years	0	23,409	4,307	—	—	27,716
of which other debt instruments over two years	0	2,961	1,728	—	—	4,689
of which high-trigger instruments	0	7,528	0	—	—	7,528
Other liabilities	133	3,808	203	(1,844)	—	2,300
Total liabilities at fair value	15,582	162,904	9,496	(81,866)	—	106,116

¹ Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.

² In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis (continued)

end of 2021	Level 1	Level 2	Level 3	Netting impact ¹	Assets measured at net asset value per share ²	Total
Assets (CHF million)						
Cash and due from banks	0	308	0	—	—	308
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	0	68,623	0	—	—	68,623
Securities received as collateral	13,848	1,155	14	—	—	15,017
Trading assets	54,085	146,521	4,503	(94,633)	665	111,141
of which debt securities	12,191	40,700	1,225	—	82	54,198
of which foreign governments	11,996	11,377	35	—	—	23,408
of which corporates	72	8,958	478	—	82	9,590
of which RMBS	0	17,033	424	—	—	17,457
of which equity securities	34,282	1,486	195	—	583	36,546
of which derivatives	6,224	103,781	2,187	(94,633)	—	17,559
of which interest rate products	721	47,934	624	—	—	—
of which foreign exchange products	123	20,686	53	—	—	—
of which equity/index-related products	5,348	29,808	212	—	—	—
of which other derivatives	0	196	1,034	—	—	—
of which other trading assets	1,388	554	896	—	—	2,838
Investment securities	2	1,003	0	—	—	1,005
Other investments	0	23	3,666	—	405	4,094
of which other equity investments	0	23	2,863	—	351	3,237
of which life finance instruments	0	0	789	—	—	789
Loans	0	8,709	1,534	—	—	10,243
of which commercial and industrial loans	0	2,267	717	—	—	2,984
of which financial institutions	0	3,840	465	—	—	4,305
of which government and public institutions	0	1,747	289	—	—	2,036
Other intangible assets (mortgage servicing rights)	0	57	167	—	—	224
Other assets	121	8,750	694	(381)	—	9,184
of which failed purchases	98	1,135	11	—	—	1,244
of which loans held-for-sale	0	6,818	562	—	—	7,380
Total assets at fair value	68,056	235,149	10,578	(95,014)	1,070	219,839

¹ Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.

² In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis (continued)

end of 2021	Level 1	Level 2	Level 3	Netting impact ¹	Liabilities measured at net asset value per share ²	Total
Liabilities (CHF million)						
Due to banks	0	477	0	—	—	477
Customer deposits	0	3,306	394	—	—	3,700
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	0	13,213	0	—	—	13,213
Obligation to return securities received as collateral	13,848	1,155	14	—	—	15,017
Trading liabilities	19,419	105,828	2,809	(100,522)	1	27,535
of which short positions	11,689	4,974	25	—	1	16,689
of which debt securities	2,809	4,865	3	—	—	7,677
of which foreign governments	2,667	968	0	—	—	3,635
of which corporates	113	3,839	3	—	—	3,955
of which equity securities	8,880	109	22	—	1	9,012
of which derivatives	7,730	100,854	2,542	(100,522)	—	10,604
of which interest rate products	776	44,003	26	—	—	—
of which foreign exchange products	133	22,646	57	—	—	—
of which equity/index-related products	6,812	27,919	1,787	—	—	—
of which other trading liabilities	0	0	242	—	—	242
Short-term borrowings	0	9,658	1,032	—	—	10,690
Long-term debt	0	59,046	9,676	—	—	68,722
of which structured notes over one year and up to two years	0	11,036	1,464	—	—	12,500
of which structured notes over two years	0	24,168	6,318	—	—	30,486
of which other debt instruments over two years	0	3,223	1,854	—	—	5,077
of which high-trigger instruments	0	10,702	0	—	—	10,702
Other liabilities	348	2,031	518	(305)	—	2,592
Total liabilities at fair value	33,615	194,714	14,443	(100,827)	1	141,946

1 Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.

2 In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis for level 3

2022	Balance at beginning of period	Transfers in	Transfers out	Purchases	Sales	Issuances	Settlements
Assets (CHF million)							
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	0	0	0	0	0	3	(3)
Securities received as collateral	14	0	0	0	(14)	0	0
Trading assets	4,503	1,818	(2,057)	5,563	(5,184)	967	(1,076)
of which debt securities	1,225	1,206	(1,090)	4,622	(4,185)	0	0
of which corporates	478	452	(582)	3,933	(3,342)	0	0
of which RMBS	424	312	(179)	306	(564)	0	0
of which CDO	245	201	(138)	103	(148)	0	0
of which derivatives	2,187	406	(824)	0	0	967	(918)
of which interest rate products	624	11	(182)	0	0	89	(66)
of which equity/index-related products	212	262	(416)	0	0	473	(284)
of which credit derivatives	264	115	(189)	0	0	65	(142)
of which other derivatives	1,034	9	(4)	0	0	330	(317)
of which other trading assets	896	27	(51)	827	(923)	0	(158)
Other investments	3,666	69	(13)	65	(207)	0	0
of which other equity investments	2,863	69	0	37	(17)	0	0
of which life finance instruments	789	0	0	28	(182)	0	0
Loans	1,534	566	(470)	16	(45)	63	(667)
of which commercial and industrial loans	717	163	(327)	0	(18)	4	(218)
of which financial institutions	465	141	(41)	15	(15)	58	(293)
of which government and public institutions	289	91	(39)	1	0	1	(72)
Other intangible assets (mortgage servicing rights)	167	187	0	0	0	0	0
Other assets	694	452	(289)	743	(593)	157	(417)
of which loans held-for-sale	562	379	(232)	724	(591)	157	(415)
Total assets at fair value	10,578	3,092	(2,829)	6,387	(6,043)	1,190	(2,163)
Liabilities (CHF million)							
Customer deposits	394	0	0	0	0	0	(18)
Obligation to return securities received as collateral	14	0	0	0	(14)	0	0
Trading liabilities	2,809	1,784	(1,381)	33	(106)	844	(2,066)
of which derivatives	2,542	1,651	(1,353)	0	0	844	(2,066)
of which equity/index-related products	1,787	615	(1,027)	0	0	476	(520)
of which credit derivatives	374	991	(201)	0	0	176	(1,329)
of which other derivatives	298	0	(5)	0	0	143	(174)
Short-term borrowings	1,032	204	(684)	0	0	785	(815)
Long-term debt	9,676	3,088	(6,609)	0	0	7,730	(5,575)
of which structured notes over two years	6,318	2,502	(4,930)	0	0	6,589	(4,729)
of which other debt instruments over two years	1,854	0	0	0	0	166	(279)
Other liabilities	518	126	(305)	22	(89)	110	(136)
Total liabilities at fair value	14,443	5,202	(8,979)	55	(209)	9,469	(8,610)
Net assets/(liabilities) at fair value	(3,865)	(2,110)	6,150	6,332	(5,834)	(8,279)	6,447

1 Changes in unrealized gains/(losses) on total assets at fair value and changes in unrealized (gains)/losses on total liabilities at fair value relating to assets and liabilities held at period end are included in net revenues or accumulated other comprehensive income. As of 2022, changes in net unrealized gains/(losses) of CHF (472) million and CHF (50) million were recorded in trading revenues and other revenues, respectively, and changes in unrealized (gains)/losses of CHF 413 million were recorded in gains/(losses) on liabilities relating to credit risk in accumulated other comprehensive income/(loss).

Trading revenues		Other revenues		Accumulated other comprehensive income		Foreign currency translation impact	Balance at end of period	Changes in unrealized gains/losses ¹
On transfers out	On all other	On transfers out	On all other	On transfers out	On all other			
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
83	(847)	0	(9)	0	0	67	3,828	(193)
(106)	(499)	0	(9)	0	0	47	1,211	215
(97)	(464)	0	0	0	0	35	413	226
3	133	0	0	0	0	9	444	4
(5)	(39)	0	(9)	0	0	6	216	(6)
144	(301)	0	0	0	0	0	1,661	(328)
(5)	229	0	0	0	0	(29)	671	166
106	(55)	0	0	0	0	(3)	295	2
31	(19)	0	0	0	0	5	130	1
4	(537)	0	0	0	0	29	548	(489)
6	94	0	0	0	0	16	734	(123)
0	(253)	0	(57)	0	0	42	3,312	(95)
0	(190)	0	(65)	0	0	27	2,724	(50)
0	(63)	0	0	0	0	15	587	(45)
39	(46)	0	(6)	0	0	56	1,040	(92)
12	(50)	0	(6)	0	0	23	300	(74)
16	29	0	0	0	0	23	398	9
1	(24)	0	0	0	0	6	254	(25)
0	4	0	0	0	0	1	359	4
46	(49)	0	3	0	0	26	773	(31)
15	26	0	0	0	0	23	648	(15)
168	(1,191)	0	(69)	0	0	192	9,312	(407)
0	(49)	0	0	0	(57)	(18)	252	(120)
0	0	0	0	0	0	0	0	0
52	(165)	0	0	0	0	77	1,881	224
51	(98)	0	0	0	0	69	1,640	216
(5)	(273)	0	0	0	0	30	1,083	(38)
26	172	0	0	0	0	33	242	152
3	(79)	0	0	0	0	10	196	(5)
(75)	(8)	0	0	0	0	14	453	9
(557)	(785)	0	0	(51)	(350)	140	6,707	(422)
(418)	(737)	0	0	(49)	(344)	105	4,307	(487)
0	(38)	0	0	0	0	25	1,728	83
82	(90)	(46)	1	0	0	10	203	11
(498)	(1,097)	(46)	1	(51)	(407)	223	9,496	(298)
666	(94)	46	(70)	51	407	(31)	(184)	(109)

Assets and liabilities measured at fair value on a recurring basis for level 3 (continued)

2021	Balance at beginning of period	Transfers in	Transfers out	Purchases	Sales	Issuances	Settlements
Assets (CHF million)							
Securities received as collateral	101	0	0	73	(164)	0	0
Trading assets	7,535	1,345	(3,413)	4,867	(5,685)	874	(1,629)
of which debt securities	2,253	878	(1,701)	3,668	(4,141)	0	0
of which corporates	1,270	471	(747)	2,753	(3,483)	0	0
of which RMBS	557	158	(615)	654	(385)	0	0
of which derivatives	3,911	314	(1,551)	0	0	874	(1,514)
of which interest rate products	733	58	(222)	0	0	175	(79)
of which other derivatives	1,079	1	0	0	0	311	(325)
of which other trading assets	1,247	31	(90)	1,035	(1,371)	0	(115)
Other investments	3,054	99	(758)	1,517	(663)	0	0
of which other equity investments	2,132	65	(757)	1,482	(448)	0	0
of which life finance instruments	920	0	0	33	(188)	0	0
Loans	3,669	257	(1,315)	362	(194)	207	(1,620)
of which commercial and industrial loans	1,347	213	(364)	10	(133)	162	(643)
of which financial institutions	1,082	43	(340)	0	(42)	34	(409)
of which government and public institutions	729	1	(298)	0	(1)	(1)	(68)
Other intangible assets (mortgage servicing rights)	180	0	0	22	0	0	0
Other assets	1,825	370	(902)	3,447	(3,269)	120	(924)
of which loans held-for-sale	1,576	360	(855)	3,394	(3,222)	120	(921)
Total assets at fair value	16,364	2,071	(6,388)	10,288	(9,975)	1,201	(4,173)
Liabilities (CHF million)							
Customer deposits	448	0	0	0	0	0	0
Obligation to return securities received as collateral	101	0	0	73	(164)	0	0
Trading liabilities	4,246	1,007	(2,703)	45	(56)	1,135	(1,498)
of which derivatives	3,937	838	(2,553)	0	0	1,135	(1,498)
of which equity/index-related products	2,010	562	(1,498)	0	0	581	(644)
Short-term borrowings	701	359	(550)	0	0	1,766	(1,363)
Long-term debt	7,268	4,767	(6,677)	0	0	11,323	(6,863)
of which structured notes over one year and up to two years	1,133	1,802	(1,979)	0	0	2,052	(1,663)
of which structured notes over two years	5,526	2,965	(4,314)	0	0	7,540	(5,038)
of which other debt instruments over two years	165	0	(2)	0	0	1,616	(36)
Other liabilities	1,271	21	(556)	51	(89)	116	(501)
Total liabilities at fair value	14,035	6,154	(10,486)	169	(309)	14,340	(10,225)
Net assets/(liabilities) at fair value	2,329	(4,083)	4,098	10,119	(9,666)	(13,139)	6,052

1 Changes in unrealized gains/(losses) on total assets at fair value and changes in unrealized (gains)/losses on total liabilities at fair value relating to assets and liabilities held at period end are included in net revenues or accumulated other comprehensive income. As of 2021, changes in net unrealized gains/(losses) of CHF (841) million and CHF 82 million were recorded in trading revenues and other revenues, respectively, and changes in unrealized (gains)/losses of CHF 3 million were recorded in gains/(losses) on liabilities relating to credit risk in accumulated other comprehensive income/(loss).

Trading revenues		Other revenues		Accumulated other comprehensive income		Foreign currency translation impact	Balance at end of period	Changes in unrealized gains/losses ¹
On transfers out	On all other	On transfers out	On all other	On transfers out	On all other			
0	0	0	0	0	0	4	14	0
(133)	509	0	(1)	0	0	234	4,503	52
(331)	509	0	(1)	0	0	91	1,225	103
(321)	472	0	0	0	0	63	478	154
(25)	59	0	0	0	0	21	424	(15)
79	(16)	0	0	0	0	90	2,187	116
(8)	(14)	0	0	0	0	(19)	624	141
0	(73)	0	0	0	0	41	1,034	(81)
62	49	0	0	0	0	48	896	(96)
0	86	0	267	0	0	64	3,666	120
0	96	0	263	0	0	30	2,863	80
0	(10)	0	0	0	0	34	789	39
7	55	0	(3)	0	0	109	1,534	(59)
19	74	0	(3)	0	0	35	717	6
1	70	0	0	0	0	26	465	27
(12)	(88)	0	0	0	0	27	289	(87)
0	0	0	(42)	0	0	7	167	(42)
14	(41)	0	0	0	0	54	694	(137)
25	41	0	0	0	0	44	562	(104)
(112)	609	0	221	0	0	472	10,578	(66)
0	(18)	0	0	0	(14)	(22)	394	(29)
0	0	0	0	0	0	4	14	0
340	138	0	0	0	0	155	2,809	653
340	201	0	0	0	0	142	2,542	644
353	352	0	0	0	0	71	1,787	712
(35)	128	0	0	0	0	26	1,032	72
(38)	(316)	0	(5)	0	(50)	267	9,676	(32)
(26)	104	0	0	(1)	(1)	43	1,464	(2)
11	(528)	0	0	1	(47)	202	6,318	(312)
0	105	0	0	0	0	6	1,854	306
10	(28)	113	66	0	0	44	518	26
277	(96)	113	61	0	(64)	474	14,443	690
(389)	705	(113)	160	0	64	(2)	(3,865)	(756)

Both observable and unobservable inputs may be used to determine the fair value of positions that have been classified within level 3. As a result, the unrealized gains and losses for assets and liabilities within level 3 presented in the table above may include changes in fair value that were attributable to both observable and unobservable inputs.

The Group employs various economic hedging techniques in order to manage risks, including risks in level 3 positions. Such techniques may include the purchase or sale of financial instruments that are classified in levels 1 and/or 2. The realized and unrealized gains and losses for assets and liabilities in level 3 presented in the table above do not reflect the related realized or unrealized gains and losses arising on economic hedging instruments classified in levels 1 and/or 2.

The Group typically uses nonfinancial assets measured at fair value on a recurring or nonrecurring basis in a manner that reflects their highest and best use.

Transfers in and out of level 3

Transfers into level 3 assets during 2022 were CHF 3,092 million, primarily from trading assets, loans and loans held-for-sale. The transfers were primarily in the GTS, securitized products and APAC Financing Group businesses due to limited observability of pricing data and reduced pricing information from external providers. Transfers out of level 3 assets during 2022 were CHF 2,829 million, primarily in trading assets, loans and loans held-for-sale. The transfers out of level 3 assets were primarily in the GTS and securitized products businesses due to improved observability of pricing data and increased availability of pricing information from external providers.

Transfers into level 3 liabilities during 2022 were CHF 5,202 million, primarily from long-term debt and trading liabilities. These transfers were primarily in structured notes over two years and derivatives arising from a change in the observability of pricing data. Transfers out of level 3 liabilities of CHF 8,979 million in 2022 were primarily from long-term debt and trading liabilities. These transfers were primarily in structured notes over two years and derivatives arising from a change in the observability of pricing data.

Transfers into level 3 assets during 2021 were CHF 2,071 million, primarily from trading assets and loans held-for-sale. The transfers were primarily in the GTS, credit and securitized products businesses due to limited observability of pricing data and

reduced pricing information from external providers. Transfers out of level 3 assets during 2021 were CHF 6,388 million, primarily in trading assets, loans and loans held-for-sale. The transfers out of level 3 assets were primarily in the GTS, securitized products and Asia Pacific strategic products businesses due to improved observability of pricing data and increased availability of pricing information from external providers.

Uncertainty of fair value measurements at the reporting date from the use of significant unobservable inputs

For level 3 assets with a significant unobservable input of buy-back probability, contingent probability, dividend yield, funding spread, mortality rate, price, recovery rate, UK mortality, unadjusted NAV and volatility, in general, an increase in the significant unobservable input would increase the fair value. For level 3 assets with a significant unobservable input of correlation, credit spread, default rate, discount rate, fund gap risk, gap risk, market implied life expectancy (for life settlement and premium finance instruments), mean reversion, prepayment rate and tax swap rate, in general, an increase in the significant unobservable input would decrease the fair value.

For level 3 liabilities, in general, an increase in the related significant unobservable inputs would have the inverse impact on fair value. An increase in the significant unobservable input contingent probability, credit spread, fund gap risk, gap risk, market implied life expectancy (for life settlement and premium finance instruments), mortality rate and price would increase the fair value. An increase in the significant unobservable input buyback probability, correlation, discount rate, dividend yield, mean reversion, prepayment rate, recovery rate, UK mortality, unadjusted NAV and volatility would decrease the fair value.

Interrelationships between significant unobservable inputs

Except as noted above, there are no material interrelationships between the significant unobservable inputs for the financial instruments. As the significant unobservable inputs move independently, generally an increase or decrease in one significant unobservable input will have no impact on the other significant unobservable inputs.

Quantitative disclosures of valuation techniques

The following tables provide the representative range of minimum and maximum values and the associated weighted averages of each significant unobservable input for level 3 assets and liabilities by the related valuation technique most significant to the related financial instrument.

Quantitative information about level 3 assets measured at fair value on a recurring basis

end of 2022	Fair value	Valuation technique	Unobservable input	Minimum value	Maximum value	Weighted average ¹
CHF million, except where indicated						
Trading assets	3,828					
of which debt securities	1,211					
of which corporates	413					
of which	118	Discounted cash flow	Credit spread, in bp	10	7,589	620
			Price, in%	0	101	53
of which	75	Market comparable	Price, in%	0	101	51
			Price, in actuals	1	218	29
of which	216	Price	Price, in%	30	126	87
			Price, in actuals	0	11,640	2,203
of which RMBS	444	Discounted cash flow	Discount rate, in%	3	33	12
of which derivatives	1,661					
of which interest rate products	671					
of which	1	Discounted cash flow	Volatility, in%	95	110	103
of which	662	Option model	Contingent probability, in %	95	95	95
			Correlation, in%	(4)	100	73
			Mean reversion, in% ²	25	25	25
			Prepayment rate, in%	14	19	17
			Volatility, in%	(3)	1	(1)
of which other derivatives			Market implied life expectancy, in years	2	13	6
	548	Discounted cash flow	UK Mortality, in%	74	139	99
of which other trading assets	734					
of which	458	Discounted cash flow	Market implied life expectancy, in years	3	13	6
			Tax swap rate, in%	30	30	30
of which	251	Market comparable	Price, in%	0	109	27
of which	25	Option model	Mortality rate, in%	0	70	6
Other investments	3,312					
of which other equity investments	2,724					
of which	2,443	Market comparable	Price, in actuals	0	275	109
of which	174	Price	Price, in actuals	1	15	13
of which	46	Discounted cash flow	Discount rate, in%	8	8	8
of which life finance instruments	587	Discounted cash flow	Market implied life expectancy, in years	2	15	6
Loans	1,040					
of which commercial and industrial loans	300					
of which	124	Discounted cash flow	Credit spread, in bp	280	2,596	756
of which	22	Market comparable	Price, in%	74	74	74
of which	153	Price	Price, in%	6	100	53
of which financial institutions	398					
of which	282	Discounted cash flow	Credit spread, in bp	242	1,278	497
of which	115	Price	Price, in%	22	72	66
of which government and public institutions	254					
of which	158	Discounted cash flow	Credit spread, in bp	534	1,339	680
of which	96	Price	Price, in%	35	42	36
Other assets	773					
of which loans held-for-sale	648					
of which	258	Discounted cash flow	Credit spread, in bp	299	594	368
			Recovery rate, in%	55	55	55
of which	363	Market comparable	Price, in%	0	145	78
of which	14	Price	Price, in%	0	79	59

¹ Weighted average is calculated based on the fair value of the instruments.

² Management's best estimate of the speed at which interest rates will revert to the long-term average.

Quantitative information about level 3 assets measured at fair value on a recurring basis (continued)

end of 2021	Fair value	Valuation technique	Unobservable input	Minimum value	Maximum value	Weighted average ¹
CHF million, except where indicated						
Trading assets	4,503					
of which debt securities	1,225					
of which corporates	478					
of which	124	Discounted cash flow	Credit spread, in bp	50	1,290	701
			Price, in%	0	100	47
			Recovery rate, in %	39	39	1
of which	107	Market comparable	Price, in%	0	110	63
of which	55	Option model	Correlation, in%	(50)	100	68
			Fund gap risk, in % ²	0	3	1
			Volatility, in%	0	163	17
of which	69	Price	Price, in%	35	120	92
of which	145	Vendor price	Price, in actuals	0	123	79
of which RMBS	424	Discounted cash flow	Discount rate, in%	1	29	13
of which derivatives	2,187					
of which interest rate products	624					
of which	6	Discounted cash flow	Funding spread, in bp	109	166	127
			Volatility, in%	0	100	97
of which	612	Option model	Correlation, in%	(4)	100	9
			Mean reversion, in % ³	(55)	(8)	0
			Prepayment rate, in %	0	21	17
			Volatility, in%	(3)	1	0
of which other derivatives			Market implied life expectancy, in years			
	1,034	Discounted cash flow	expectancy, in years	2	14	6
			Mortality rate, in%	73	138	99
of which other trading assets	896					
of which	611	Discounted cash flow	Market implied life expectancy, in years	3	14	7
			Tax swap rate, in%	30	30	30
of which	189	Market comparable	Price, in%	0	130	34
of which	93	Option model	Mortality rate, in%	0	70	6
Other investments	3,666					
of which other equity investments	2,863					
of which	929	Adjusted NAV	Price, in actuals	287	287	287
of which	1,919	Price	Price, in actuals	1	1,292	54
of which life finance instruments			Market implied life expectancy, in years			
	789	Discounted cash flow	expectancy, in years	2	16	6
Loans	1,534					
of which commercial and industrial loans	717					
of which	474	Discounted cash flow	Credit spread, in bp	184	3,325	809
of which	6	Market comparable	Price, in%	19	19	19
of which	209	Price	Price, in%	0	100	50
of which financial institutions	465					
of which	327	Discounted cash flow	Credit spread, in bp	0	3,212	921
of which	158	Price	Price, in%	14	76	31
Other assets	694					
of which loans held-for-sale	562					
of which	281	Discounted cash flow	Credit spread, in bp	0	563	314
of which	254	Market comparable	Price, in%	0	139	67
of which	16	Price	Price, in%	0	75	54

¹ Weighted average is calculated based on the fair value of the instruments.

² Risk of unexpected large declines in the underlying values occurring between collateral settlement dates.

³ Management's best estimate of the speed at which interest rates will revert to the long-term average.

Quantitative information about level 3 liabilities measured at fair value on a recurring basis

end of 2022	Fair value	Valuation technique	Unobservable input	Minimum value	Maximum value	Weighted average ¹
CHF million, except where indicated						
Trading liabilities	1,881					
of which derivatives	1,640					
of which equity/index-related products	1,083					
of which	1,040	Option model	Correlation, in %	(50)	100	71
			Dividend yield, in %	0	13	5
			Fund gap risk, in % ²	0	2	0
			Volatility, in%	5	148	29
of which	31	Price	Price, in actuals	0	1,197	34
of which credit derivatives	242					
of which	162	Discounted cash flow	Credit spread, in bp	3	2,149	341
			Discount rate, in%	6	17	11
			Recovery rate, in %	10	100	69
of which	9	Market comparable	Price, in%	71	101	86
of which	10	Option model	Credit spread, in bp	47	1,528	194
of which	3	Price	Price, in%	74	102	101
of which other derivatives	196	Discounted cash flow	Market implied life expectancy, in years	2	18	6
			UK Mortality, in%	74	103	97
Short-term borrowings	453					
of which	8	Discounted cash flow	Credit spread, in bp	142	276	267
of which	338	Option model	Correlation, in%	(50)	100	75
			Buyback probability, in % ³	50	100	76
			Volatility, in%	5	148	27
of which	94	Price	Price, in%	20	20	20
			Price, in actuals	1,296	1,296	1,296
Long-term debt	6,707					
of which structured notes over two years	4,307					
of which	508	Discounted cash flow	Credit spread, in bp	10	430	142
of which	3,793	Option model	Buyback probability, in % ³	50	100	76
			Correlation, in%	(50)	100	75
			Credit spread, in bp	27	358	326
			Fund gap risk, in% ²	0	2	0
			Mean reversion, in% ⁴	25	25	25
			Unadjusted NAV, in actuals	389	416	412
			Volatility, in%	0	148	27
of which	6	Price	Price, in%	17	17	17
of which other debt instruments over two years	1,728					
of which	358	Option model	Buyback probability, in % ³	50	100	76
			Credit spread, in bp	50	770	317
			Price, in actuals	8	8	8
of which	1,370	Price	Price, in actuals	8	8	8

1 Weighted average is calculated based on the fair value of the instruments.

2 Risk of unexpected large declines in the underlying values occurring between collateral settlement dates.

3 Estimate of probability of structured notes being put back to the Group at the option of the investor over the remaining life of the financial instruments.

4 Management's best estimate of the speed at which interest rates will revert to the long-term average.

Quantitative information about level 3 liabilities measured at fair value on a recurring basis (continued)

end of 2021	Fair value	Valuation technique	Unobservable input	Minimum value	Maximum value	Weighted average ¹
CHF million, except where indicated						
Trading liabilities	2,809					
of which derivatives	2,542					
of which equity/index-related products	1,787					
of which	1,696	Option model	Buyback probability, in % ²	50	100	72
			Correlation, in%	(50)	100	67
			Dividend yield, in%	0	7	4
			Unadjusted NAV, in actuals	101	440	358
			Volatility, in%	(1)	163	17
of which	63	Price	Price, in actuals	0	849	2
Short-term borrowings	1,032					
of which	24	Discounted cash flow	Credit spread, in bp	0	181	51
of which	905	Option model	Buyback probability, in % ²	50	100	72
			Correlation, in%	(50)	100	70
			Fund gap risk, in% ³	0	3	1
			Gap risk, in% ³	0	3	1
			Unadjusted NAV, in actuals	101	440	358
			Volatility, in%	0	163	16
of which	73	Price	Price, in%	34	120	94
Long-term debt	9,676					
of which structured notes over one year and up to two years	1,464	Option model	Buyback probability, in % ²	50	100	72
			Correlation, in%	(50)	100	69
			Fund gap risk, in% ³	0	3	1
			Gap risk, in% ³	0	3	1
			Unadjusted NAV, in actuals	101	440	358
			Volatility, in%	0	163	16
of which structured notes over two years	6,318					
of which	474	Discounted cash flow	Credit spread, in bp	8	702	72
of which	5,813	Option model	Buyback probability, in % ²	50	100	72
			Correlation, in%	(50)	100	75
			Credit spread, in bp	3	92	75
			Fund gap risk, in% ³	0	3	1
			Unadjusted NAV, in actuals	101	440	358
			Volatility, in%	0	163	19
of which	9	Price	Price, in%	26	26	26
of which other debt instruments over two years	1,854					
of which	382	Option model	Buyback probability, in% ²	50	100	72
			Correlation, in%	16	30	24
			Price, in actuals	9	9	9
of which	1,472	Price	Price, in actuals	9	35	9

1 Weighted average is calculated based on the fair value of the instruments.

2 Estimate of probability of structured notes being put back to the Group at the option of the investor over the remaining life of the financial instruments.

3 Risk of unexpected large declines in the underlying values occurring between collateral settlement dates.

Qualitative discussion of the ranges of significant unobservable inputs

The following sections provide further information about the ranges of significant unobservable inputs included in the tables above. The level of aggregation and diversity within the financial instruments disclosed in the tables above results in certain ranges of significant inputs being wide and unevenly distributed across asset and liability categories.

Basis spread

Basis spread is the primary significant unobservable input for non-callable constant maturity treasury-constant maturity swap (CMS) products and is used to determine interest rate risk as a result of differing lending and borrowing rates.

Buyback probability

Buyback probability is the probability assigned to structured notes being unwound prior to their legal maturity.

CDS scale

CDS scale is a valuation parameter which scales the referenced credit curve (base currency) to reflect a new credit curve representing the currency of the trade.

Contingent probability

Contingent probability is the primary significant unobservable input for contingent foreign exchange forward trades where the delivery or exercise and the premium payment are contingent on an event such as completion of an M&A deal or regulatory approval for a product.

Correlation

There are many different types of correlation inputs, including credit correlation, cross-asset correlation (such as equity-interest rate correlation) and same-asset correlation (such as interest rate-interest rate correlation). Correlation inputs are generally used to value hybrid and exotic instruments. Due to the complex and unique nature of these instruments, the ranges for correlation inputs can vary widely across portfolios.

Credit spread and recovery rate

For financial instruments where credit spread is the significant unobservable input, the wide range represents positions with varying levels of risk. The lower end of the credit spread range typically represents shorter-dated instruments and/or those with better perceived credit risk. The higher end of the range typically comprises longer-dated financial instruments or those referencing non-performing, distressed or impaired reference credits. Similarly, the spread between the reference credit and an index can vary significantly based on the risk of the instrument. The spread will be positive for instruments that have a higher risk of default than the index (which is based on a weighted average of its components) and negative for instruments that have a lower risk of default than the index.

Similarly, recovery rates can vary significantly depending upon the specific assets and terms of each transaction. Transactions with higher seniority or more valuable collateral will have higher recovery rates, while those transactions which are more subordinated or with less valuable collateral will have lower recovery rates.

Default rate and loss severity

For financial instruments backed by residential real estate or other assets, diversity in the portfolio is reflected in a wide range for loss severity due to varying levels of default. The lower end of the range represents high performing or government guaranteed collateral with a low PD or guaranteed timely payment of principal and interest, while the higher end of the range relates to collateral with a greater risk of default.

Discount rate

The discount rate is the rate of interest used to calculate the present value of the expected cash flows of a financial instrument. There are multiple factors that will impact the discount rate for any given financial instrument including the coupon on the instrument, the term and the underlying risk of the expected cash flows. Two instruments of similar term and expected cash flows may have significantly different discount rates because the coupons on the instruments are different.

Dividend yield

An equity forward price is a material component for measuring the fair value of a contract using forward, swap or option pricing models. The forward is generally constructed from expected future dividend payments and their timing, as well as the relevant funding rate for the given asset. Dividend yields are generally quoted as annualized percentages.

EBITDA multiple

EBITDA multiple is a primary significant unobservable input for some equity deals which are benchmarked using industry comparables. The EBITDA multiple may be preferred over other measures because it is normalized for differences between the accounting policies of similar companies.

Funding gap risk and gap risk

Gap risk is a significant unobservable input for structures that exhibit market risk to jumps in a reference asset, generally related to certain financing or principal protection trade features.

Funding spread

Funding spread is the primary significant unobservable input for special purpose vehicle funding facilities. Synthetic funding curves which represent the assets pledged as collateral are used to value structured financing transactions. The curves provide an estimate of where secured funding can be sourced and are expressed as a basis point spread in relation to the referenced benchmark rate.

Market implied life expectancy

Market implied life expectancy is the primary significant unobservable input on such products as life settlement, premium finance and SPIA, and represents the estimated mortality rate for the underlying insured for each contract. This estimate may vary depending upon multiple factors including the age and specific health characteristics of the insured.

Market price of risk

The market price of risk (MPR) is a significant unobservable input for synthetic credit products where the trades are valued using the rating-based historical default probabilities. MPR is an exponent applied to the historic default probabilities in order to bring the initial swap valuation to zero.

Mean reversion

Mean reversion is the primary significant unobservable input for callable CMS spread exotics and represents the idea that prices and returns eventually move back towards the historical average.

Mortality rate

Mortality rate is the primary significant unobservable input for pension swaps. The expected present value of future cash flow of the trades depend on the mortality of individuals in the pension fund who are grouped into categories such as gender, age, pension amount and other factors. In some cases mortality rates include a “scaler” (also referred to as a loading or multiplier) that align mortality projections with historical experience and calibrate to exit level.

Pre-IPO intrinsic option

Pre-IPO intrinsic option represents the share price of a company in advance of its listing on a public exchange. It is typically a discounted price from the IPO price.

Prepayment rate

Prepayment rates may vary from collateral pool to collateral pool, and are driven by a variety of collateral-specific factors, including the type and location of the underlying borrower, the remaining tenor of the obligation and the level and type (e.g., fixed or floating) of interest rate being paid by the borrower.

Price

Bond equivalent price is a primary significant unobservable input for multiple products. Where market prices are not available for an instrument, benchmarking may be utilized to identify comparable issues (same industry and similar product mixes) while

adjustments are considered for differences in deal terms and performance.

Settlement lag extension

For synthetic ABS CDO single tranche trades, settlement lag extension is an unobservable input that represents the delay that may occur between protection buyer calling a credit event and physically receiving the settlement cash from the swap counterparty.

Tax swap rate

The tax swap rate parameter is the interest rate applicable to tax refunds from the Italian tax office, determined annually by the Italian tax authorities and payable to the claimant when refund is made.

Terminal growth rate

The terminal growth rate is the rate at which free cash flows are expected to grow in perpetuity as part of an overall firm valuation process. The terminal growth rate typically parallels the historical inflation rate (2-3%) and is applied to the discounted cash flow model to represent mature stage company valuation.

UK Mortality

UK Mortality is marked using Day-1 Mortality improvements, Mortality Base Tables, and Mortality floor calibrated to reinsurance exit PV by set of Qx Scalars or Multipliers. UK Mortality is updated annually based on changes to ‘Multipliers’ calibrated to actual vs expected pensioner maturities observed for respective pension scheme.

Unadjusted NAV

NAV values are used to price fund units and as an input into fund derivatives. They are considered unobservable when based on NAV statements or estimates received directly from the fund, as opposed to published on a broad market platform, or with a lag to the reporting date.

Volatility and volatility skew

Volatility and its skew are both impacted by the underlying risk, term and strike price of the derivative. In the case of interest rate derivatives, volatility may vary significantly between different underlying currencies and expiration dates on the options. Similarly, in the case of equity derivatives, the volatility attributed to a structure may vary depending upon the underlying reference name on the derivative.

Investment funds measured at net asset value per share

Investments in funds held in trading assets and trading liabilities primarily include positions held in equity funds of funds as an economic hedge for structured notes and derivatives issued to clients that reference the same underlying risk and liquidity terms of the fund. A majority of these funds have limitations imposed on the amount of withdrawals from the fund during the redemption period due to illiquidity of the investments. In other instances, the withdrawal amounts may vary depending on the redemption notice period and are usually larger for the longer redemption notice periods. In addition, penalties may apply if redemption is within a certain time period from initial investment.

Investments in funds held in other investments principally involves private equity securities and, to a lesser extent, publicly traded securities and fund of funds. Several of these investments have redemption restrictions subject to the discretion of the board of directors of the fund and/or redemption is permitted without restriction, but is limited to a certain percentage of total assets or only after a certain date.

The following table pertains to investments in certain entities that calculate NAV per share or its equivalent, primarily private equity and hedge funds. These investments do not have a readily determinable fair value and are measured at fair value using NAV.

Fair value, unfunded commitments and term of redemption conditions of investment funds measured at NAV per share

end of	2022				2021			
	Non-redeemable	Redeemable	Total fair value	Unfunded commitments	Non-redeemable	Redeemable	Total fair value	Unfunded commitments
Fair value of investment funds and unfunded commitments (CHF million)								
Funds held in trading assets and trading liabilities	128	415	543	14	193	471	664	24
Private equity funds	59	0	59	48	40	0	40	42
Hedge funds	13	1	14	1	12	2	14	1
Equity method investment funds	315	13	328	114	336	15	351	124
Funds held in other investments	387	14	401	163	388	17	405	167
Total fair value of investment funds and unfunded commitments	515¹	429²	944	177	581³	488⁴	1,069	191

1 CHF 276 million of the underlying assets had known liquidation periods and for CHF 239 million, the timing of liquidation was unknown.

2 CHF 234 million was redeemable on demand with a notice period of primarily less than 30 days.

3 CHF 339 million of the underlying assets had known liquidation periods and for CHF 242 million, the timing of liquidation was unknown.

4 CHF 304 million was redeemable on demand with a notice period of primarily less than 30 days.

Assets and liabilities measured at fair value on a nonrecurring basis

Certain assets and liabilities are measured at fair value on a non-recurring basis; that is, they are not measured at fair value on an ongoing basis but are subject to fair value adjustments in certain circumstances. Nonrecurring measurements reported are as of the end of the period, unless otherwise stated. The market value

for loans held-for-sale and commitments held-for-sale is determined by benchmarking to comparable instruments.

The following table provides the fair value and the fair value hierarchy of all assets and liabilities that were held as of December 31, 2022 and 2021, for which a nonrecurring fair value measurement was recorded.

Assets and liabilities measured at fair value on a nonrecurring basis

<u>end of 2022</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Assets (CHF million)				
Other investments	0	259	106	365
of which equity method investments	0	0	78	78
of which equity securities (without a readily determinable fair value)	0	259	28	287
Net loans	0	14	1	15
Other assets	0	39	44	83
of which loans held-for-sale	0	39	32	71
of which real estate held-for-sale	0	0	12	12
Total assets recorded at fair value on a nonrecurring basis	0	312	151	463
Liabilities (CHF million)				
Other liabilities	0	2	21	23
of which commitments held-for-sale	0	2	21	23
Total liabilities recorded at fair value on a nonrecurring basis	0	2	21	23
<u>end of 2021</u>				
Assets (CHF million)				
Other investments	0	0	152	152
of which equity method investments	0	0	118	118
of which equity securities (without a readily determinable fair value)	0	0	21	21
Net loans	0	12	5	17
Other assets	0	29	110	139
of which loans held-for-sale	0	28	45	73
of which premises, equipment and right-of-use assets	0	1	60	61
Total assets recorded at fair value on a nonrecurring basis	0	41	267	308
Liabilities (CHF million)				
Other liabilities	0	0	21	21
of which commitments held-for-sale	0	0	21	21
Total liabilities recorded at fair value on a nonrecurring basis	0	0	21	21

The following table provides the representative range of minimum and maximum values and the associated weighted averages of each significant unobservable input for level 3 assets and liabilities by the related valuation technique most significant to the

related financial instrument that were held as of December 31, 2022 and 2021, for which a nonrecurring fair value measurement was recorded.

Quantitative information about level 3 assets and liabilities measured at fair value on a nonrecurring basis

end of 2022	Fair value	Valuation technique	Unobservable input	Minimum value	Maximum value	Weighted average ¹
Assets (CHF million, except where indicated)						
Other investments	106					
of which equity method investments	78	Discounted cash flow	Discount rate, in%	8	18	15
of which equity securities (without a readily determinable fair value)	28					
of which	13	Discounted cash flow	Discount rate, in%	12	16	14
of which	13	Market comparable	Price, in actuals	3	6,181	1,310
Other assets	44					
of which loans held-for-sale	32	Market comparable	Price, in%	90	90	90
of which real estate held-for-sale	12	Market comparable	Price, in actuals	0	144	55
Liabilities (CHF million, except where indicated)						
Other liabilities	21					
of which commitments held-for-sale	21	Market comparable	Price, in%	87	96	90
end of 2021						
Assets (CHF million, except where indicated)						
Other investments	152					
of which equity method investments	118	Discounted cash flow	Discount rate, in%	8	13	13
of which equity securities (without a readily determinable fair value)	21					
of which	16	Discounted cash flow	Discount rate, in%	12	16	14
of which	5	Market comparable	Price per share, in actuals	5	6,003	2,441
Other assets	110					
of which loans held-for-sale	45	Market comparable	Price, in%	80	100	88
of which premises, equipment and right-of-use assets	60	Market comparable	Price, in actuals	60	60	60
Liabilities (CHF million, except where indicated)						
Other liabilities	21					
of which commitments held-for-sale	21	Market comparable	Price, in%	80	97	83

1 Weighted average is calculated based on the fair value of the instruments.

Fair value option

The Group has availed itself of the simplification in accounting offered under the fair value option. This has been accomplished generally by electing the fair value option, both at initial adoption and for subsequent transactions, on items impacted by the hedge accounting requirements of US GAAP. For instruments for which hedge accounting could not be achieved but for which the Group is economically hedged, the Group has generally elected the fair value option. Where the Group manages an activity on a fair value basis but previously has been unable to achieve fair value accounting, the Group has generally utilized the fair value option to align its financial accounting to its risk management reporting.

The Group elected fair value for certain of its financial statement captions as follows:

Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions

The Group has elected to account for structured resale agreements and most matched book resale agreements at fair value. These activities are managed on a fair value basis; thus, fair value accounting is deemed more appropriate for reporting purposes. The Group did not elect the fair value option for firm financing resale agreements as these agreements are generally overnight agreements which approximate fair value, but which are not managed on a fair value basis.

Other investments

The Group has elected to account for certain equity method investments at fair value. These activities are managed on a fair value basis; thus, fair value accounting is deemed more appropriate for reporting purposes.

Loans

The Group has elected to account for substantially all commercial loans and loan commitments from the investment banking businesses and certain emerging market loans from the investment banking businesses at fair value. These activities are managed on a fair value basis and fair value accounting was deemed more appropriate for reporting purposes. Additionally, recognition on a fair value basis eliminates the mismatch that existed due to the economic hedging the Group employs to manage these loans. Certain similar loans, such as project finance, lease finance, cash collateralized and some bridge loans, which were eligible for the fair value option, were not elected due to the lack of currently available infrastructure to fair value such loans and/or the inability to economically hedge such loans. Additionally, the Group elected not to account for loans granted by its private, corporate and institutional banking businesses at fair value, such as domestic consumer lending, mortgages and corporate loans, as these loans are not managed on a fair value basis.

Other assets

The Group elected the fair value option for loans held-for-sale, due to the short period over which such loans are held and the intention to sell such loans in the near term. Other assets also include assets of VIEs and mortgage securitizations which do not meet the criteria for sale treatment under US GAAP. The Group did elect the fair value option for these types of transactions.

Due to banks and customer deposits

The Group elected the fair value option for certain time deposits associated with its emerging markets activities. The Group's customer deposits include fund-linked deposits. The Group elected the fair value option for these fund-linked deposits. Fund-linked products are managed on a fair value basis and fair value accounting was deemed more appropriate for reporting purposes.

Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions

The Group has elected to account for structured repurchase agreements and most matched book repurchase agreements at fair value. These activities are managed on a fair value basis and fair value accounting was deemed more appropriate for reporting purposes. The Group did not elect the fair value option for

firm financing repurchase agreements as these agreements are generally overnight agreements which approximate fair value, but which are not managed on a fair value basis.

Short-term borrowings

The Group's short-term borrowings include hybrid debt instruments with embedded derivative features. Some of these embedded derivative features create bifurcable debt instruments. The Group elected the fair value option for some of these instruments as of January 1, 2006, in accordance with the provisions of US GAAP. New bifurcable debt instruments which were entered into in 2006 are carried at fair value. Some hybrid debt instruments do not result in bifurcable debt instruments. US GAAP permits the Group to elect fair value accounting for non-bifurcable hybrid debt instruments. With the exception of certain bifurcable hybrid debt instruments which the Group did not elect to account for at fair value, the Group has elected to account for all hybrid debt instruments held as of January 1, 2007, and hybrid debt instruments originated after January 1, 2007, at fair value. These activities are managed on a fair value basis and fair value accounting was deemed appropriate for reporting purposes. There are two main populations of similar instruments for which fair value accounting was not elected. The first relates to the lending business transacted by the Group's private, corporate and institutional banking businesses, which includes structured deposits and similar investment products. These are managed on a bifurcated or accrual basis and fair value accounting was not considered appropriate. The second is where the instruments were or will be maturing in the near term and their fair value will be realized at that time.

Long-term debt

The Group's long-term debt includes hybrid debt instruments with embedded derivative features as described above in short-term borrowings. The Group's long-term debt also includes debt issuances managed by the Treasury department that do not contain derivative features (vanilla debt). The Group actively manages the interest rate risk on these instruments with derivatives. In particular, fixed-rate debt is hedged with receive-fixed, pay-floating interest rate swaps. The Group elected to fair value fixed-rate debt upon implementation of the fair value option on January 1, 2007, with changes in fair value recognized as a component of trading revenues. The Group did not elect to apply the fair value option to fixed-rate debt issued by the Group since January 1, 2008, but instead applies hedge accounting.

Other liabilities

Other liabilities include liabilities of VIEs and mortgage securitizations that do not meet the criteria for sale treatment under US GAAP. The Group elected the fair value option for these types of transactions.

Difference between the aggregate fair value and unpaid principal balances of fair value option-elected financial instruments

end of	2022			2021		
	Aggregate fair value	Aggregate unpaid principal	Difference	Aggregate fair value	Aggregate unpaid principal	Difference
Financial instruments (CHF million)						
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	40,793	40,665	128	68,623	68,565	58
Loans	7,358	8,241	(883)	10,243	11,035	(792)
Other assets ¹	8,544	10,937	(2,393)	8,624	10,777	(2,153)
Due to banks and customer deposits	(458)	(562)	104	(493)	(442)	(51)
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(14,042)	(13,933)	(109)	(13,213)	(13,212)	(1)
Short-term borrowings	(6,783)	(6,892)	109	(10,690)	(10,996)	306
Long-term debt ²	(58,721)	(72,788)	14,067	(68,722)	(71,833)	3,111
Other liabilities	(888)	(1,043)	155	(1,170)	(1,403)	233
Non-accrual loans ^{3,4}	733	2,213	(1,480)	843	2,657	(1,814)

1 Primarily loans held-for-sale.

2 Long-term debt includes both principal-protected and non-principal protected instruments. For non-principal-protected instruments, the original notional amount has been reported in the aggregate unpaid principal.

3 Generally, a loan is deemed non-accrual when the contractual payments of principal and/or interest are more than 90 days past due.

4 Included in loans or other assets.

Gains and losses on financial instruments

in	2022	2021	2020
	Net gains/ (losses)	Net gains/ (losses)	Net gains/ (losses)
Financial instruments (CHF million)			
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	1,450 ¹	638 ¹	1,198 ¹
Other investments	(51) ²	304 ²	397 ²
of which related to credit risk	(3)	2	1
Loans	163 ¹	443 ¹	510 ¹
of which related to credit risk	(239)	(13)	(181)
Other assets	246 ¹	519 ¹	489 ¹
of which related to credit risk	(202)	133	(106)
Due to banks and customer deposits	(44) ³	(22) ³	(10) ³
of which related to credit risk	(1)	0	0
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(156) ¹	(43) ¹	(58) ¹
Short-term borrowings	1,916 ³	98 ³	(687) ³
of which related to credit risk	1	2	0
Long-term debt	6,935 ³	(3,005) ³	(2,294) ³
of which related to credit risk	3	0	11
Other liabilities	54 ²	171 ³	(20) ³
of which related to credit risk	(164)	71	(15)

1 Primarily recognized in net interest income.

2 Primarily recognized in other revenues.

3 Primarily recognized in trading revenues.

The impact of credit risk on assets presented in the table above has been calculated as the component of the total change in fair value, excluding the impact of changes in base or risk-free interest rates. The impact of changes in own credit risk on liabilities presented in the table above has been calculated as the difference between the fair values of those instruments as of the reporting date and the theoretical fair values of those instruments calculated by using the yield curve prevailing at the end of the reporting period, adjusted up or down for changes in the Group's own credit spreads from the transition date to the reporting date.

Interest income and expense, which are calculated based on contractual rates specified in the transactions, are recorded in the consolidated statements of operations depending on the nature of the instrument and its related market convention. When interest is included as a component of the change in the instrument's fair value, it is included in trading revenues. Otherwise, it is included

in interest and dividend income or interest expense. Interest and dividend income is recognized separately from trading revenues.

Gains and losses attributable to changes in instrument-specific credit risk on fair value option elected liabilities

The following table provides additional information regarding the gains and losses attributable to changes in instrument-specific credit risk on fair value option elected liabilities, which have been recorded in AOCI. The table includes both the amount of change during the period and the cumulative amount that were attributable to the changes in instrument-specific credit risk. In addition, the table includes the gains and losses related to instrument-specific credit risk, which were previously recorded in AOCI but have been transferred to net income during the period.

Gains/(losses) attributable to changes in instrument-specific credit risk

in	Gains/(losses) recorded into AOCI ¹			Gains/(losses) recorded in AOCI transferred to net income ¹	
	2022	Cumulative	2021	2022	2021
Financial instruments (CHF million)					
Customer deposits	57	0	14	0	0
Short-term borrowings	19	(25)	19	0	0
Long-term debt	6,934	4,751	266	(31)	103
of which treasury debt over two years	3,670	2,742	(129)	0	0
of which structured notes over two years	2,666	1,501	359	(31)	103
Total	7,010	4,726	299	(31)	103

¹ Amounts are reflected gross of tax.

Financial instruments not carried at fair value

The following table provides the carrying value and fair value of financial instruments, which are not carried at fair value in the

consolidated balance sheet. The disclosure excludes all non-financial instruments such as lease transactions, real estate, premises and equipment, equity method investments and pension and benefit obligations.

Carrying value and fair value of financial instruments not carried at fair value

end of	Carrying value	Fair value			Total
		Level 1	Level 2	Level 3	
2022 (CHF million)					
Financial assets					
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	18,005	0	18,005	0	18,005
Investment securities	921	911	0	0	911
Loans	252,886	0	237,101	12,743	249,844
Other financial assets ¹	92,215	68,836	20,311	2,928	92,075
Financial liabilities					
Due to banks and customer deposits	242,188	148,770	93,326	0	242,096
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	6,238	0	6,238	0	6,238
Short-term borrowings	5,631	0	5,629	0	5,629
Long-term debt	98,515	0	83,381	9,834	93,215
Other financial liabilities ²	8,411	0	7,866	527	8,393
2021 (CHF million)					
Financial assets					
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	35,283	0	35,283	0	35,283
Loans	277,766	0	272,527	13,722	286,249
Other financial assets ¹	180,024	164,097	15,469	503	180,069
Financial liabilities					
Due to banks and customer deposits	407,607	243,324	164,289	0	407,613
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	22,061	0	22,061	0	22,061
Short-term borrowings	8,703	0	8,702	0	8,702
Long-term debt	98,174	0	98,841	1,716	100,557
Other financial liabilities ²	12,460	1	12,021	443	12,465

¹ Primarily includes cash and due from banks, interest-bearing deposits with banks, loans held-for-sale, cash collateral on derivative instruments, interest and fee receivables and non-marketable equity securities.

² Primarily includes cash collateral on derivative instruments and interest and fee payables.

37 Assets pledged and collateral

Assets pledged

The Group pledges assets mainly for repurchase agreements and other securities financing. Certain pledged assets may be encumbered, meaning they have the right to be sold or repledged. The encumbered assets are parenthetically disclosed on the consolidated balance sheet.

Assets pledged

end of	2022	2021
CHF million		
Total assets pledged or assigned as collateral	63,111	88,721
of which encumbered	25,445	39,105

Collateral

The Group receives cash and securities in connection with resale agreements, securities borrowing and loans, derivative transactions and margined broker loans. A significant portion of the collateral and securities received by the Group was sold or repledged in connection with repurchase agreements, securities sold not yet

purchased, securities borrowings and loans, pledges to clearing organizations, segregation requirements under securities laws and regulations, derivative transactions and bank loans.

Collateral

end of	2022	2021
CHF million		
Fair value of collateral received with the right to sell or repledge	150,198	289,898
of which sold or repledged	75,819	144,747

Other information

end of	2022	2021
CHF million		
Swiss National Bank required minimum liquidity reserves	2,258	2,246
Other restricted cash, securities and receivables 1	1,247	3,868

- 1** Includes cash, securities and receivables recorded on the Group's consolidated balance sheets and restricted under Swiss or foreign regulations for financial institutions; excludes restricted cash, securities and receivables held on behalf of clients which are not recorded on the Group's consolidated balance sheet.

38 Capital adequacy

The Group is subject to the Basel framework, as implemented in Switzerland, as well as Swiss legislation and regulations for systemically important banks, which include capital, liquidity, leverage and large exposure requirements and rules for emergency plans designed to maintain systemically relevant functions in the event of threatened insolvency. The legislation implementing the Basel framework in Switzerland in respect of capital requirements for systemically important banks, including Credit Suisse, goes beyond the Basel minimum standards for systemically important banks. The Group, which is subject to regulation by FINMA, has based its capital adequacy calculations on US GAAP financial statements, as permitted by FINMA Circular 2013/1.

Under the Capital Adequacy Ordinance, Swiss banks classified as systemically important banks operating internationally, such as Credit Suisse, are subject to two different minimum requirements for loss-absorbing capacity: such banks must hold sufficient capital that absorbs losses to ensure continuity of service (going concern requirement), and they must issue sufficient debt instruments to fund an orderly resolution without recourse to public resources (gone concern requirement). Going concern capital and gone concern capital together form the Group's total loss-absorbing capacity (TLAC). The going concern and gone

concern requirements are generally aligned with the Financial Stability Board's total loss-absorbing capacity standard. Under the Capital Adequacy Ordinance's grandfathering provisions, additional tier 1 capital instruments with a low trigger qualify as going concern capital until their first call date. Additionally, there are FINMA decrees that apply to Credit Suisse as a systemically important bank operating internationally, including capital adequacy requirements as well as liquidity and risk diversification requirements. Banks that do not maintain the minimum requirements may be limited in their ability to pay dividends and make discretionary bonus payments and other earnings distributions.

The Group's balance sheet positions and off-balance sheet exposures translate into risk-weighted assets, which are categorized as credit, market and operational risk-weighted assets. When assessing risk-weighted assets, it is not the nominal size, but rather the nature (including risk mitigation such as collateral or hedges) of the balance sheet positions or off-balance sheet exposures that determines the risk-weighted assets.

Leverage exposure consists of period-end balance sheet assets and prescribed regulatory adjustments, such as derivative financial instruments, securities financing transactions and off-balance sheet exposures.

Capital ratios measure the Group's capital components against risk-weighted assets and leverage ratios measure them against the end-of-period leverage exposure.

As of December 31, 2022 and 2021, the Group's capital position exceeded its capital requirements under the regulatory provisions outlined under Swiss Requirements.

Broker-dealer operations

Certain of the Group's broker-dealer subsidiaries are also subject to capital adequacy requirements. As of December 31, 2022 and 2021, the Group and its subsidiaries complied with all applicable regulatory capital adequacy requirements.

Dividend restrictions

Certain of the Group's subsidiaries are subject to legal restrictions governing the amount of dividends they can pay (for example, pursuant to corporate law as defined by the Swiss Code of Obligations).

Under the Swiss Code of Obligations, dividends may be paid out only if and to the extent the corporation has distributable profits or distributable reserves. For holding companies, legal reserves may be distributed if they exceed, after deduction of any accumulated losses, treasury shares and reserves for own shares held by subsidiaries, 20% of the share capital registered in the commercial register. Furthermore, dividends may be paid out only after shareholder approval.

As of December 31, 2022 and 2021, Credit Suisse Group AG was not subject to restrictions on its ability to pay the proposed dividends.

Swiss metrics

end of	2022	2021
Swiss capital (CHF million)		
Swiss CET1 capital	35,290	38,529
Going concern capital	50,026	54,372
Gone concern capital	49,117	46,648 ¹
Total loss-absorbing capacity (TLAC)	99,143	101,020
Swiss risk-weighted assets and leverage exposure (CHF million)		
Swiss risk-weighted assets	250,963	268,418
Leverage exposure	650,551	889,137
Swiss capital ratios (%)		
Swiss CET1 ratio	14.1	14.4
Going concern capital ratio	19.9	20.3
Gone concern capital ratio	19.6	17.4
TLAC ratio	39.5	37.6
Swiss leverage ratios (%)		
Swiss CET1 leverage ratio	5.4	4.3
Going concern leverage ratio	7.7	6.1
Gone concern leverage ratio	7.6	5.2
TLAC leverage ratio	15.2	11.4
Swiss capital ratio requirements (%)		
Swiss CET1 ratio requirement	9.28	10.0
Going concern capital ratio requirement	13.58 ²	14.3
Gone concern capital ratio requirement	13.58	14.3
TLAC ratio requirement	27.16	28.6
Swiss leverage ratio requirements (%)		
Swiss CET1 leverage ratio requirement	3.25	3.5
Going concern leverage ratio requirement	4.75 ²	5.0
Gone concern leverage ratio requirement	4.75	5.0
TLAC leverage ratio requirement	9.5	10.0

- Amounts are shown on a look-through basis. Certain tier 2 instruments and their related tier 2 amortization components were subject to phase out and are no longer eligible as of January 1, 2022. As of 2021, gone concern capital was CHF 46,897 million, including CHF 249 million of such instruments.
- The total requirement excluded the FINMA Pillar 2 capital add-on of CHF 1,850 million relating to the supply chain finance funds matter. This Pillar 2 capital add-on equated to an additional Swiss CET1 capital ratio requirement of 74 basis points and an additional Swiss CET1 leverage ratio requirement of 28 basis points.

39 Assets under management

The following disclosure provides information regarding client assets, assets under management and net new assets as regulated by FINMA.

Assets under management

Assets under management include assets for which the Group provides investment advisory or discretionary asset management services, investment fund assets and assets invested in other investment fund-like pooled investment vehicles managed by the Group. The classification of assets under management is conditional upon the nature of the services provided by the Group and the clients' intentions. Assets are individually assessed on the basis of each client's intentions and objectives and the nature of the banking services provided to that client. In order to be classified as assets under management, the Group must currently or in the foreseeable future expect to provide a service where the involvement of the Group's banking or investment expertise (e.g. as asset manager or investment advisor) is not purely executional or custodial in nature.

Assets under custody are client assets held mainly for execution-related or safekeeping/custody purposes only and therefore are not considered assets under management since the Group does not generally provide asset allocation or financial advice.

Assets of corporate clients and public institutions that are used primarily for cash management or transaction executional purposes for which no investment advice is provided are classified as commercial assets or assets under custody and therefore do not qualify as assets under management.

For the purpose of classifying assets under management, clients with multiple accounts are assessed from an overall relationship perspective. Accounts that are clearly separate from the remainder of the client relationship and represent assets held for custody purposes only are not included as assets under management.

The initial classification of the assets may not be permanent as the nature of the client relationship is reassessed on an on-going basis. If changes in client intent or activity warrant reclassification between client asset categories, the required reclassification adjustments are made immediately when the change in intent or activity occurs. Reclassifications between assets under management and assets held for transaction-related or custodial purposes result in corresponding net asset inflows or outflows.

A portion of the Group's assets under management results from double counting. Double counting arises when assets under management are subject to more than one level of asset management services. Each separate advisory or discretionary service provides additional benefits to the client and represents additional income for the Group. Specifically, double counting primarily results from

the investment of assets under management in collective investment instruments managed by the Group. The extent of double counting is disclosed in the following table.

Assets under management

end of	2022	2021
CHF billion		
Assets in collective investment instruments managed by Credit Suisse	196.7	231.8
Assets with discretionary mandates	244.1	294.8
Other assets under management	852.8	1,087.4
Assets under management (including double counting)	1,293.6	1,614.0
of which double counting	32.1	46.2

Changes in assets under management

	2022	2021
Assets under management (CHF billion)		
Balance at beginning of period ¹	1,614.0	1,511.9
Net new assets/(net asset outflows)	(123.2) ²	30.9
Market movements, interest, dividends and foreign exchange (170.0)		92.6
of which market movements, interest and dividends ³	(165.9)	80.8
of which foreign exchange	(4.1)	11.8
Other effects	(27.2)	(21.4)
Balance at end of period	1,293.6	1,614.0

- 1 Including double counting.
- 2 Refer to "Outflows in assets under management in the fourth quarter of 2022" in Note 3 – Business developments, significant shareholders and subsequent events for further information on net asset outflows.
- 3 Net of commissions and other expenses and net of interest expenses charged.

Net new assets

Net new assets measure the degree of success in acquiring assets under management or changes in assets under management through warranted reclassifications. The calculation is based on the direct method, taking into account individual cash payments, security deliveries and cash flows resulting from loan increases or repayments.

Interest and dividend income credited to clients and commissions, interest and fees charged for banking services as well as changes in assets under management due to currency and market volatility are not taken into account when calculating net new assets, as such charges or market movements are not directly related to the Group's success in acquiring assets under management. Similarly other effects mainly relate to asset inflows and outflows due to acquisition or divestiture, exit from businesses or markets or exits due to new regulatory requirements and are not taken into account when calculating net new assets. The Group reviews relevant policies regarding client assets on a regular basis.

Divisional allocation

Assets under management and net new assets for Wealth Management and Swiss Bank are allocated based on the management areas (business areas) that effectively manage the assets. The distribution of net new assets resulting from internal referral arrangements is governed under the net new asset referral

framework, which includes preset percentages for the allocation of net new assets to the businesses.

The allocation of assets under management and net new assets for Asset Management reflects the location where the investment vehicles are managed and where the costs of managing the funds are incurred.

40 Litigation

The Group is involved in a number of judicial, regulatory and arbitration proceedings concerning matters arising in connection with the conduct of its businesses, including those disclosed below. Some of these proceedings have been brought on behalf of various classes of claimants and seek damages of material and/or indeterminate amounts.

The Group accrues loss contingency litigation provisions and takes a charge to income in connection with certain proceedings when losses, additional losses or ranges of loss are probable and reasonably estimable. The Group also accrues litigation provisions for the estimated fees and expenses of external lawyers and other service providers in relation to such proceedings, including in cases for which it has not accrued a loss contingency provision. The Group accrues these fee and expense litigation provisions and takes a charge to income in connection therewith when such fees and expenses are probable and reasonably estimable. The Group reviews its legal proceedings each quarter to determine the adequacy of its litigation provisions and may increase or release provisions based on management's judgment and the advice of counsel. This review includes consideration of management's strategy for resolution of matters through settlement or trial, as well as changes in such strategy. The establishment of additional provisions or releases of litigation provisions may be necessary in the future as developments in such proceedings warrant.

The specific matters described below include (a) proceedings where the Group has accrued a loss contingency provision, given that it is probable that a loss may be incurred and such loss is reasonably estimable; and (b) proceedings where the Group has not accrued such a loss contingency provision for various reasons, including, but not limited to, the fact that any related losses are not reasonably estimable. The description of certain of the matters below includes a statement that the Group has established a loss contingency provision and discloses the amount of such provision; for the other matters no such statement is made. With respect to the matters for which no such statement is made, either (a) the Group has not established a loss contingency provision, in which case the matter is treated as a contingent liability under the applicable accounting standard, or (b) the Group has established such a provision but believes that disclosure of that fact would violate confidentiality obligations to which the Group is subject or otherwise compromise attorney-client privilege, work product protection or other protections against disclosure or

compromise the Group's management of the matter. The future outflow of funds in respect of any matter for which the Group has accrued loss contingency provisions cannot be determined with certainty based on currently available information, and accordingly may ultimately prove to be substantially greater (or may be less) than the provision that is reflected on the Group's balance sheet.

It is inherently difficult to determine whether a loss is probable or even reasonably possible or to estimate the amount of any loss or loss range for many of the Group's legal proceedings. Estimates, by their nature, are based on judgment and currently available information and involve a variety of factors, including, but not limited to, the type and nature of the proceeding, the progress of the matter, the advice of counsel, the Group's defenses and its experience in similar matters, as well as its assessment of matters, including settlements, involving other defendants in similar or related cases or proceedings. Factual and legal determinations, many of which are complex, must be made before a loss, additional losses or ranges of loss can be reasonably estimated for any proceeding.

Most matters pending against the Group seek damages of an indeterminate amount. While certain matters specify the damages claimed, such claimed amount may not represent the Group's reasonably possible losses. For certain of the proceedings discussed below the Group has disclosed the amount of damages claimed and certain other quantifiable information that is publicly available.

The following table presents a roll forward of the Group's aggregate litigation provisions.

Litigation provisions

	2022
CHF million	
Balance at beginning of period	1,539
Increase in litigation accruals	1,907
Decrease in litigation accruals	(347)
Decrease for settlements and other cash payments	(1,999)
Foreign exchange translation	72
Balance at end of period	1,172

The Group's aggregate litigation provisions include estimates of losses, additional losses or ranges of loss for proceedings for which such losses are probable and can be reasonably estimated. The Group does not believe that it can estimate an aggregate range of reasonably possible losses for certain of its proceedings because of their complexity, the novelty of some of the claims, the early stage of the proceedings, the limited amount of discovery that has occurred and/or other factors. The Group's estimate of the aggregate range of reasonably possible losses that are not covered by existing provisions for the proceedings discussed below for which the Group believes an estimate is possible is zero to CHF 1.2 billion.

After taking into account its litigation provisions, the Group believes, based on currently available information and advice of counsel, that the results of its legal proceedings, in the aggregate, will not have a material adverse effect on the Group's financial condition. However, in light of the inherent uncertainties of such proceedings, including those brought by regulators or other governmental authorities, the ultimate cost to the Group of resolving such proceedings may exceed current litigation provisions and any excess may be material to its operating results for any particular period, depending, in part, upon the operating results for such period.

Mortgage-related matters

Government and regulatory related matters

Various financial institutions, including Credit Suisse Securities (USA) LLC (CSS LLC) and certain of its affiliates, have received requests for information from, and/or have been defending civil actions by, certain regulators and/or government entities, including the US Department of Justice (DOJ) and other members of the Residential Mortgage-Backed Securities (RMBS) Working Group of the US Financial Fraud Enforcement Task Force, regarding the origination, purchase, securitization, servicing and trading of subprime and non-subprime residential and commercial mortgages and related issues. CSS LLC and its affiliates are cooperating with such requests for information.

DOJ RMBS settlement

As previously disclosed, on January 18, 2017, CSS LLC and its current and former US subsidiaries and US affiliates reached a settlement with the DOJ related to its legacy RMBS business, a business conducted through 2007. The settlement resolved potential civil claims by the DOJ related to certain of those Credit Suisse entities' packaging, marketing, structuring, arrangement, underwriting, issuance and sale of RMBS. Pursuant to the terms of the settlement a civil monetary penalty was paid to the DOJ in January 2017. The settlement also required the above-mentioned entities to provide certain levels of consumer relief measures, including affordable housing payments and loan forgiveness, and the DOJ and Credit Suisse agreed to the appointment of an independent monitor to oversee the completion of the consumer relief requirements of the settlement. Credit Suisse continues to evaluate its approach toward satisfying its remaining consumer relief obligations in light of its business reassessment and anticipated related transactions, and Credit Suisse currently anticipates

that it will take much longer than the five-year period provided in the settlement to satisfy in full its obligations in respect of these consumer relief measures and that it may only complete them by 2026 or later, subject to market conditions and the Group's risk appetite. Credit Suisse expects to incur costs in relation to satisfying those obligations. The amount of consumer relief Credit Suisse must provide also increases after 2021 pursuant to the original settlement by 5% per annum of the outstanding amount due until these obligations are settled. The monitor publishes reports periodically on these consumer relief matters.

NJAG litigation

On December 18, 2013, the New Jersey Attorney General (NJAG), on behalf of the State of New Jersey, filed a civil action in the Superior Court of New Jersey, Chancery Division, Mercer County (SCNJ), against CSS LLC and affiliated entities in their roles as issuer, sponsor, depositor and/or underwriter of RMBS transactions prior to 2008. The complaint, which referenced approximately USD 10 billion of original unpaid principal balance across 13 RMBS issued, sponsored, deposited and underwritten by CSS LLC and its affiliates in 2006 and 2007, alleged that CSS LLC and its affiliates misled investors and engaged in fraud or deceit in connection with the offer and sale of RMBS, and sought an unspecified amount of damages. On October 25, 2022, following a settlement in the amount of USD 495 million, for which Credit Suisse was fully reserved, the SCNJ dismissed with prejudice all claims against CSS LLC and affiliated entities.

Civil litigation

CSS LLC and/or certain of its affiliates have also been named as defendants in various civil litigation matters related to their roles as issuer, sponsor, depositor, underwriter and/or servicer of RMBS transactions. These cases include or have included class action lawsuits, actions by individual investors in RMBS, actions by monoline insurance companies that guaranteed payments of principal and interest for certain RMBS, and repurchase actions by RMBS trusts, trustees and/or investors. Although the allegations vary by lawsuit, plaintiffs in the class actions and individual investor actions generally allege that the offering documents of securities issued by various RMBS securitization trusts contained material misrepresentations and omissions, including statements regarding the underwriting standards pursuant to which the underlying mortgage loans were issued; monoline insurers generally allege that loans that collateralize RMBS they insured breached representations and warranties made with respect to the loans at the time of securitization and that they were fraudulently induced to enter into the transactions; and repurchase action plaintiffs generally allege breached representations and warranties in respect of mortgage loans and failure to repurchase such mortgage loans as required under the applicable agreements. The amounts disclosed below do not reflect actual realized plaintiff losses to date or anticipated future litigation exposure. Rather, unless otherwise stated, these amounts reflect the original unpaid principal balance amounts as alleged in these actions and do not include any reduction in principal amounts since issuance. Further, unless otherwise stated, amounts attributable to an "operative pleading" for the individual investor actions are not

altered for settlements, dismissals or other occurrences, if any, that may have caused the amounts to change subsequent to the operative pleading. In addition to the mortgage-related actions discussed below, a number of other entities have threatened to assert claims against CSS LLC and/or its affiliates in connection with various RMBS issuances.

Individual investor actions

CSS LLC as an RMBS issuer, underwriter and/or other participant, along with other defendants, was named as a defendant in an action brought by the Federal Deposit Insurance Corporation (FDIC), as receiver for Colonial Bank, in the US District Court for the Southern District of New York (SDNY), in which claims against CSS LLC related to approximately USD 92 million of the RMBS at issue (approximately 23% of the USD 394 million at issue against all defendants in the operative pleading). On June 28, 2022, CSS LLC and the plaintiffs executed an agreement to settle and dismiss all claims against CSS LLC.

In early March 2022, in an action brought by the FDIC, as receiver for Citizens National Bank and Strategic Capital Bank, in the SDNY, in which claims related to approximately USD 28 million of RMBS at issue, CSS LLC and its affiliates executed an agreement with the plaintiffs to settle and dismiss all claims against CSS LLC and its affiliates.

CSS LLC and certain of its affiliates were the only defendants named in an action brought by IKB Deutsche Industriebank AG and affiliated entities in the Supreme Court for the State of New York, New York County (SCNY), in which claims against CSS LLC and its affiliates related to approximately USD 97 million of RMBS at issue. On April 12, 2022, the parties executed an agreement to settle and dismiss all claims against CSS LLC and its affiliates.

Repurchase litigations

DLJ Mortgage Capital, Inc. (DLJ) is a defendant in: (i) one action brought by Asset Backed Securities Corporation Home Equity Loan Trust, Series 2006-HE7, in which plaintiff alleges damages of not less than USD 374 million in an amended complaint filed on August 19, 2019; on January 13, 2020, DLJ filed a motion to dismiss; (ii) one action brought by Home Equity Asset Trust, Series 2006-8, in which plaintiff alleges damages of not less than USD 436 million; (iii) one action brought by Home Equity Asset Trust 2007-1, in which plaintiff alleges damages of not less than USD 420 million; on December 27, 2018, the SCNY denied DLJ's motion for partial summary judgment in this action, and the Appellate Division First Department of the SCNY (First Department) affirmed the SCNY's summary judgment order on October 10, 2019; on January 30, 2020, DLJ obtained leave to further appeal to the New York State Court of Appeals; on March 17, 2022, the New York State Court of Appeals reversed the decision of the First Department and ordered that DLJ's motion for partial summary judgment be granted; a non-jury trial in the action was held between January 23 and February 3, 2023, and a decision is pending; (iv) one action brought by Home Equity

Asset Trust 2007-2, in which plaintiff alleges damages of not less than USD 495 million; and (v) one action brought by CSMC Asset-Backed Trust 2007-NC1, in which no damages amount is alleged. These actions are brought in the SCNY and are at various procedural stages.

DLJ is also a defendant in one action brought by Home Equity Asset Trust Series 2007-3, in which plaintiff alleges damages of not less than USD 206 million. On March 5, 2022, DLJ and the plaintiffs executed an agreement to settle this action. The settlement remains subject to approval through a trust instruction proceeding brought in Minnesota state court by the trustee of the plaintiff trust.

DLJ and its affiliate, Select Portfolio Servicing, Inc. (SPS), are defendants in two actions that have been consolidated for certain procedural purposes, including trial, in the SCNY: one action brought by Home Equity Mortgage Trust Series 2006-1, Home Equity Mortgage Trust Series 2006-3 and Home Equity Mortgage Trust Series 2006-4, in which plaintiffs allege damages of not less than USD 730 million, and allege that SPS obstructed the investigation into the full extent of the defects in the mortgage pools by refusing to afford the trustee reasonable access to certain origination files; and one action brought by Home Equity Mortgage Trust Series 2006-5, in which plaintiff alleges damages of not less than USD 500 million, and alleges that SPS likely discovered DLJ's alleged breaches of representations and warranties but did not notify the trustee of such breaches, in alleged violation of its contractual obligations. On April 19, 2021, DLJ, SPS and the plaintiffs executed an agreement to settle both actions for the aggregate amount of USD 500 million, for which Credit Suisse was fully reserved. The settlement remains subject to approval through a trust instruction proceeding brought in Minnesota state court by the trustee of the plaintiff trusts.

Following the earlier dismissal of three consolidated repurchase actions in the SCNY in 2013 and the New York State Court of Appeals' upholding of this dismissal in February 2019, on August 15, 2019, the trustees for Home Equity Asset Trust 2006-5, Home Equity Asset Trust 2006-6 and Home Equity Asset Trust 2006-7 commenced a new repurchase action against DLJ in the SCNY, in which plaintiffs alleged damages of not less than USD 936 million, asserting substantially similar claims against DLJ as those alleged in the three consolidated repurchase actions previously dismissed with prejudice in 2013. On November 25, 2019, the SCNY entered an order dismissing this new action with prejudice. On December 20, 2019, the plaintiffs filed a notice of appeal to the First Department. On November 22, 2022, the plaintiffs withdrew their appeal to the First Department, such that the action is now fully dismissed.

Bank loan litigation

CSS LLC and certain of its affiliates are the subject of certain litigation relating to certain real estate developments including Yellow-stone Club and Lake Las Vegas as well as other similar real estate

developments. Credit Suisse defendants in these matters arranged, and acted as the agent bank for, syndicated loans provided to borrowers affiliated with such real estate developments, and who have since gone through bankruptcy or foreclosure. Such litigation includes two cases brought in Texas and New York state courts by entities related to Highland Capital Management LP (Highland). In the case in Texas state court, a jury trial was held in December 2014 and a verdict was issued for the plaintiff on its claim for fraudulent inducement by affirmative misrepresentation, but the jury rejected its claim that CSS LLC and an affiliate had committed fraudulent inducement by omission. The Texas judge held a bench trial on Highland's remaining claims in May and June 2015, and entered judgment in the amount of USD 287 million (including prejudgment interest) for the plaintiff on September 4, 2015. Both parties appealed and on February 21, 2018, the appeals court affirmed the lower court's decision. On April 24, 2020, the Texas Supreme Court issued a ruling reversing a portion of the trial court's September 4, 2015 judgment related to the bench trial, thereby dismissing plaintiff's breach of contract, breach of the implied duty of good faith and fair dealing, aiding and abetting fraud, and civil conspiracy claims, including damages of approximately USD 212 million, exclusive of interest, but left standing the separate December 2014 jury verdict for plaintiff on its claims for fraudulent inducement by affirmative misrepresentation. The Texas Supreme Court subsequently remanded the case back to the trial court for further proceedings related to the calculation of damages and interest. On June 25, 2021, the trial court entered a new judgment, which awarded plaintiff a total of approximately USD 121 million. CSS LLC and its affiliates appealed the judgment. On February 14, 2023, the appeals court issued a ruling, reversing in favor of CSS LLC a portion of the trial court's June 25, 2021 judgment related to secondary market purchases, concluding in favor of CSS LLC that the trial court erred by failing to apply certain settlement credits to the December 2014 jury award amount and remanding the case to the trial court to consider the amount of prejudgment interest owed to Highland.

In the case in New York state court, the court granted in part and denied in part CSS LLC and certain of its affiliates' summary judgment motion. Both parties appealed that decision, but the appellate court affirmed the decision in full. The case is currently in discovery.

Tax and securities law matters

On May 19, 2014, Credit Suisse AG entered into settlement agreements with several US regulators regarding its US cross-border matters. As part of the agreements, Credit Suisse AG, among other things, engaged an independent corporate monitor that reports to the New York State Department of Financial Services. As of July 31, 2018, the monitor concluded both his review and his assignment. Credit Suisse AG continues to report to and cooperate with US authorities in accordance with Credit Suisse AG's obligations under the agreements.

Rates-related matters

Regulatory matters

Regulatory authorities in a number of jurisdictions, including the US, UK, EU and Switzerland, have for an extended period of time been conducting investigations into the setting of LIBOR and other reference rates with respect to a number of currencies, as well as the pricing of certain related derivatives. These ongoing investigations have included information requests from regulators regarding LIBOR-setting practices and reviews of the activities of various financial institutions, including Credit Suisse Group AG, which is a member of three LIBOR rate-setting panels (US Dollar LIBOR, Swiss Franc LIBOR and Euro LIBOR). Credit Suisse is cooperating fully with these investigations. In particular, it has been reported that regulators are investigating whether financial institutions engaged in an effort to manipulate LIBOR, either individually or in concert with other institutions, in order to improve market perception of these institutions' financial health and/or to increase the value of their proprietary trading positions. In response to regulatory inquiries, Credit Suisse commissioned a review of these issues. To date, Credit Suisse has seen no evidence to suggest that it is likely to have any material exposure in connection with these issues.

Regulatory authorities in a number of jurisdictions, including the Swiss Competition Commission (COMCO), the European Commission (Commission), the South African Competition Commission and the Brazilian Competition Authority have been conducting investigations into the trading activities, information sharing and the setting of benchmark rates in the foreign exchange (including electronic trading) markets.

On March 31, 2014, COMCO announced its formal investigation of numerous Swiss and international financial institutions, including Credit Suisse Group AG, in relation to the setting of exchange rates in foreign exchange trading. Credit Suisse continues to cooperate with this ongoing investigation.

Credit Suisse Group AG, Credit Suisse AG and Credit Suisse Securities (Europe) Limited (CSSEL) received a Statement of Objections and a Supplemental Statement of Objections from the Commission on July 26, 2018 and March 19, 2021, respectively, alleging that Credit Suisse entities engaged in anticompetitive practices in connection with their foreign exchange trading business. On December 6, 2021, the Commission issued a formal decision imposing a fine of EUR 83.3 million. On February 15, 2022, Credit Suisse appealed this decision to the EU General Court.

The reference rates investigations have also included information requests from regulators concerning supranational, sub-sovereign and agency (SSA) bonds and commodities markets. Credit Suisse Group AG and CSSEL received a Statement of Objections from the Commission on December 20, 2018, alleging that Credit Suisse entities engaged in anticompetitive practices in connection with their SSA bonds trading business. On April 28, 2021, the

Commission issued a formal decision imposing a fine of EUR 11.9 million. On July 8, 2021, Credit Suisse appealed this decision to the EU General Court.

Civil litigation

USD LIBOR litigation

Beginning in 2011, certain Credit Suisse entities were named in various putative class and individual lawsuits filed in the US, alleging banks on the US dollar LIBOR panel manipulated US dollar LIBOR to benefit their reputation and increase profits. All remaining matters have been consolidated for pre-trial purposes into a multi-district litigation in the SDNY.

In a series of rulings between 2013 and 2019 on motions to dismiss, the SDNY (i) narrowed the claims against the Credit Suisse entities and the other defendants (dismissing antitrust, Racketeer Influenced and Corrupt Organizations Act (RICO), Commodity Exchange Act, and state law claims), (ii) narrowed the set of plaintiffs who may bring claims, and (iii) narrowed the set of defendants in the LIBOR actions (including the dismissal of several Credit Suisse entities from various cases on personal jurisdiction and statute of limitation grounds). After a number of putative class and individual plaintiffs appealed the dismissal of their antitrust claims to the United States Court of Appeals for the Second Circuit (Second Circuit), on December 30, 2021, the Second Circuit affirmed in part and reversed in part the district court's decision and remanded the case to the SDNY.

On September 21, 2021, in the putative class action brought in the multi-district litigation in the SDNY by holders of bonds tied to LIBOR, Credit Suisse entered into an agreement to settle all claims. On November 7, 2022, the court entered an order granting preliminary approval to the agreement to settle all claims. The settlement remains subject to final court approval.

Separately, on February 4, 2022, three actions brought by individual plaintiffs, and on November 18, 2022, one additional individual action, were dismissed against Credit Suisse.

On November 17, 2021, in the putative class action brought on behalf of those who lent at rates tied to LIBOR, Credit Suisse entered into an agreement to settle all claims. On March 11, 2022 and July 26, 2022, respectively, the SDNY entered orders granting preliminary and final approval to the agreement to settle all claims.

Separately, on May 4, 2017, the plaintiffs in three putative class actions moved for class certification. On February 28, 2018, the SDNY denied certification in two of the actions and granted certification over a single antitrust claim in an action brought by over-the-counter purchasers of LIBOR-linked derivatives.

USD ICE LIBOR litigation

In January 2019, members of the US dollar Intercontinental Exchange (ICE) LIBOR panel, including Credit Suisse Group AG and certain of its affiliates, were named in three civil putative class action lawsuits alleging that panel banks suppressed US

dollar ICE LIBOR to benefit defendants' trading positions. These actions have been consolidated in the SDNY. On March 26, 2020, the SDNY granted defendants' motion to dismiss, and on February 14, 2022, the Second Circuit dismissed plaintiffs' appeal of the SDNY's decision granting defendants' motion to dismiss.

On August 18, 2020, members of the ICE LIBOR panel, including Credit Suisse Group AG and certain of its affiliates, were named in a civil action in the US District Court for the Northern District of California, alleging that panel banks manipulated ICE LIBOR to profit from variable interest loans and credit cards. On December 23, 2021, the court denied plaintiffs' motion for preliminary and permanent injunctions to enjoin panel banks from continuing to set LIBOR or automatically setting the benchmark to zero each day, and on September 13, 2022, the court granted defendants' motions to dismiss. On October 4, 2022, plaintiffs filed an amended complaint. On November 4, 2022, defendants filed a motion to dismiss the amended complaint.

CHF LIBOR litigation

In February 2015, various banks that served on the Swiss franc LIBOR panel, including Credit Suisse Group AG, were named in a civil putative class action lawsuit filed in the SDNY, alleging manipulation of Swiss franc LIBOR to benefit defendants' trading positions. After defendants' motion to dismiss for lack of subject matter jurisdiction was granted and plaintiffs successfully appealed, on July 13, 2022, Credit Suisse entered into an agreement to settle all claims. On February 15, 2023, the court entered an order granting preliminary approval to the agreement to settle all claims. The settlement remains subject to final court approval.

SIBOR/SOR litigation

In July 2016, various banks that served on the Singapore Interbank Offered Rate (SIBOR) and Singapore Swap Offer Rate (SOR) panels, including Credit Suisse Group AG and affiliates, were named in a civil putative class action lawsuit filed in the SDNY, alleging manipulation of SIBOR and SOR to benefit defendants' trading positions. After defendants' motion to dismiss for lack of subject matter jurisdiction was granted and plaintiffs successfully appealed, on April 22, 2022, Credit Suisse entered into an agreement to settle all claims. On June 9, 2022 and November 29, 2022, respectively, the court entered orders granting preliminary and final approval to the agreement to settle all claims.

Foreign exchange litigation

Credit Suisse Group AG and affiliates as well as other financial institutions have been named in civil lawsuits relating to the alleged manipulation of foreign exchange rates.

The first pending matter is a consolidated class action. In that matter, on September 3, 2019, the SDNY denied plaintiffs' motion for certification of a Rule 23(b)(3) damages class, ruling that proof of both injury and damages must proceed on an individual basis, but granted certification as to two threshold issues concerning the alleged conspiracy. The SDNY also denied plaintiffs'

motion for certification of a second proposed class in its entirety. On February 1, 2022, the SDNY denied the parties' cross-motions for summary judgment. On April 22, 2022, Credit Suisse filed a motion to de-certify the issue class, which was denied on August 31, 2022. A jury trial was held in October 2022 on the issues of whether a conspiracy existed to manipulate bid-ask spreads in the FX market and whether Credit Suisse knowingly participated in any such conspiracy. On October 20, 2022, a verdict was issued in favor of Credit Suisse, finding that Credit Suisse did not knowingly participate in any such conspiracy. On November 10, 2022, plaintiffs moved for a new trial, which was denied on February 16, 2023.

A second pending matter originally named Credit Suisse Group AG and affiliates, as well as other financial institutions, in a civil action filed in the SDNY on November 13, 2018. This action was based on the same alleged conduct as the consolidated class action. After the court granted in part and denied in part defendants' motion to dismiss the second amended complaint, and plaintiffs filed a third amended complaint, on July 27, 2022, Credit Suisse entered into an agreement to settle all claims. On August 31, 2022, pursuant to the settlement agreement, the court dismissed with prejudice plaintiffs' claims against Credit Suisse.

Credit Suisse AG, together with other financial institutions, was also named in a consolidated putative class action in Israel, which made allegations similar to the consolidated class action. On April 4, 2022, Credit Suisse entered into an agreement to settle all claims. The settlement remains subject to court approval.

Treasury markets litigation

CSS LLC, along with over 20 other primary dealers of US treasury securities, was named in a number of putative civil class action complaints in the US relating to the US treasury markets. These complaints generally alleged that the defendants colluded to manipulate US treasury auctions, as well as the pricing of US treasury securities in the when-issued market, with impacts upon related futures and options. These actions were consolidated into a multi-district litigation in the SDNY. On November 15, 2017, plaintiffs filed a consolidated amended class action complaint containing the previously asserted allegations as well as new allegations concerning a group boycott to prevent the emergence of anonymous, all-to-all trading in the secondary market for treasury securities. On May 22, 2018, defendants filed motions to dismiss, which the SDNY granted on March 31, 2021. On May 14, 2021, plaintiffs filed an amended complaint. On August 4, 2021, defendants filed a motion to dismiss. On March 31, 2022, the SDNY granted defendants' motion to dismiss and dismissed with prejudice all claims against the defendants. On April 28, 2022, plaintiffs filed a notice of appeal.

SSA bonds litigation

Credit Suisse Group AG and affiliates, along with other financial institutions and individuals, have been named in several putative class action complaints filed in the SDNY relating to SSA bonds. The complaints generally allege that defendants conspired to fix the prices of SSA bonds sold to and purchased from investors in the

secondary market. These actions have been consolidated in the SDNY. On July 19, 2021, the Second Circuit affirmed the SDNY's September 30, 2019 and March 18, 2020 decisions granting defendants' motions to dismiss. On August 2, 2021, the plaintiffs filed a petition for rehearing en banc and panel rehearing, which the Second Circuit denied on September 2, 2021. On March 3, 2022, plaintiffs moved to vacate the dismissal of their case after the SDNY judge disclosed a conflict. On October 3, 2022, the court denied plaintiffs' motion.

Credit Suisse Group AG and certain of its affiliates, together with other financial institutions, were also named in two Canadian putative class actions, which make allegations similar to the consolidated class action. One putative class action was dismissed against Credit Suisse on February 19, 2020. On October 18, 2022, in the second action, Credit Suisse entered into an agreement to settle all claims. The settlement remains subject to court approval.

Bank Bill Swap litigation

On August 16, 2016, Credit Suisse Group AG and Credit Suisse AG, along with other financial institutions, were named in a putative class action brought in the SDNY, alleging manipulation of the Australian Bank Bill Swap reference rate. After the court granted in part and denied in part defendants' motion to dismiss, on January 21, 2022, Credit Suisse entered into an agreement to settle all claims. On May 11, 2022 and November 2, 2022, respectively, the court entered orders granting preliminary and final approval to the agreement to settle all claims.

Credit default swap auction litigation

On June 30, 2021, Credit Suisse Group AG and affiliates, along with other banks and entities, were named in a putative class action complaint filed in the US District Court for the District of New Mexico alleging manipulation of credit default swap (CDS) final auction prices. On February 4, 2022, plaintiffs voluntarily dismissed their claims against Credit Suisse Group and certain non-Credit Suisse entities and filed an amended complaint naming Credit Suisse AG and affiliates, along with other banks and entities. On April 5, 2022, defendants filed a motion to dismiss.

OTC trading cases

Interest rate swaps litigation

Credit Suisse Group AG and affiliates, along with other financial institutions, have been named in a consolidated putative civil class action complaint and complaints filed by individual plaintiffs relating to interest rate swaps, alleging that dealer defendants conspired with trading platforms to prevent the development of interest rate swap exchanges. The individual lawsuits were brought by Tera-Exchange LLC, a swap execution facility, and affiliates; Javelin Capital Markets LLC, a swap execution facility, and an affiliate; and trueEX LLC, a swap execution facility, which claim to have suffered lost profits as a result of defendants' alleged conspiracy. All interest rate swap actions have been consolidated in a multi-district litigation in the SDNY.

Defendants moved to dismiss the putative class and individual actions, and the SDNY granted in part and denied in part these motions.

On February 20, 2019, class plaintiffs in the consolidated multi-district litigation filed a motion for class certification. On March 20, 2019, class plaintiffs filed a fourth amended consolidated class action complaint. On January 21, 2022, Credit Suisse entered into an agreement to settle all class action claims. The settlement remains subject to court approval. The individual lawsuits are stayed pending a decision on plaintiffs' motion for class certification.

Credit default swaps litigation

On June 8, 2017, Credit Suisse Group AG and affiliates, along with other financial institutions, were named in a civil action filed in the SDNY by Tera Group, Inc. and related entities (Tera), alleging violations of antitrust law in connection with the allegation that CDS dealers conspired to block Tera's electronic CDS trading platform from successfully entering the market. On July 30, 2019, the SDNY granted in part and denied in part defendants' motion to dismiss. On January 30, 2020, plaintiffs filed an amended complaint. On April 3, 2020, defendants filed a motion to dismiss.

Stock loan litigation

Credit Suisse Group AG and certain of its affiliates, as well as other financial institutions, were originally named in a number of civil lawsuits in the SDNY, certain of which are brought by class action plaintiffs alleging that the defendants conspired to keep stock-loan trading in an over-the-counter market and collectively boycotted certain trading platforms that sought to enter the market, and certain of which are brought by trading platforms that sought to enter the market alleging that the defendants collectively boycotted the platforms. After the court denied defendants' motion to dismiss the putative class action and plaintiffs filed a motion for class certification, on January 20, 2022, Credit Suisse entered into an agreement to settle all class action claims. On February 25, 2022, the court entered an order granting preliminary approval to the agreement to settle all class action claims. The settlement remains subject to final court approval.

On October 1, 2021, in a consolidated civil litigation brought in the SDNY by entities that developed a trading platform for stock loans that sought to enter the market, alleging that the defendants collectively boycotted the platform, the court granted defendants' motion to dismiss. On October 25, 2021, plaintiffs filed a notice of appeal.

Odd-lot corporate bond litigation

On April 21, 2020, CSS LLC and other financial institutions were named in a putative class action complaint filed in the SDNY, alleging a conspiracy among the financial institutions to boycott electronic trading platforms and fix prices in the secondary market for odd-lot corporate bonds. On October 25, 2021, the SDNY granted defendants' motion to dismiss. On November 23, 2021, plaintiffs filed a notice of appeal to the Second Circuit. On

March 1, 2022, plaintiffs moved to stay the appeal so that plaintiffs could move to vacate the dismissal of their case after the SDNY judge disclosed a conflict. The motion to stay the appeal was denied on March 15, 2022. On March 30, 2022, because of the conflict, plaintiffs moved in the district court for an indicative ruling vacating the SDNY's decision dismissing the case. The motion for an indicative ruling was denied on November 10, 2022.

ATA litigation

A lawsuit was filed on November 10, 2014 in the US District Court for the Eastern District of New York (EDNY) against a number of banks, including Credit Suisse AG, alleging claims under the United States Anti-Terrorism Act (ATA). The action alleges a conspiracy between Iran and various international financial institutions, including the defendants, in which they agreed to alter, falsify or omit information from payment messages that involved Iranian parties for the express purpose of concealing the Iranian parties' financial activities and transactions from detection by US authorities. The complaint, brought by approximately 200 plaintiffs, alleges that this conspiracy has made it possible for Iran to transfer funds to Hezbollah and other terrorist organizations actively engaged in harming US military personnel and civilians. On July 12, 2016, plaintiffs filed a second amended complaint in the EDNY against a number of banks, including Credit Suisse AG, alleging claims under the ATA. On September 14, 2016, Credit Suisse AG and the other defendants filed motions to dismiss the plaintiffs' second amended complaint in the EDNY. On September 16, 2019, the EDNY granted defendants' motion to dismiss. On November 26, 2019, plaintiffs filed a notice of appeal. On January 5, 2023, the United States Court of Appeals for the Second Circuit affirmed the decision granting defendants' motion to dismiss.

Another lawsuit was filed on November 9, 2017 in the SDNY against a number of banks, including Credit Suisse AG, alleging claims under the ATA. On March 2, 2018, Credit Suisse AG and other defendants filed motions to dismiss the plaintiffs' complaint. On March 28, 2019, the SDNY granted the motion to dismiss. Plaintiffs cannot appeal the March 28, 2019 decision until the plaintiffs resolve their remaining claims, which remain pending, against an Iranian bank defendant that defaulted. On April 22, 2019, plaintiffs filed a motion for leave to amend their complaint, which the court denied on February 25, 2020, dismissing the case with prejudice as to Credit Suisse AG and the other moving bank defendants. On June 29, 2021, the court denied the plaintiffs' motion to appeal the court's February 25, 2020 decision.

In December 2018 and April 2019, six additional lawsuits were filed in the EDNY or SDNY against a number of banks, including Credit Suisse AG and, in two instances, Credit Suisse AG, New York Branch alleging claims under the ATA and the Justice Against Sponsors of Terrorism Act. These actions similarly allege a conspiracy between Iran and various international financial institutions, including the defendants, in which they agreed to alter, falsify or omit information from payment messages that involved

Iranian parties, and that this conspiracy made it possible for Iran to transfer funds to terrorist organizations actively engaged in harming US military personnel and civilians, and also assert ATA liability on an aiding and abetting theory. On January 6, 2020, defendants filed a motion to dismiss two of the EDNY cases, which the EDNY granted on June 5, 2020, dismissing the cases as to Credit Suisse AG and most of the other bank defendants. Three of the cases have been stayed pending the United States Supreme Court's decision in an unrelated ATA case, and in the remaining cases, the parties have jointly requested a similar stay.

Customer account matters

Several clients have claimed that a former relationship manager in Switzerland had exceeded his investment authority in the management of their portfolios, resulting in excessive concentrations of certain exposures and investment losses. Credit Suisse AG is investigating the claims, as well as transactions among the clients. Credit Suisse AG filed a criminal complaint against the former relationship manager with the Geneva Prosecutor's Office upon which the prosecutor initiated a criminal investigation. Several clients of the former relationship manager also filed criminal complaints with the Geneva Prosecutor's Office. On February 9, 2018, the former relationship manager was sentenced to five years in prison by the Geneva criminal court for fraud, forgery and criminal mismanagement and ordered to pay damages of approximately USD 130 million. Several parties have appealed the judgement. On June 26, 2019, the Criminal Court of Appeals of Geneva ruled in the appeal of the judgment against the former relationship manager, upholding the main findings of the Geneva criminal court. Several parties have appealed the decision to the Swiss Federal Supreme Court. On February 19, 2020, the Swiss Federal Supreme Court rendered its judgment on the appeals, substantially confirming the findings of the Criminal Court of Appeals of Geneva.

Civil lawsuits were initiated between August 7, 2017 and August 25, 2017 in the High Court of Singapore and the Supreme Court of Bermuda against Credit Suisse AG and/or certain affiliates, based on the findings established in the criminal proceedings against the former relationship manager.

In Singapore, on August 31, 2018, the civil lawsuit was stayed by an Assistant Registrar of the High Court of Singapore and plaintiffs appealed the decision. On January 18, 2019, the Singapore High Court dismissed the plaintiffs' appeal and upheld the Assistant Registrar's decision to stay the civil proceedings in Singapore. On April 29, 2019, the plaintiffs appealed the decision of the Singapore High Court only with respect to their action against Credit Suisse Trust Limited. On June 21, 2019, the plaintiffs discontinued their action against Credit Suisse AG. On July 3, 2020, the Singapore Court of Appeals granted the plaintiffs' appeal against Credit Suisse Trust Limited and lifted the stay of the civil proceedings, allowing the plaintiffs' civil claim

to proceed in the Singapore High Court. On July 10, 2020, plaintiffs filed an amended statement of claim in the Singapore High Court. On March 9, 2021, the Singapore High Court transferred the civil lawsuit to the Singapore International Commercial Court. On May 27, 2022, the Singapore International Commercial Court granted in part and denied in part plaintiff's application filed on March 30, 2022, to amend its statement of claim, allowing amendments that, among other things, introduce new allegations about Credit Suisse Trust Limited's awareness of the former Credit Suisse AG employee's wrongdoing and that certain employees of Credit Suisse AG and/or other Credit Suisse entities allegedly acted on behalf of Credit Suisse Trust Limited in relation to the administration of the trust. On July 1, 2022, Credit Suisse Trust Limited appealed the court's decision with respect to the allowed amendments. The appeal was dismissed on August 11, 2022. Trial took place in September 2022, with closing submissions filed in November 2022 and closing arguments heard in February 2023.

In Bermuda, in the civil lawsuit brought against a Credit Suisse affiliate, trial took place in the Supreme Court of Bermuda in November and December 2021. The Supreme Court of Bermuda issued a first instance judgment on March 29, 2022, finding for the plaintiff. On May 6, 2022, the Supreme Court of Bermuda issued an order awarding damages of USD 607.35 million to the plaintiff. On May 9, 2022, Credit Suisse Life (Bermuda) Ltd. appealed the decision to the Bermuda Court of Appeal. On July 25, 2022, the Supreme Court of Bermuda granted a stay of execution of its judgment pending appeal on the condition that damages awarded were paid into an escrow account within 42 days. Following satisfaction of the required condition, the Supreme Court of Bermuda granted a stay of execution of the judgment pending appeal.

FIFA-related matters

In connection with investigations by US government authorities into the involvement of financial institutions in the alleged bribery and corruption surrounding the Fédération Internationale de Football Association (FIFA), Credit Suisse received inquiries regarding its banking relationships with certain individuals and entities associated with FIFA, including but not limited to certain persons and entities named and/or described in the May 20, 2015 indictment and the November 25, 2015 superseding indictment filed by the EDNY US Attorney's Office. The investigations encompassed whether multiple financial institutions, including Credit Suisse, permitted the processing of suspicious or otherwise improper transactions, or failed to observe anti-money laundering laws and regulations, with respect to the accounts of certain persons and entities associated with FIFA. Credit Suisse continues to cooperate with US authorities on this matter. As previously disclosed, the Swiss Financial Market Supervisory Authority FINMA (FINMA) announced the conclusion of its related investigation in 2018.

Israel Desk matters

Credit Suisse has received governmental and regulatory inquiries concerning cross-border services provided by Credit Suisse's Switzerland-based Israel Desk. Credit Suisse is conducting a review of these issues and has been cooperating with the authorities.

Mozambique matter

Credit Suisse has been subject to investigations by regulatory and enforcement authorities, as well as civil litigation, regarding certain Credit Suisse entities' arrangement of loan financing to Mozambique state enterprises, Proindicus S.A. and Empresa Mocambiicana de Atum S.A. (EMATUM), a distribution to private investors of loan participation notes (LPN) related to the EMA-TUM financing in September 2013, and certain Credit Suisse entities' subsequent role in arranging the exchange of those LPNs for Eurobonds issued by the Republic of Mozambique. On January 3, 2019, the EDNY unsealed an indictment against several individuals in connection with the matter, including three former Credit Suisse employees. On May 20, 2019, July 19, 2019 and September 6, 2019, the three former employees pleaded guilty to accepting improper personal benefits in connection with financing transactions carried out with two Mozambique state enterprises.

On October 19, 2021, Credit Suisse reached settlements with the DOJ, the US Securities Exchange Commission (SEC), the UK Financial Conduct Authority (FCA) and FINMA to resolve inquiries by these agencies. Credit Suisse Group AG entered into a three-year Deferred Prosecution Agreement (DPA) with the DOJ in connection with the criminal information charging Credit Suisse Group AG with conspiracy to commit wire fraud and consented to the entry of a Cease and Desist Order by the SEC. Under the terms of the DPA, Credit Suisse Group AG will continue its compliance enhancement and remediation efforts, report to the DOJ on those efforts for three years and undertake additional measures as outlined in the DPA. Credit Suisse also agreed to pay a net penalty to the DOJ of approximately USD 175.5 million, which was payable following the conclusion of the sentencing process. If Credit Suisse Group AG adheres to the DPA's conditions, the charges will be dismissed at the end of the DPA's three-year term. In addition, CSSEL entered into a Plea Agreement and pleaded guilty to one count of conspiracy to violate the US federal wire fraud statute. CSSEL will be bound by the same compliance, remediation and reporting obligations as Credit Suisse Group AG under the DPA. Under the terms of the SEC Cease and Desist Order, Credit Suisse paid a civil penalty of USD 65 million and approximately USD 34 million in disgorgement and pre-judgment interest in connection with violations of the US Securities Exchange Act of 1934 (Exchange Act) and the US Securities Act of 1933 (Securities Act) anti-fraud provisions (Exchange Act Section 10(b) and Rule 10b-5 thereunder and Securities Act Sections 17(a)(1), (2) and (3)) as well as the Exchange Act internal accounting controls and books and records provisions (Sections 13(b)(2)(A) and 13(b)(2)(B)). The

total monetary sanctions paid to the DOJ and SEC, taking into account various credits and offsets, was approximately USD 275 million. Under the terms of the resolution with the DOJ, Credit Suisse was required to pay restitution to any eligible investors in the 2016 Eurobonds issued by the Republic of Mozambique. At a July 22, 2022 hearing, the EDNY approved the joint restitution proposal of the DOJ and Credit Suisse, under which Credit Suisse paid USD 22.6 million in restitution to eligible investors. At the hearing Credit Suisse was also ordered to pay, and subsequently paid, the USD 175.6 million net penalty set out in the DPA and Plea Agreement described above.

In the resolution with the FCA, CSSEL, Credit Suisse International (CSI) and Credit Suisse AG, London Branch agreed that, in respect of these transactions with Mozambique, its UK operations had failed to conduct business with due skill, care and diligence and to take reasonable care to organize and control its affairs responsibly and effectively, with adequate risk management systems. Credit Suisse paid a penalty of approximately USD 200 million and has also agreed with the FCA to forgive USD 200 million of debt owed to Credit Suisse by Mozambique.

FINMA also entered a decree announcing the conclusion of its enforcement proceeding, finding that Credit Suisse AG and Credit Suisse (Schweiz) AG violated the duty to file a suspicious activity report in Switzerland, and Credit Suisse Group AG did not adequately manage and address the risks arising from specific sovereign lending and related securities transactions, and ordering the bank to remediate certain deficiencies. FINMA also arranged for certain existing transactions to be reviewed by the same independent third party on the basis of specific risk criteria, and required enhanced disclosure of certain sovereign transactions until all remedial measures have been satisfactorily implemented. Credit Suisse has completed implementation of the measures required under the FINMA decree. An independent third party appointed by FINMA is reviewing the implementation and effectiveness of these measures.

On February 27, 2019, certain Credit Suisse entities, the same three former employees, and several other unrelated entities were sued in the English High Court by the Republic of Mozambique. On January 21, 2020, the Credit Suisse entities filed their defense. On June 26, 2020, the Credit Suisse entities filed third-party claims against the project contractor and several Mozambique officials. The Republic of Mozambique filed an updated Particulars of Claim on October 27, 2020, and the Credit Suisse entities filed their amended defense and counter-claim on January 15, 2021. Following the announcement of the global regulatory resolution on October 19, 2021, Credit Suisse filed a re-amended defense on December 24, 2021. The Republic of Mozambique seeks a declaration that the sovereign guarantee issued in connection with the ProIndicus loan syndication arranged and funded, in part, by a Credit Suisse subsidiary is void and also seeks damages alleged to have arisen in connection with the transactions involving ProIndicus and EMATUM, and a transaction in which Credit Suisse had no involvement with Mozambique Asset Management S.A. Also on January 15, 2021,

the project contractor filed a cross claim against the Credit Suisse entities (as well as the three former Credit Suisse employees and various Mozambican officials) seeking an indemnity and/ or contribution in the event that the contractor is found liable to the Republic of Mozambique. On August 4, 2022, the Republic of Mozambique filed an updated Particulars of Claim addressing Credit Suisse's October 2021 resolutions with various regulatory and enforcement authorities, and framing its claim for consequential damages. On September 23, 2022, Credit Suisse filed its Re-Amended Defense in response. The English High Court has scheduled trial to begin in October 2023.

On April 27, 2020, Banco Internacional de Moçambique (BIM), a member of the ProIndicus syndicate, brought a claim against certain Credit Suisse entities seeking, contingent on the Republic of Mozambique's claim, a declaration that Credit Suisse is liable to compensate it for alleged losses suffered as a result of any invalidity of the sovereign guarantee. The Credit Suisse entities filed their defense to this claim on August 28, 2020, to which BIM replied on October 16, 2020. Credit Suisse filed an amended defense on December 15, 2021, and BIM filed its amended reply on January 5, 2022.

On December 17, 2020, two members of the ProIndicus syndicate, Beauregarde Holdings LLP and Orobica Holdings LLC (B&O), filed a claim against certain Credit Suisse entities in respect of their interests in the ProIndicus loan, seeking unspecified damages stemming from the alleged loss suffered due to their reliance on representations made by Credit Suisse to the syndicate lenders. Credit Suisse filed their defense to this claim on February 24, 2021. On February 4, 2022, B&O filed an amended claim, and Credit Suisse filed an amended defense on February 18, 2022.

On June 3, 2021, United Bank for Africa PLC (UBA), a member of the ProIndicus syndicate, brought a claim against certain Credit Suisse entities seeking, contingent on the Republic of Mozambique's claim, a declaration that Credit Suisse is liable to compensate it for alleged losses suffered as a result of any invalidity of the sovereign guarantee. The Credit Suisse entities filed their defense to this claim on July 1, 2021 and filed an amended defense on December 15, 2021, and UBA filed its amended reply on January 5, 2022.

On February 23, 2022, Prinvest Holding SAL (Prinvest), the parent company of certain entities involved in the Mozambique transactions, and its owner Iskandar Safa brought a defamation claim in a Lebanese court against CSSEL and Credit Suisse Group AG. The lawsuit alleges damage to the claimants' professional reputation in Lebanon due to statements that were allegedly made by Credit Suisse in documents relating to the October 2021 settlements with global regulators. On August 18, 2022, the parties agreed to a stay of the proceedings until the date of the final judicial determination of the English High Court litigation, including any appeals, and on August 23, 2022, the parties filed an application for a stay with the Lebanese Court.

On November 2, 2022, Jean Boustani, a Prinvest employee who was the lead negotiator on behalf of Prinvest in relation to the Mozambique transactions, brought a defamation claim in a Lebanese court against Credit Suisse Group AG and CSSEL. The lawsuit makes substantially the same allegations as the claim described immediately above.

Cross-border private banking matters

Credit Suisse offices in various locations, including the UK, the Netherlands and France, have been contacted by regulatory and law enforcement authorities that are seeking records and information concerning investigations into our historical private banking services on a cross-border basis and in part through our local branches and banks. A similar inquiry has been opened in Belgium. Credit Suisse has conducted a review of these issues, the UK aspects of which have been closed with no action being taken against the bank, and is continuing to cooperate with the authorities. Credit Suisse applies a strict zero tolerance policy on tax evasion.

On October 21, 2022, Credit Suisse AG entered into a settlement agreement with the Parquet National Financier to resolve a French investigation into alleged aiding and abetting of tax fraud, aggravated money laundering and illegal cross border market access. As part of the settlement, Credit Suisse AG agreed to pay a public interest fine of EUR 123 million, comprising EUR 65.6 million in disgorgement of profits and an additional amount of EUR 57.4 million. In addition, Credit Suisse AG agreed to pay EUR 115 million to the French state as damages. In prior quarters, Credit Suisse had taken litigation provisions totaling CHF 159 million related to this matter. On October 24, 2022, the competent French judge approved this agreement. No admission of wrongdoing was required in connection with the agreement, including no recognition of criminal liability by Credit Suisse.

ETN-related litigation

XIV litigation

Since March 14, 2018, three class action complaints were filed in the SDNY on behalf of a putative class of purchasers of VelocityShares Daily Inverse VIX Short Term Exchange Traded Notes linked to the S&P 500 VIX Short-Term Futures Index due December 4, 2030 (XIV ETNs). On August 20, 2018, plaintiffs filed a consolidated amended class action complaint, naming Credit Suisse Group AG and certain affiliates and executives, which asserts claims for violations of Sections 9(a)(4), 9(f), 10(b) and 20(a) of the Exchange Act and Rule 10b-5 thereunder and Sections 11 and 15 of the US Securities Act of 1933 and alleges that the defendants are responsible for losses to investors following a decline in the value of XIV ETNs on February 5, 2018. Defendants moved to dismiss the amended complaint on November 2, 2018. On September 25, 2019, the SDNY granted defendants' motion to dismiss and dismissed with prejudice all claims against the defendants. On October 18, 2019, plaintiffs filed a notice of appeal. On April 27, 2021, the Second Circuit issued

an order affirming in part and vacating in part the SDNY's September 25, 2019 decision granting defendants' motion to dismiss with prejudice. On July 1, 2022, plaintiffs filed a motion for class certification.

On June 3, 2019, Credit Suisse AG, an affiliate and executives were named in a separate individual action brought in the SDNY by a purchaser of XIV ETNs, which asserts claims similar to those brought in the consolidated class action complaint as well as additional claims under New York and Pennsylvania state law. On March 30, 2022, the SDNY issued an order granting in part and denying in part defendants' motion to dismiss.

DGAZ litigation

On January 6, 2022, Credit Suisse AG was named in a class action complaint filed in the SDNY brought on behalf of a putative class of short sellers of VelocityShares 3x Inverse Natural Gas Exchange Traded Notes linked to the S&P GSCI Natural Gas Index ER due February 9, 2032 (DGAZ ETNs). The complaint asserts claims for violations of Section 10(b) of the Exchange Act and Rule 10b-5 thereunder and alleges that Credit Suisse is responsible for losses suffered by short sellers following a June 2020 announcement that Credit Suisse would delist and suspend further issuances of the DGAZ ETNs. On July 11, 2022, Credit Suisse AG filed a motion to dismiss.

TWINT

On November 13, 2018, COMCO announced an investigation into several Swiss financial institutions, including UBS Switzerland AG, Credit Suisse (Schweiz) AG, Aduno Holding AG, PostFinance AG, and Swisscard AECS GmbH. According to COMCO, its investigation is focused on whether these institutions entered into an agreement to boycott mobile payment solutions of international providers, including Apple Pay and Samsung Pay, in order to protect TWINT, their own Swiss payment solution.

SWM

CSI was the defendant in a lawsuit brought by the German public utility company Stadtwerke München GmbH (SWM) in a German court, in connection with a series of interest rate swaps entered into between 2008 and 2012. The claimant alleged breach of an advisory duty to provide both investor- and investment-specific advice, including in particular a duty to disclose the initial mark-to-market value of the trades at inception. In March 2022, after the parties reached a settlement, for which Credit Suisse was fully reserved, the court discontinued the lawsuit.

Bulgarian former clients matter

Credit Suisse AG has been responding to an investigation by the Swiss Office of the Attorney General (SOAG) concerning the diligence and controls applied to a historical relationship with Bulgarian former clients who are alleged to have laundered funds through Credit Suisse AG accounts. On December 17, 2020,

the SOAG brought charges against Credit Suisse AG and other parties. Credit Suisse AG believes its diligence and controls complied with applicable legal requirements and intends to defend itself vigorously. The trial in the Swiss Federal Criminal Court took place in the first quarter of 2022. On June 27, 2022, Credit Suisse AG was convicted in the Swiss Federal Criminal Court of certain historical organizational inadequacies in its anti-money laundering framework and ordered to pay a fine of CHF 2 million. In addition, the court seized certain client assets in the amount of approximately CHF 12 million and ordered Credit Suisse AG to pay a compensatory claim in the amount of approximately CHF 19 million. On July 5, 2022, Credit Suisse AG appealed the decision to the Swiss Federal Court of Appeals.

SCFF

Credit Suisse has received requests for documents and information in connection with inquiries, investigations, enforcement and other actions relating to the supply chain finance funds (SCFF) matter by FINMA, the FCA and other regulatory and governmental agencies. The Luxembourg Commission de Surveillance du Secteur Financier is reviewing the matter through a third party. Credit Suisse is cooperating with these authorities.

On February 28, 2023, FINMA announced the conclusion of its enforcement proceedings against Credit Suisse in connection with the SCFF matter. In its order, FINMA reported that Credit Suisse had seriously breached applicable Swiss supervisory laws in this context with regard to risk management and appropriate operational structures. While FINMA recognized that Credit Suisse has already taken extensive organizational measures based on its own investigation into the SCFF matter, particularly to strengthen its governance and control processes, and FINMA is supportive of these measures, the regulator has ordered certain additional remedial measures. These include a requirement that the most important (approximately 500) business relationships must be reviewed periodically and holistically at the Executive Board level, in particular for counterparty risks, and that Credit Suisse must set up a document defining the responsibilities of approximately 600 of its highest-ranking managers. FINMA will appoint an audit officer to assess compliance with these supervisory measures. Separate from the enforcement proceeding regarding Credit Suisse, FINMA has opened four enforcement proceedings against former managers of Credit Suisse.

Certain civil actions have been filed by fund investors and other parties against Credit Suisse and/or certain officers and directors in various jurisdictions, which make allegations including mis-selling and breaches of duties of care, diligence and other fiduciary duties. Certain investors and other private parties have also filed criminal complaints against Credit Suisse and other parties in connection with this matter.

As this matter develops, Credit Suisse may become subject to additional litigation and regulatory inquiries, investigations and actions.

Archehos

Credit Suisse has received requests for documents and information in connection with inquiries, investigations and/or actions relating to Credit Suisse's relationship with Archehos Capital Management (Archehos), including from FINMA (assisted by a third party appointed by FINMA), the DOJ, the SEC, the US Federal Reserve, the US Commodity Futures Trading Commission (CFTC), the US Senate Banking Committee, the Prudential Regulation Authority, the FCA, COMCO, the Hong Kong Competition Commission and other regulatory and governmental agencies. Credit Suisse is cooperating with the authorities in these matters.

On November 23, 2022, the US Federal Reserve communicated its intention to progress its investigation of Credit Suisse in relation to Archehos through a resolution that includes monetary penalties and certain remedial measures. The resolution of this matter is subject to ongoing dialogue with the US Federal Reserve and other regulators.

On April 16, 2021, Credit Suisse Group AG and certain current and former executives were named in a putative class action complaint filed in the SDNY by a holder of Credit Suisse American Depositary Receipts, asserting claims for violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 thereunder, alleging that defendants violated US securities laws by making material misrepresentations and omissions regarding Credit Suisse's risk management practices, including with respect to the Archehos matter. On September 16, 2022, the parties reached an agreement to settle all claims. On December 23, 2022, the court entered an order granting preliminary approval to the parties' agreement to settle all claims. The settlement remains subject to final court approval.

Additional civil actions relating to Credit Suisse's relationship with Archehos have been filed against Credit Suisse and/or certain officers and directors, including claims for breaches of fiduciary duties.

As this matter develops, Credit Suisse may become subject to additional litigation and regulatory inquiries, investigations, and actions.

Communications recordkeeping matter

On September 27, 2022, the SEC and the CFTC announced the entry of orders filing and settling charges with several financial institutions, including Credit Suisse, in connection with civil investigations concerning compliance with records preservation requirements relating to business communications sent over unapproved electronic messaging channels. The SEC found that CSS LLC failed to maintain and preserve off-channel communications its employees sent and received on personal devices related to the broker-dealer's business and failed to implement policies and procedures designed to prohibit such communications, thereby leading to CSS LLC's failure to reasonably supervise its employees. CSS LLC paid a civil monetary penalty of USD 125 million to the SEC. The CFTC found similar record-keeping and supervisory failures for CSS LLC, as a futures commission merchant, and CSI, as a swap dealer. CSS LLC and CSI paid a combined civil monetary penalty of USD 75 million to the CFTC. In addition to the monetary penalties, Credit Suisse was ordered to cease and desist from future violations of the relevant recordkeeping provisions, was censured, admitted to the facts in the SEC and CFTC orders and agreed to certain undertakings, including, among other things, the use of an independent compliance consultant to review the bank's policies and procedures relating to the retention of electronic communications found on personal devices and the related framework for addressing non-compliance by employees.

41 Significant subsidiaries and equity method investments

The entities presented in the table below generally include subsidiaries with total assets over CHF 100 million or net income attributable to shareholders over CHF 10 million. Also included are entities which are deemed regionally significant or otherwise relevant from an operational perspective.

The Group and the Bank have issued full, unconditional and several guarantees of Credit Suisse (USA), Inc.'s outstanding SEC-registered debt securities, which as of December 31, 2022 consisted of a single outstanding issuance with a balance of USD 742 million maturing in July 2032.

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Significant subsidiaries

Company name	Domicile	Currency	Nominal capital in million	Equity interest in%
End of 2022				
Credit Suisse Group AG				
Credit Suisse AG	Zurich, Switzerland	CHF	4,399.7	100
Credit Suisse Insurance Linked Strategies Ltd	Zurich, Switzerland	CHF	0.2	100
Credit Suisse (Poland) Sp. z o.o	Warsaw, Poland	PLN	20.0	100
Credit Suisse Services AG	Zurich, Switzerland	CHF	1.0	100
Credit Suisse Trust AG	Zurich, Switzerland	CHF	5.0	100
Credit Suisse Trust Holdings Limited	St. Peter Port, Guernsey	GBP	17.0	100
CS LP Holding AG	Zug, Switzerland	CHF	0.1	100
Inreska Limited	St. Peter Port, Guernsey	GBP	3.0	100
Savoy Hotel Baur en Ville AG	Zurich, Switzerland	CHF	7.5	88
Credit Suisse AG				
Alpine Securitization LTD	George Town, Cayman Islands	USD	0.0	100
Banco Credit Suisse (Brasil) S.A.	São Paulo, Brazil	BRL	53.6	100
Banco Credit Suisse (Mexico), S.A.	Mexico City, Mexico	MXN	3,591.7	100
Banco de Investimentos Credit Suisse (Brasil) S.A.	São Paulo, Brazil	BRL	164.8	100
Bank-now AG	Horgen, Switzerland	CHF	30.0	100
Boston Re Ltd.	Hamilton, Bermuda	USD	2.0	100
Casa de Bolsa Credit Suisse (Mexico), S.A. de C.V.	Mexico City, Mexico	MXN	274.0	100
Column Financial, Inc.	Wilmington, United States	USD	0.0	100
Credit Suisse (Australia) Limited	Sydney, Australia	AUD	34.1	100
Credit Suisse (Brasil) S.A. Corretora de Titulos e Valores Mobiliarios	São Paulo, Brazil	BRL	98.4	100
Credit Suisse (Deutschland) Aktiengesellschaft	Frankfurt, Germany	EUR	130.0	100
Credit Suisse (Hong Kong) Limited	Hong Kong, China	HKD	8,192.9	100
Credit Suisse (Italy) S.p.A.	Milan, Italy	EUR	170.0	100
Credit Suisse (Luxembourg) S.A.	Luxembourg, Luxembourg	CHF	230.9	100
Credit Suisse (Qatar) LLC	Doha, Qatar	USD	29.0	100
Credit Suisse (Schweiz) AG	Zurich, Switzerland	CHF	100.0	100
Credit Suisse (Singapore) Limited	Singapore, Singapore	SGD	470.8	100
Credit Suisse (UK) Limited	London, United Kingdom	GBP	245.2	100
Credit Suisse (USA), Inc.	Wilmington, United States	USD	0.0	100
Credit Suisse Asset Management (Schweiz) AG	Zurich, Switzerland	CHF	0.2	100
Credit Suisse Asset Management (UK) Holding Limited	London, United Kingdom	GBP	144.2	100
Credit Suisse Asset Management International Holding Ltd	Zurich, Switzerland	CHF	20.0	100
Credit Suisse Asset Management Investments Ltd	Zurich, Switzerland	CHF	0.1	100
Credit Suisse Asset Management Limited	London, United Kingdom	GBP	45.0	100
Credit Suisse Asset Management Real Estate GmbH	Frankfurt, Germany	EUR	6.1	100
Credit Suisse Asset Management, LLC	Wilmington, United States	USD	1,215.9	100
Credit Suisse Atlas I Investments (Luxembourg) S.à r.l.	Luxembourg, Luxembourg	USD	0.0	100
Credit Suisse Bank (Europe), S.A.	Spain, Madrid	EUR	18.0	100
Credit Suisse Brazil (Bahamas) Limited	Nassau, Bahamas	USD	70.0	100
Credit Suisse Business Analytics (India) Private Limited	Mumbai, India	INR	40.0	100
Credit Suisse Capital LLC	Wilmington, United States	USD	1,702.3	100
Credit Suisse Entrepreneur Capital AG	Zurich, Switzerland	CHF	15.0	100
Credit Suisse Equities (Australia) Limited	Sydney, Australia	AUD	62.5	100
Credit Suisse Finance (India) Private Limited	Mumbai, India	INR	1,050.1	100
Credit Suisse First Boston (Latam Holdings) LLC	George Town, Cayman Islands	USD	28.8	100
Credit Suisse First Boston Finance B.V.	Amsterdam, The Netherlands	EUR	0.0	100

Significant subsidiaries (continued)

Company name	Domicile	Currency	Nominal capital in million	Equity interest in%
Credit Suisse First Boston Mortgage Capital LLC	Wilmington, United States	USD	6.6	100
Credit Suisse Fund Management S.A.	Luxembourg, Luxembourg	CHF	0.3	100
Credit Suisse Fund Services (Luxembourg) S.A.	Luxembourg, Luxembourg	CHF	1.5	100
Credit Suisse Funds AG	Zurich, Switzerland	CHF	7.0	100
Credit Suisse Hedging-Griffo Corretora de Valores S.A.	São Paulo, Brazil	BRL	29.6	100
Credit Suisse Holding Europe (Luxembourg) S.A.	Luxembourg, Luxembourg	CHF	32.6	100
Credit Suisse Holdings (Australia) Limited	Sydney, Australia	AUD	3.0	100
Credit Suisse Holdings (USA), Inc.	Wilmington, United States	USD	0.0	100
Credit Suisse International	London, United Kingdom	USD	11,366.2	100 ¹
Credit Suisse Istanbul Menkul Degerler A.S.	Istanbul, Türkiye	TRY	10.0	100
Credit Suisse Life (Bermuda) Ltd.	Hamilton, Bermuda	USD	0.5	100
Credit Suisse Loan Funding LLC	Wilmington, United States	USD	1.7	100
Credit Suisse Management LLC	Wilmington, United States	USD	891.4	100
Credit Suisse Saudi Arabia	Riyadh, Saudi Arabia	SAR	737.5	100
Credit Suisse Securities (Canada), Inc.	Toronto, Canada	CAD	3.4	100
Credit Suisse Securities (Europe) Limited	London, United Kingdom	USD	3,859.3	100
Credit Suisse Securities (Hong Kong) Limited	Hong Kong, China	HKD	2,080.9	100
Credit Suisse Securities (India) Private Limited	Mumbai, India	INR	2,214.7	100
Credit Suisse Securities (Japan) Limited	Tokyo, Japan	JPY	78,100.0	100
Credit Suisse Securities (Malaysia) Sdn. Bhd.	Kuala Lumpur, Malaysia	MYR	100.0	100
Credit Suisse Securities (Singapore) Pte. Limited	Singapore, Singapore	SGD	30.0	100
Credit Suisse Securities (Thailand) Limited	Bangkok, Thailand	THB	500.0	100
Credit Suisse Securities (USA) LLC	Wilmington, United States	USD	1,200.7	100
Credit Suisse Services (India) Private Limited	Pune, India	INR	0.1	100
Credit Suisse Services (USA) LLC	Wilmington, United States	USD	15.4	100
CS Non-Traditional Products Ltd.	Nassau, Bahamas	USD	0.1	100
CSSEL Guernsey Bare Trust	St. Peter Port, Guernsey	USD	0.0	100
DLJ Mortgage Capital, Inc.	Wilmington, United States	USD	0.0	100
Fides Treasury Services AG	Zurich, Switzerland	CHF	2.0	100
JSC “Bank Credit Suisse (Moscow)”	Moscow, Russia	RUB	460.0	100
Lime Residential, Ltd.	Nassau, Bahamas	USD	0.0	100
LLC “Credit Suisse Securities (Moscow)”	Moscow, Russia	RUB	727.0	100
Merban Equity AG	Zug, Switzerland	CHF	0.1	100
Select Portfolio Servicing, Inc.	Utah, United States	USD	0.0	100
Solar Investco II Ltd.	George Town, Cayman Islands	USD	0.0	100
SP Holding Enterprises Corp.	Wilmington, United States	USD	0.0	100
SR Lease Co VI Ltd.	George Town, Cayman Islands	USD	0.0	100
PT Credit Suisse Sekuritas Indonesia	Jakarta, Indonesia	IDR	235,000.0	99
Credit Suisse Hypotheken AG	Zurich, Switzerland	CHF	0.1	98
Credit Suisse Securities (China) Limited	Beijing, China	CNY	1,089.0	51

¹ 98% of voting rights and 98% of equity interest held by Credit Suisse AG.

Significant equity method investments

Company name	Domicile	Equity interest in%
Credit Suisse Group AG & Credit Suisse AG		
Swisscard AECS GmbH	Horgen, Switzerland	50
ICBC Credit Suisse Asset Management Co., Ltd.	Beijing, China	20
York Capital Management Global Advisors, LLC	New York, United States	5 ¹
Holding Verde Empreendimentos e Participações S.A.	São Paulo, Brazil	0 ¹

¹ The Group holds a significant noncontrolling interest.

402 Consolidated financial statements – Credit Suisse Group

Condensed statements of operations and comprehensive income

in	2022	2021	2020
Condensed statements of operations and comprehensive income (CHF million)			
Dividends from subsidiaries	632	12	24
of which from bank	570	10	10
of which from non-bank	62	2	14
Interest and dividend income	2,618	2,124	1,633
of which from subsidiaries and other affiliates	2,618	2,124	1,633
Interest expense	(2,708)	(2,173)	(1,649)
of which from subsidiaries and other affiliates	10	54	39
Net interest income	542	(37)	8
Commissions and fees	3	6	18
Trading revenues	(3)	(6)	12
of which from subsidiaries and other affiliates	(2,168)	(802)	550
Other revenues	63	36	78
of which from subsidiaries and other affiliates	61	36	77
Net revenues	605	(1)	116
Compensation and benefits	56	25	84
General and administrative expenses	82	74	62
Commission expenses	0	0	2
Total other operating expenses	82	74	64
Total operating expenses	138	99	148
Income/(loss) before taxes	467	(100)	(32)
Income tax expense/(benefit)	0	(4)	(5)
Undistributed earnings/(loss) of subsidiaries and other affiliates	(7,760)	(1,554) ¹	2,696
Net income/(loss)	(7,293)	(1,650)	2,669
Other comprehensive income/(loss), net of tax	4,476	1,824	(2,881)
Comprehensive income/(loss)	(2,817)	174	(212)

1 Included a goodwill impairment charge of CHF 1,623 million.

Condensed balance sheets

end of	2022	2021
Assets (CHF million)		
Cash and due from banks	222	143
of which from subsidiaries and other affiliates	222	143
Interest-bearing deposits with banks	2,079	5,948
of which from subsidiaries and other affiliates	2,075	5,944
Investment securities	60,814	55,659
of which from subsidiaries and other affiliates	60,814	55,659
Investments in subsidiaries and other affiliates	52,228	51,452
Other assets	1,085	831
of which from subsidiaries and other affiliates	1,034	827
Total assets	116,428	114,033
Liabilities and equity (CHF million)		
Due to banks	2,518	2,743
of which from subsidiaries and other affiliates	2,518	2,743
Trading liabilities	41	0
Short-term borrowings	0	4,700
of which from subsidiaries and other affiliates	0	4,700
Long-term debt	67,798	61,949
Other liabilities	942	687
of which from subsidiaries and other affiliates	27	7
Total liabilities	71,299	70,079
Total shareholders' equity	45,129	43,954
Total liabilities and equity	116,428	114,033

Condensed statements of cash flows

in	2022	2021	2020
Operating activities (CHF million)			
Net cash provided by/(used in) operating activities	(166)	(286)	(10)
Investing activities (CHF million)			
(Increase)/decrease in interest-bearing deposits with banks	3,693	(5,772)	1
Purchase of investment securities	(16,101)	(2,995)	(12,644)
Maturities of investment securities	4,926	56	0
Investments in subsidiaries and other investments	(4,059)	(1,121)	0
Proceeds from sale of other investments	0	9	0
Capital expenditures for premises and equipment and other intangible assets	(6)	0	0
Net cash provided by/(used in) investing activities	(11,547)	(9,823)	(12,643)
Financing activities (CHF million)			
Increase/(decrease) in due to banks and customer deposits	(225)	301	155
Increase/(decrease) in short-term borrowings	(4,700)	0	0
Issuances of long-term debt	17,719	8,730	13,644
Repayments of long-term debt	(4,926)	(56)	0
Issuances of common shares	3,914	1,661	0
Sale/(repurchase) of treasury shares	212	(473)	(462)
Dividends paid	(280)	(257)	(716)
Other, net	20	(1)	60
Net cash provided by/(used in) financing activities	11,734	9,905	12,681
Effect of exchange rate changes on cash and due from banks (CHF million)			
Effect of exchange rate changes on cash and due from banks	58	70	(28)
Net increase/(decrease) in cash and due from banks (CHF million)			
Net increase/(decrease) in cash and due from banks	79	(134)	0
Cash and due from banks at beginning of period ¹	143	277	277
Cash and due from banks at end of period ¹	222	143	277

¹ Includes restricted cash.

43 Significant valuation and income recognition differences between US GAAP and Swiss GAAP banking law (true and fair view)

The Group's consolidated financial statements have been prepared in accordance with US GAAP.

FINMA requires Swiss-domiciled banks which present their financial statements under either US GAAP or International Financial Reporting Standards (IFRS) to provide a narrative explanation of the major differences between Swiss GAAP banking law (true and fair view) and its primary accounting standard.

The principal provisions of the Swiss Ordinance on Banks and Savings Banks (Banking Ordinance), the Swiss Financial Market Supervisory Authority's Accounting Ordinance (FINMA Accounting Ordinance) and the FINMA circular 2020/1, "Accounting – banks", governing financial reporting for banks (Swiss GAAP) differ in certain aspects from US GAAP. The following are the major differences:

> Refer to "Note 1 – Summary of significant accounting policies" for a detailed description of the Group's accounting policies.

Scope of consolidation

Under Swiss GAAP, majority-owned subsidiaries that are not considered long-term investments or do not operate in the core business of the Group are either accounted for as financial investments or as equity method investments. US GAAP has no such exception relating to the consolidation of majority-owned subsidiaries.

Investments in securities

Under Swiss GAAP, classification and measurement of investments in securities depends on the nature of the investment.

Non-consolidated participations

Under US GAAP, equity securities where the company has no significant influence and which do not have a readily determinable fair value are measured in accordance with the NAV practical expedient, or by using the measurement alternative or at fair value.

Under Swiss GAAP, investments in equity securities where the company has no significant influence and which are held with the intention of a permanent investment or which are investments in financial industry infrastructure are included in participations irrespective of the percentage ownership of voting shares held. Participations are initially recognized at historical cost and tested for impairment at least annually. The fair value option is not allowed for participations.

Under Swiss GAAP, participations held by a company are tested for impairment on the level of each individual participation. An impairment is recorded if the carrying value of a participation exceeds its fair value. Should the fair value of an impaired participation recover in subsequent periods and such recovery is considered sustainable, the impairment from prior periods can be reversed up to the fair value but not exceeding the historical cost basis. A reversal of an impairment is recorded as extraordinary income in the statements of income.

Available-for-sale debt securities

Under US GAAP, available-for-sale debt securities are valued at fair value. Unrealized gains and losses due to fluctuations in fair value (including foreign exchange) are not recorded in the consolidated statements of operations but included net of tax in AOCI, which is part of total shareholders' equity. Credit-related impairments may have to be recognized in the consolidated statements of operations if the fair value of an individual debt security decreases below its amortized cost basis due to credit-related factors.

Under Swiss GAAP, available-for-sale securities are accounted for at the lower of amortized cost or market with valuation reductions and recoveries due to market fluctuations recorded in other ordinary expenses and income, respectively. Foreign exchange gains and losses are recognized in net income/(loss) from trading activities and fair value option.

Non-marketable equity securities

Under US GAAP, equity securities which do not have a readily determinable fair value are measured in accordance with the NAV practical expedient, or by using the measurement alternative or at fair value.

Under Swiss GAAP, non-marketable equity securities where the company has no intent to hold the securities permanently are carried at the lower of cost or market.

Allowances and provisions for credit losses

Under US GAAP, allowances and provisions for credit losses on financial instruments are estimated based on a CECL model. The credit loss requirements apply to financial assets measured at amortized cost as well as off-balance sheet credit exposures, such as irrevocable loan commitments, credit guarantees and similar instruments. The credit loss requirements are based on a forward-looking, lifetime CECL model by incorporating historical experience, current conditions and reasonable and supportable forecasts of future economic conditions available as of the reporting date.

Under Swiss GAAP, the same impairment model and methodology is applied as under US GAAP. Differences between the two GAAPs result for items which are not measured at amortized cost under US GAAP and therefore not in scope of CECL under US GAAP, but that have to be measured at amortized cost under Swiss GAAP and are therefore in scope of CECL under Swiss GAAP. Such differences in CECL measurement mainly result from loans, irrevocable loan commitments and financial guarantees which are FVO elected under US GAAP and measured at amortized cost under Swiss GAAP.

Fair value option

Unlike US GAAP, Swiss GAAP generally does not allow the fair value option concept that creates an optional alternative measurement treatment for certain non-trading financial assets and liabilities, guarantees and commitments. The fair value option permits the use of fair value for initial and subsequent measurement with changes in fair value recorded in the consolidated statements of operations.

For issued structured products that meet certain conditions, fair value measurement can be applied. The related changes in fair value of both the embedded derivative and the host contract are recorded in trading revenues, except for fair value adjustments relating to own credit that cannot be recognized in the consolidated statements of income. Impacts of changes in own credit spreads are recognized in the compensation accounts which are either recorded in other assets or other liabilities.

Derivative financial instruments used for fair value hedging

Under US GAAP, for fair value hedges, the carrying value of the underlying hedged items is adjusted to the change in the fair value of the hedged risk. Changes in the fair value of the related designated derivatives are recorded in the same line item of the consolidated statements of operations as the change in fair value of the hedged risk for the respective assets or liabilities.

Under Swiss GAAP, the carrying value of hedged items is not adjusted. The amount representing the change in fair value of the hedged item with regard to the hedged risk is recorded in the compensation account included in other assets or other liabilities.

Derivative financial instruments used for cash flow hedging

Under US GAAP, the change in the fair value of a designated derivative of a cash flow hedge is reported in AOCI.

Under Swiss GAAP, the change in the fair value of a designated derivative of a cash flow hedge is recorded in the compensation account included in other assets or other liabilities.

Derecognition of financial instruments

Under US GAAP, financial instruments are only derecognized if the transaction meets the following criteria: (i) the financial asset has been legally isolated from the transferor, (ii) the transferee has the right to repledge or resell the transferred asset, and (iii) the transferor does not maintain effective control over the transferred asset.

Under Swiss GAAP, a financial instrument is derecognized when the economic control has been transferred from the seller to the buyer. A party which has the controlling ability to receive the future returns from the financial instrument and the obligation to absorb the risk of the financial instrument is deemed to have economic control over a financial instrument.

Debt issuance costs

Under US GAAP, debt issuance costs are presented as a direct deduction from the carrying amount of the related debt.

Under Swiss GAAP, debt issuance costs are reported as a balance sheet asset in accrued income and prepaid expenses.

Operating leases – lessee arrangements

Under US GAAP, at commencement of an operating lease, the lessee recognizes a lease liability for future lease payments and a right-of-use asset which reflects the future benefits from the lease contract. The initial lease liability equals the present value of the future lease payments; amounts paid upfront are not included. The right-of-use asset equals the sum of the initial lease liability, initial direct costs and prepaid lease payments, with lease incentives received deducted. Operating lease costs, which include amortization and an interest component, are recognized over the remaining lease term on a straight-line basis. If the reporting entity permanently vacates premises and sub-leases a leased asset to another party at a loss, an impairment is recognized on the right-of-use asset. The impairment is determined as the difference between the carrying value of the right-of-use asset and the present value of the expected sub-lease income over the sub-lease term.

Under Swiss GAAP, at commencement of an operating lease, no right-of-use assets and lease liabilities are recognized on the balance sheet of the lessee. For the calculation of the periodic lease expenses, initial direct costs, lease incentives and prepaid lease payments are considered and the total cost of a lease contract is expensed on a straight-line basis over the lease term. If the reporting entity permanently vacates premises, a provision for future payments under the lease contract is recorded, net of expected sub-lease income.

Goodwill amortization

Under US GAAP, goodwill is not amortized but must be tested for impairment annually or more frequently if an event or change in circumstances indicates that the goodwill may be impaired.

Under Swiss GAAP, goodwill is amortized over its useful life, generally not exceeding five years, except for justified cases where a maximum useful life of up to ten years is acceptable. In addition, goodwill is tested at least annually for impairment.

Amortization of intangible assets

Under US GAAP, intangible assets with indefinite lives are not amortized but are tested for impairment annually or more frequently if an event or change in circumstances indicates that the asset may be impaired.

Under Swiss GAAP, intangible assets are amortized over a useful life, up to a maximum of five years, in justified cases up to a maximum of ten years. In addition, these assets are tested at least annually for impairment.

Guarantees

US GAAP requires all guarantees to be initially recognized at fair value. Upon issuance of a guarantee, the guarantor is required to recognize a liability that reflects the initial fair value; simultaneously, a receivable is recorded to reflect the future guarantee fee income over the entire life of the guarantee.

Under Swiss GAAP, only accrued or prepaid guarantee fees are recorded on the balance sheet. No guarantee liability and receivable for future guarantee fees are recorded upon issuance of a guarantee.

Loan origination fees and costs

US GAAP requires the deferral of fees received upfront and direct costs incurred in connection with the origination of loans not held under the fair value option.

Under Swiss GAAP, only upfront payments or fees that are considered interest-related components are deferred (e.g., premiums and discounts). Fees received from the borrower which are considered service-related fees such as commitment fees, structuring fees and arrangement fees are immediately recognized in commission income.

Extraordinary income and expenses

Unlike US GAAP, Swiss GAAP does report certain expenses or revenues as extraordinary if the recorded income or expense is non-operating and non-recurring.

Pensions and post-retirement benefits

Under US GAAP, the liability and related pension expense is determined based on the projected unit credit actuarial calculation of the benefit obligation.

Under Swiss GAAP, the liability and related pension expense is primarily determined based on the pension plan valuation in accordance with Swiss GAAP FER 26. A pension asset is recorded if a statutory overfunding of a pension plan leads to a future economic benefit, and a pension liability is recorded if a statutory underfunding of a pension plan leads to a future economic obligation. Employer contribution reserves must be capitalized if they represent a future economic benefit. A future economic benefit exists if the employer can reduce its future statutory annual contribution to the pension plan by releasing employer contribution reserves. Pension expenses include the required contributions defined by Swiss law, any additional contribution mandated by the pension fund trustees and any change in value of the pension asset or liability between two measurement dates as determined on the basis of the annual year-end pension plan valuation.

Discontinued operations

Under US GAAP, the assets and liabilities of a discontinued operation are separated from the ordinary captions of the consolidated balance sheets and are reported as discontinued operations measured at the lower of the carrying value or fair value less cost to sell. Accordingly, income and expense from discontinued operations are reported in a separate line item of the consolidated statements of operations.

Under Swiss GAAP, these positions remain in their initial balance sheet captions until disposed of and continue to be valued according to the respective captions.

Security collateral received in securities lending transactions

Under US GAAP, security collateral received in securities lending transactions with the right to sell or repledge are recorded

as assets and a corresponding liability to return the collateral is recognized.

Under Swiss GAAP, security collateral received and the obligation to return collateral of securities lending transactions are not recognized on the balance sheet.

Digital assets held in custody

Under US GAAP, an entity records a liability on its balance sheet for its obligation to safeguard digital assets held as a custodian for its clients, and a corresponding safeguarding asset.

Under Swiss GAAP, the recording of a safeguarding liability and a safeguarding asset for digital assets held as a custodian for its clients is not required.

Loan commitments

Under US GAAP, loan commitments include all commitments to extend loans, unfunded commitments under commercial lines of credit, revolving credit lines, credit guarantees in the future and overdraft protection agreements, except for commitments that can be revoked by the Group at any time at the Group's sole discretion without prior notice.

Under Swiss GAAP, loan commitments include all commitments to extend loans, unfunded commitments under commercial lines of credit, revolving credit lines, credit guarantees in the future and overdraft protection agreements, except for commitments that can be revoked by the Group at any time at the Group's sole discretion with a notice period not exceeding six weeks.

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Report of the Statutory Auditor

[Report of the statutory auditor intentionally omitted solely for purposes of the filing of
Group and Bank's Annual Report on Form 20-F filed with the US Securities and Exchange Commission]

Parent company financial statements – Credit Suisse Group 411

[Report of the statutory auditor intentionally omitted solely for purposes of the filing of
Group and Bank's Annual Report on Form 20-F filed with the US Securities and Exchange Commission]

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Parent company financial statements

Statement of income

in	Note	2022	2021
Statement of income (CHF million)			
Dividend income from participations	3	632	12
Other financial income	4	2,651	2,160
Other operating income	5	128	96
Total operating income		3,411	2,268
Financial expenses	6	2,869	2,270
Personnel expenses	7	56	24
Other operating expenses	8	127	110
Amortization, depreciation and impairment losses on noncurrent assets	1	24,475	2,923
Total operating expenses		27,527	5,327
Operating profit/(loss)		(24,116)	(3,059)
Extraordinary, non-recurring or prior period income	9	0	311
Net profit/(loss) before taxes		(24,116)	(2,748)
Direct tax expenses		12	12
Net profit/(loss)		(24,128)	(2,760)

Balance sheet

end of	Note	2022	2021
Assets (CHF million)			
Cash and cash equivalents		2,088	5,960
Other short-term receivables	10	10,216	5,214
Accrued income and prepaid expenses	11	1,128	927
Total current assets		13,432	12,101
Financial investments	12	56,574	50,168
Participations	13	29,838	50,254
Intangible assets		6	0
Total noncurrent assets		86,418	100,422
Total assets		99,850	112,523
Liabilities and shareholders' equity (CHF million)			
Short-term interest-bearing liabilities	14	12,293	12,190
Other short-term liabilities		54	13
Accrued expenses and deferred income	15	1,287	988
Total short-term liabilities		13,634	13,191
Long-term interest-bearing liabilities	16	63,555	56,568
Total long-term liabilities		63,555	56,568
Total liabilities		77,189	69,759
Share capital	1, 17	160	106
Capital contribution reserves	1	30,251	26,674
Other capital reserves		1,952	1,800
Legal capital reserves		32,203	28,474
Reserves for own shares held by subsidiaries	18	500	500
Legal income reserves		500	500
Statutory and discretionary reserves		10,500	10,500
Retained earnings carried forward		3,828	6,719
Net profit/(loss)		(24,128)	(2,760)
Voluntary retained earnings/(accumulated losses)		(9,800)	14,459
Treasury shares against other capital reserves		(402)	(469)
Treasury shares against voluntary retained earnings		0	(153)
Treasury shares against capital contribution reserves		0	(153)
Treasury shares	19	(402)	(775)
Total shareholders' equity		22,661	42,764
Total liabilities and shareholders' equity		99,850	112,523

Statement of changes in shareholders' equity

	Share capital	Legal capital reserves	Legal income reserves	Statutory and discretionary reserves	Retained earnings carried forward	Net profit/(loss)	Treasury shares	Total shareholders' equity
2022 (CHF million)								
Balance at beginning of period	106	28,474	500	10,500	6,719	(2,760)	(775)	42,764
Appropriation of net profit/(loss)	—	—	—	—	(2,760)	2,760	—	—
Distribution for the financial year 2021	—	(131)	—	—	(131)	—	—	(262)
Issuance of shares	54	3,860	—	—	—	—	—	3,914
Sale/(purchase) of treasury shares	—	—	—	—	—	—	373	373
Net profit/(loss)	—	—	—	—	—	(24,128)	—	(24,128)
Balance at end of period	160	32,203	500	10,500	3,828	(24,128)	(402)	22,661
2021 (CHF million)								
Balance at beginning of period	98	26,960	500	10,500	7,037	(197)	(392)	44,506
Appropriation of net profit/(loss)	—	—	—	—	(197)	197	—	—
Distribution for the financial year 2020	—	(121)	—	—	(121)	—	—	(242)
Issuance of shares	8	1,635	—	—	—	—	—	1,643
Purchase of shares as part of the share buyback program 2021	—	—	—	—	—	—	(306)	(306)
Sale/(purchase) of other treasury shares	—	—	—	—	—	—	(77)	(77)
Net profit/(loss)	—	—	—	—	—	(2,760)	—	(2,760)
Balance at end of period	106	28,474	500	10,500	6,719	(2,760)	(775)	42,764

1 General information, business developments and subsequent events

Company details

Credit Suisse Group AG is a Swiss holding company incorporated as a joint stock corporation (public limited company) with its registered office in Zurich, Switzerland. The financial statements of Credit Suisse Group AG are prepared in accordance with the regulations of the Swiss Code of Obligations and are stated in Swiss francs (CHF). The financial year ends on December 31.

Credit Suisse Group AG issues high-trigger and low-trigger tier 1 capital notes as well as senior unsecured notes, which qualify as total loss-absorbing capacity (TLAC). The proceeds from such issuances are generally used to acquire internal notes issued by Credit Suisse AG which substantially mirror the terms of the notes issued by Credit Suisse Group AG.

Number of employees

The annual average number of employees (full-time equivalents) for the current year exceeded 50 but did not exceed 250. In the previous year the average number of employees did not exceed 50.

Business developments

Strategic review

On October 27, 2022, Credit Suisse Group AG announced a series of decisive actions following a strategic review conducted by the Board of Directors and Executive Board, focused on a restructuring of the Investment Bank, an accelerated cost transformation, and strengthened and reallocated capital.

Internal control over financial reporting

The Credit Suisse Group AG's Board of Directors is responsible for establishing and maintaining adequate internal control over financial reporting which is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with Swiss law. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The Board of Directors has made an evaluation and assessment of the internal control over financial reporting as of December 31, 2022. Based upon its review and evaluation, the Board of Directors has concluded that, as of December 31, 2022, the Credit

Suisse Group AG's internal control over financial reporting was not effective as it did not design and maintain an effective risk assessment process to identify and analyze the risk of material misstatements in its financial statements. This material weakness could result in misstatements of account balances or disclosures that would result in a material misstatement to the annual financial statements that would not be prevented or detected.

As a consequence, the statutory auditor PricewaterhouseCoopers AG (PwC) has issued a qualified opinion on the existence of an internal control designed for the preparation of the financial statements as of December 31, 2022.

Notwithstanding the existence of that material weaknesses in internal control over financial reporting, the Credit Suisse Group AG confirms that its financial statements as at December 31, 2022 comply with Swiss law as reflected in PwC's report on those financial statements.

The Credit Suisse Group AG's Board of Directors and the Executive Board have worked continuously in recent years to improve the control environment surrounding financial reporting with increased investment and additional resources and are committed to maintaining a strong internal control environment and implementing measures designed to help ensure that the material weaknesses are remediated with the highest priority. The Credit Suisse Group AG's Board of Directors and the Executive Board are developing a remediation plan to address the material weakness referred to above, including strengthening the risk and control framework, and which will build on the significant attention that management has devoted to controls to date.

Other than as described above, there were no changes in the Credit Suisse Group AG's internal control over financial reporting during the period covered by this report that have materially affected, or are reasonably likely to materially affect, the Credit Suisse Group AG's internal controls over financial reporting.

Valuation of participations

The carrying value of Credit Suisse Group AG's participations in subsidiaries is reviewed for potential impairment on at least an annual basis as of December 31 and at any other time that events or circumstances indicate that the participations' value may be impaired. Such events and circumstances during the year, which included increased interest rates, the deterioration of the economic environment, the comprehensive strategic review announced on October 27, 2022, significant deposit and net asset outflows in the fourth quarter as well as the related liquidity issues, were considered triggering events and required reviews of the participations' value. Based on the reviews performed,

Credit Suisse Group AG recorded total participation impairments of CHF 24.5 billion, primarily relating to Credit Suisse AG, for the year 2022.

Capital increase

On November 23, 2022, Credit Suisse Group AG held an Extraordinary General Meeting, at which shareholders approved two capital increases. Credit Suisse Group AG completed the first capital increase on November 25, 2022 by way of a share placement of 462,041,884 newly issued shares to qualified investors resulting in gross proceeds of CHF 1.76 billion. Credit Suisse Group AG completed the second capital increase by way of a rights offering on December 9, 2022. By the end of the rights exercise period, 98.2% of the rights had been exercised for the issuance of 872,989,594 shares. The remaining 16,378,864 newly issued shares for which rights were not exercised were sold in the market. The rights offering resulted in gross proceeds of CHF 2.25 billion. The capital increases resulted in 1,351,410,342 newly issued shares and gross proceeds for Credit Suisse Group AG of CHF 4.0 billion. Credit Suisse Group AG made capital contributions of CHF 3.89 billion to its wholly-owned subsidiary Credit Suisse AG.

Sale of CS Trust business

On September 6, 2022, the Group signed separate agreements with The Bank of N.T. Butterfield & Son Limited (Butterfield) and Gasser Partner Trust reg. (Gasser Partner) for the sale of its global trust business (Credit Suisse Trust, CST), while CST entities will continue to operate with a limited number of clients. Under separate agreements, Butterfield will acquire CST's businesses based in Guernsey, Singapore, and The Bahamas, while Gasser Partner will acquire CST's Liechtenstein business. The transaction with Butterfield is expected to close in 2023 and is subject to customary conditions. The transfer of a majority of the trust structures in Liechtenstein occurred on February 28, 2023, with the expectation that a small number of remaining trust structures will transfer on a rolling basis in the first half of 2023.

Subsequent events

Securitized Products Group

On November 15, 2022, Credit Suisse announced that it had entered into definitive transaction agreements to sell a significant part of its Securitized Products Group (SPG) to entities and funds managed by affiliates of Apollo Global Management. This transaction involves phased closings through the first half of 2023 and represents an important step towards a managed exit from the SPG business and to de-risk the bank. On February 7, 2023, the parties completed the first closing of such transaction and the majority of the assets and professionals associated with the transaction are now part of or managed by ATLAS SP Partners, a new standalone credit firm focused on asset-backed financing and capital markets solutions. On February 23, 2023, the parties completed the second closing of such transaction, with further assets transferred.

CS First Boston

On February 9, 2023, Credit Suisse announced the acquisition of The Klein Group LLC, the investment banking business as well as the registered broker-dealer of M. Klein & Company LLC (the seller). The purchase price is USD 175 million. To align interests with Credit Suisse, the seller will receive a convertible note and a warrant. The note will provide annual payments and convert into, and the warrant entitles the seller to subscribe to, CS First Boston shares at a qualified initial public offering or other liquidity event, at the then-valuation of CS First Boston, less a customary discount. The principal amount of the convertible note is expected to be USD 100 million, with the balance being paid in cash dependent on the amount of taxes to be paid by the seller at closing. The net present value of the transaction to Credit Suisse is expected to be approximately USD 210 million, which also includes interest cost, annual payments on the note and other payments that may in the future become payable in respect of this transaction. The transaction is expected to close in the first half of 2023.

2 Accounting and valuation principles

These financial statements were prepared in accordance with the provisions of the Swiss Law on Accounting and Financial Reporting (32nd title of the Swiss Code of Obligations).

Cash and cash equivalents

Cash and cash equivalents are carried at nominal value.

Derivatives held for hedging purposes

Interest rate swaps

Credit Suisse Group AG entered into hedging transactions to hedge interest rate risk exposures from fixed rate liabilities with fixed receiver interest rate swaps with equivalent notionals and

maturities. These hedging relationships are considered to be highly effective over the entire lifetime of the hedge. The hedging instruments follow the accounting treatment of the underlying assets and liabilities, i.e. the accrued net interest and the unamortized day one payments are recognized on the balance sheet as "Accrued income and prepaid expenses" and as "Accrued expenses and deferred income", respectively. The interest and the amortization of the day one payments on the interest rate swaps are recorded as financial expenses in the statement of income. The interest rate swaps were initially recorded at cost. Subsequently, no replacement values and no valuation changes, i.e., change of clean replacement values, are recorded on the balance sheet and in the statement of income of the company.

Cross-currency basis swaps

Credit Suisse Group AG uses cross-currency basis swaps to hedge the foreign currency risk resulting from mismatches between assets and liabilities denominated in non-functional currencies. The cross-currency basis swaps have a notional equivalent to the respective asset and liability currency mismatch. These hedging relationships are considered to be highly effective over the entire lifetime of the hedge and are adjusted as exposure changes to ensure the hedges remain effective. The hedging instruments follow the accounting treatment of the underlying risk hedged. The change of fair value due to change in foreign exchange rates is reflected in other financial income or financial expenses and off-sets with the foreign currency remeasurement effects of the hedged foreign currency exposure. The interest is recorded as financial expenses. The change in fair value due to change in foreign exchange rates and the accrued interest of the cross-currency basis swaps are recognized on the balance sheet as “Accrued income and prepaid expenses” and as “Accrued expenses and deferred income”. The cross-currency basis swaps were initially recorded at cost. Subsequently, no replacement values and no valuation changes due to changes in interest rates, i.e., change of clean replacement values related to interest, are recorded on the balance sheet and in the statement of income of the company.

Financial investments

Financial investments include debt securities with a remaining maturity of more than 12 months after the balance sheet date. These securities are carried at cost. No valuation adjustments or impairment losses were required.

Participations

Participations are valued at historical cost less impairment. For the purpose of impairment testing, with a clearly defined sub-portfolio of economically closely related participations, the portfolio valuation method is applied. Impairment is assessed at each balance sheet date or at any point in time when facts and circumstances would indicate that an event has occurred which triggers an impairment review. The amount of impairment, if any, is assessed on the level of this sub-portfolio and not individually for each participation. All other participations are valued individually.

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An impairment is recorded if the carrying value exceeds the fair value of the participation sub-portfolio. If the fair value of participations recovers significantly and is considered sustainable, a prior period impairment can be reversed up to the historical cost value of the participations.

Intangible assets

Intangible assets are amortized over a period of five years. Intangible assets are tested for impairment annually, or more frequently if events or changes in circumstances indicate that the intangible assets may be impaired.

Interest-bearing liabilities

Short-term and long-term interest-bearing liabilities are carried at nominal value. Issuance costs and discounts are recognized as prepaid expenses and are amortized on a straight-line basis over the contractual term of the notes. Premiums are recognized as accrued expenses and are amortized on a straight-line basis over the contractual term of the notes.

Treasury shares

Own shares are recorded at cost and reported as treasury shares, resulting in a reduction to total shareholders' equity. Realized gains and losses on the sale of own shares are recognized through the statement of income as other financial income or financial expenses.

Revenue recognition

Revenues are recognized when they are realized or realizable, and are earned. Dividend income is recorded in the reporting period in which the dividend is declared.

Foreign currency translations

Assets and liabilities denominated in foreign currencies are translated into Swiss francs at the exchange rates prevailing at year-end, with the exception of non-monetary assets and liabilities, which are maintained in Swiss francs at historical exchange rates. All currency translation effects are recognized in other financial income or financial expenses.

3 Dividend income from participations

in	2022	2021
Dividend income from participations (CHF million)		
Credit Suisse AG	570	10
Credit Suisse Services AG	50	0
Other	12	2
Dividend income from participations	632	12

4 Other financial income

in	2022	2021
Other financial income (CHF million)		
Interest income ¹	2,651	2,150
Gains on sale of treasury shares	0	10
Other financial income	2,651	2,160

¹ Included negative interest income of CHF 2 million and CHF 17 million in 2022 and 2021, respectively.

5 Other operating income

in	2022	2021
Other operating income (CHF million)		
Trademark fees	61	53
Management fees	61	36
Guarantee fees	3	6
Other	3	1
Other operating income	128	96

6 Financial expenses

in	2022	2021
Financial expenses (CHF million)		
Interest expense ¹	2,716	2,178
Losses on sale of treasury shares	152	89
Foreign exchange losses	1	3
Financial expenses	2,869	2,270

¹ Included negative interest expense of CHF 31 million and CHF 54 million in 2022 and 2021, respectively.

7 Personnel expenses

in	2022	2021
Personnel expenses (CHF million)		
Salaries	53	34
Variable compensation expenses/(credits)	(9)	(20)
Other	12	10
Personnel expenses	56	24

8 Other operating expenses

in	2022	2021
Other operating expenses (CHF million)		
Branding expenses	59	53
Other general and administrative expenses	68	57
Other operating expenses	127	110

9 Extraordinary, non-recurring or prior period income

in	2022	2021
Extraordinary, non-recurring or prior period income (CHF million)		
Release of provisions	0	311 ¹
Extraordinary, non-recurring or prior period income	0	311

¹ Release of economically not required provisions from prior periods.

10 Other short-term receivables

end of	2022	2021
Other short-term receivables (CHF million)		
Debt securities ¹	9,065	4,878
Cash collateral provided	892	113
Receivables for trademark fees	217	220
Other	42	3
Other short-term receivables	10,216	5,214

¹ Reflects notes issued by Credit Suisse AG.

11 Accrued income and prepaid expenses

end of	2022	2021
Accrued income and prepaid expenses (CHF million)		
Accrued interest income	827	653
Deferred debt issuance costs	241	220
Unamortized discount on notes issued	56	39
Unamortized premium on debt securities	1	2
Derivatives held for hedging purposes	0	8
Other	3	5
Accrued income and prepaid expenses	<u>1,128</u>	<u>927</u>

12 Financial investments

end of	2022	2021
Financial investments (CHF million)		
Debt securities ¹	56,573	50,167
Equity securities	1	1
Financial investments	<u>56,574</u>	<u>50,168</u>

¹ Reflects notes issued by Credit Suisse AG.

13 Participations

Direct participations

Company name	Domicile	Currency	Nominal capital in million	Voting interest in %	Equity interest in %
as of December 31, 2022					
Capital Union Bank B.S.C (closed) (under liquidation)	Manama, Kingdom of Bahrain	USD	20.0	26	26
Credit Suisse AG ¹	Zurich, Switzerland	CHF	4,399.7	100	100
Credit Suisse Group Funding (Guernsey) Limited ¹	St. Peter Port, Guernsey	USD	0.1	100	100
Credit Suisse Insurance Linked Strategies Ltd. ¹	Zurich, Switzerland	CHF	0.2	100	100
Credit Suisse International ^{1, 3}	London, United Kingdom	USD	11,366.2	2 ²	2 ²
Credit Suisse Services AG ¹	Zurich, Switzerland	CHF	1.0	100	100
Credit Suisse Trust AG ¹	Zurich, Switzerland	CHF	5.0	100	100
Credit Suisse Trust Holdings Limited ¹	St. Peter Port, Guernsey	GBP	17.0	100	100
CS LP Holding AG	Zug, Switzerland	CHF	0.1	100	100
Inreska Limited ¹	St. Peter Port, Guernsey	GBP	3.0	100	100
Savoy Hotel Baur en Ville AG	Zurich, Switzerland	CHF	7.5	88	88

¹ For the purpose of impairment testing, these participations form part of a sub-portfolio for which the portfolio valuation method is applied.

² 98% held by other group companies.

³ Private unlimited company.

Indirect participations

The company's principal indirect participations are shown in Note 41 – Significant subsidiaries and equity method investments in VI – Consolidated financial statements – Credit Suisse Group.

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14 Short-term interest-bearing liabilities

end of	2022	2021
Short-term interest-bearing liabilities (CHF million)		
Senior unsecured notes	5,859	3,506
High-trigger tier 1 capital notes	2,050	1,372
Low-trigger tier 1 capital notes	2,081	0
Due to banks	2,303	7,312
Short-term interest-bearing liabilities	12,293	12,190

16 Long-term interest-bearing liabilities

The high-trigger and low-trigger tier 1 capital notes issued by Credit Suisse Group AG are perpetual securities and have no fixed or final maturity date. Subject to the satisfaction of certain conditions, they may be redeemed, at the option of the issuer, on the first call date or as specified thereafter in the terms of the note.

The high-trigger tier 1 capital notes mandatorily are permanently written down to zero, as provided in the terms of the respective instrument, upon the occurrence of certain specified triggering events. These events include the Group's consolidated common equity tier 1 (CET1) ratio falling below 7%, or a determination by the Swiss Financial Market Supervisory Authority FINMA (FINMA) that write-down is necessary, or that Credit Suisse Group AG requires extraordinary public sector capital support, to prevent Credit Suisse Group AG from becoming insolvent, bankrupt or unable to pay a material amount of its debt, or other similar circumstances. Write-down can only be prevented if FINMA, at Credit Suisse Group AG's request, is satisfied that certain conditions exist and determines that a write-down is not required. High-trigger instruments are designed to absorb losses before other capital instruments, including the low-trigger capital instruments.

The low-trigger tier 1 capital notes have a write-down feature, which means that interest on the notes shall cease to accrue and the full principal amount of the notes will be permanently written down to zero upon the occurrence of certain specified triggering events, also called write-down events. A write-down event will occur if the sum of the Group's consolidated CET1 ratio and

15 Accrued expenses and deferred income

end of	2022	2021
Accrued expenses and deferred income (CHF million)		
Accrued interest expense	891	679
Deferred fees on debt securities	220	200
Derivatives held for hedging purposes	98	6
Unamortized discount on debt securities	36	24
Accrued personnel and other operating expenses	29	61
Unamortized premium on notes issued	11	17
Other	2	1
Accrued expenses and deferred income	1,287	988

the Higher Trigger Capital Ratio (i.e., the ratio of Higher Trigger Capital Amount to the aggregate of all risk-weighted assets of the Group) as of any quarterly balance sheet date or interim capital report date is below 5.125%. A write-down event will also occur if FINMA determines that a write-down of the notes is necessary, or that Credit Suisse Group AG requires extraordinary public sector capital support to prevent Credit Suisse Group AG from becoming insolvent, bankrupt or unable to pay a material part of its debts, or other similar circumstances. Write-down can only be prevented if FINMA, at the Group's request, is satisfied that certain conditions exist and determines that a conversion or write-down is not required.

In addition to the high-trigger and low-trigger tier 1 capital notes, Credit Suisse Group AG has issued senior unsecured notes, which qualify as TLAC. The senior unsecured notes have a fixed maturity date and can be redeemed, at the option of the issuer, at a call date, if specified in the applicable terms and conditions. The senior unsecured notes are bail-in debt instruments that are designed to absorb losses after the cancellation of Credit Suisse Group AG's equity instruments and after the write-down or conversion into equity of regulatory capital (including high-trigger and low-trigger tier 1 capital notes) in restructuring proceedings with respect to Credit Suisse Group AG. Bail-in debt instruments do not feature capital triggers that may lead to a write-down and/or a conversion into equity outside of restructuring, but only begin to bear losses once Credit Suisse Group AG is formally in restructuring proceedings and FINMA orders capital measures (i.e., a write-down and/or a conversion into equity) in the restructuring plan.

Long-term interest-bearing liabilities

Currency	Notional (million)	Interest rate	Issue date	Call date	Maturity date	2022 Carrying value (CHF million)	2021 Carrying value (CHF million)
High-trigger tier 1 capital notes							
USD	2,000	7.500% ¹	July 16, 2018	July 17, 2023	Perpetual	— ²	1,829
CHF	200	3.875% ¹	March 22, 2017	September 22, 2023	Perpetual	— ²	200
SGD	750	5.625% ¹	June 6, 2019	June 6, 2024	Perpetual	517	508
CHF	300	3.500% ¹	September 4, 2018	September 4, 2024	Perpetual	300	300
USD	1,500	7.250% ¹	September 12, 2018	September 12, 2025	Perpetual	1,387	1,372
CHF	525	3.000% ¹	September 11, 2019	November 11, 2025	Perpetual	525	525
USD	1,750	6.375% ¹	August 21, 2019	August 21, 2026	Perpetual	1,619	1,600
USD	1,500	5.250% ¹	August 11, 2020	August 11, 2027 ³	Perpetual	1,387	1,372
USD	1,650	9.750% ¹	June 23, 2022	December 23, 2027 ³	Perpetual	1,526	—
USD	1,000	5.100% ¹	January 24, 2020	January 24, 2030	Perpetual	925	915
USD	1,500	4.500% ¹	December 9, 2020	March 3, 2031 ³	Perpetual	1,387	1,372
Total high-trigger tier 1 capital notes						9,573	9,993
Low-trigger tier 1 capital notes							
USD	2,250	7.500% ¹	December 11, 2013	December 11, 2023	Perpetual	— ²	2,057
USD	2,500	6.250% ¹	June 18, 2014	December 18, 2024	Perpetual	2,312	2,286
Total low-trigger tier 1 capital notes						2,312	4,343
Senior unsecured notes							
AUD	125	3.500% ¹	March 8, 2018	March 8, 2023	March 8, 2024	— ²	83
AUD	175	3 Month BBSW +1.25%	March 8, 2018	March 8, 2023	March 8, 2024	— ²	116
USD	1,050	3 Month USD LIBOR +0.80% ⁴	March 8, 2019	March 8, 2023	March 8, 2024	— ²	960
CHF	1,000 ⁵	1.000%	April 15, 2015	—	April 14, 2023	— ²	1,000
USD	2,000	3.800%	June 10, 2016	—	June 9, 2023	— ²	1,829
USD	1,250	4.207% ¹	June 12, 2018	June 12, 2023	June 12, 2024	— ²	1,143
USD	750	3 Month USD LIBOR +1.24%	June 12, 2018	June 12, 2023	June 12, 2024	— ²	686
EUR	1,500	1.250% ¹	July 17, 2017	July 17, 2024	July 17, 2025	1,478	1,551
USD	2,000	2.593% ¹	September 11, 2019	September 11, 2024	September 11, 2025	1,850	1,829
GBP	750	2.125% ¹	September 12, 2017	September 12, 2024	September 12, 2025	837	926
EUR	1,500	3 Month EURIBOR +1.0%	January 18, 2021	January 16, 2025	January 16, 2026	1,478	1,551
USD	2,500	3.750%	March 26, 2015	—	March 26, 2025	2,312	2,286
EUR	2,000	3.250% ¹	April 2, 2020	April 2, 2025	April 2, 2026	1,970	2,068
NOK	1,000	3.600%	May 29, 2015	—	May 28, 2025	93	104
USD	1,500	2.193% ¹	June 5, 2020	June 5, 2025	June 5, 2026	1,387	1,372
USD	1,500	6.373% ¹	August 12, 2022	July 15, 2025	July 15, 2026	1,387	—
GBP	500	2.750%	August 8, 2016	—	August 8, 2025	558	618
EUR	2,000	2.125% ¹	March 24, 2022	October 13, 2025	October 13, 2026	1,970	—
USD	2,000	1.305% ¹	February 2, 2021	February 2, 2026	February 2, 2027	1,850	1,829
USD	2,000	4.550%	April 18, 2016	—	April 17, 2026	1,850	1,829
EUR	1,500 ⁶	1.000% ¹	June 24, 2019	June 24, 2026	June 24, 2027	1,478	1,551
GBP	750	7.000% ¹	September 7, 2022	September 30, 2026	September 30, 2027	837	—
JPY	8,300	0.904% ¹	October 27, 2017	October 27, 2026	October 27, 2027	58	66
USD	2,250	4.282%	January 9, 2017	January 9, 2027	January 9, 2028	2,081	2,058
EUR	1,250	0.650% ¹	January 14, 2020	January 14, 2027	January 14, 2028	1,231	1,292
JPY	5,000	1.100%	April 4, 2022	April 4, 2027 ⁷	April 4, 2028	35	—
GBP	750	2.250% ¹	June 9, 2020	June 9, 2027	June 9, 2028	837	926
USD	1,750	6.442% ¹	August 12, 2022	August 11, 2027	August 11, 2028	1,619	—
USD	2,000	3.869% ¹	January 12, 2018	January 12, 2028	January 12, 2029	1,850	1,829
EUR	3,000	7.750% ¹	November 14, 2022	March 1, 2028	March 1, 2029	2,955	—
GBP	450	2.125% ¹	November 15, 2021	November 15, 2028	November 15, 2029	502	556
EUR	100	1.190% ^{1,8}	June 11, 2019	March 11, 2029	March 11, 2030	99	103
EUR	1,000	0.650% ¹	September 10, 2019	—	September 10, 2029	985	1,034
USD	3,000	4.194% ¹	April 1, 2020	April 1, 2030	April 1, 2031	2,775	2,744

Long-term interest-bearing liabilities (continued)

Currency	Notional (million)	Interest rate	Issue date	Call date	Maturity date	2022	2021
						Carrying value (CHF million)	Carrying value (CHF million)
EUR	1,500	2.875% ¹	March 24, 2022	April 2, 2031	April 2, 2032	1,478	—
USD	3,250	3.091% ¹	May 14, 2021	May 14, 2031	May 14, 2032	3,006	2,972
USD	3,000	6.537% ¹	August 12, 2022	August 12, 2032	August 12, 2033	2,775	—
GBP	750	7.375% ¹	September 7, 2022	September 7, 2032	September 7, 2033	837	—
JPY	10,000	1.269% ¹	October 27, 2017	October 27, 2032	October 27, 2033	70	79
USD	2,000	9.016% ¹	November 14, 2022	November 15, 2032	November 15, 2033	1,850	—
EUR	1,500	0.625%	January 18, 2021	—	January 18, 2033	1,478	1,551
EUR	100	2.455%	July 11, 2018	July 11, 2033	July 4, 2034	99	103
USD	2,000	4.875%	May 21, 2015	— ⁷	May 15, 2045	1,850	1,829
USD	365	4.600% ⁹	March 29, 2018	March 29, 2047 ⁷	March 29, 2048	338	319
USD	176	5.000% ⁹	June 29, 2018	June 29, 2047 ⁷	June 29, 2048	163	154
USD	231	5.000% ⁹	August 31, 2018	August 31, 2047 ⁷	August 31, 2048	214	201
USD	123	5.350% ⁹	October 26, 2018	October 26, 2047 ⁷	October 26, 2048	114	107
USD	123	5.400% ⁹	December 27, 2018	December 27, 2047 ⁷	December 27, 2048	114	107
USD	140	5.350% ⁹	January 30, 2019	January 30, 2048 ⁷	January 30, 2049	130	122
USD	140	5.350% ⁹	January 30, 2019	January 30, 2048 ⁷	January 30, 2049	130	122
USD	117	5.300% ⁹	January 30, 2019	January 30, 2048 ⁷	January 30, 2049	108	101
USD	149	4.700% ⁹	May 29, 2019	May 29, 2048 ⁷	May 29, 2049	138	130
USD	148	4.500% ⁹	June 27, 2019	June 27, 2048 ⁷	June 27, 2049	137	130
USD	302	3.850% ⁹	January 31, 2020	January 31, 2059 ⁷	January 31, 2060	279	266
Total senior unsecured notes						51,670	42,232
Total						63,555	56,568

¹ Interest rate reset at first call date and on every reset date thereafter.

² Reported as short-term interest-bearing liabilities.

³ Represents the first reset date. Optional redemption at any time during the six-month period prior to the first reset date.

⁴ Minimum rate of 0.80%.

⁵ On May 12, 2015, the offering was re-opened and the aggregate principal amount was increased from CHF 825 million to CHF 1,000 million.

⁶ On July 23, 2019, the offering was re-opened and the aggregate principal amount was increased from EUR 1,000 million to EUR 1,500 million.

⁷ Represents the final call date of these notes with multiple call dates prior to maturity.

⁸ The interest rate was 1.59% from June 11, 2019 to March 10, 2020.

⁹ The interest rate of these zero coupon annual accreting senior callable notes reflects the yield rate of the notes.

17 Share capital, conditional, conversion and authorized capital

	No. of registered shares	Par value in CHF	% of existing share capital	No. of registered shares	Par value in CHF
Share capital as of December 31, 2021				2,650,747,720	106,029,909
Ordinary share capital increase					
Private placement on November 25, 2022				462,041,884	18,481,675
Rights offering on December 9, 2022				889,368,458	35,574,738
Conditional capital					
Capital as of December 31, 2021	300,000,000	12,000,000			
Capital as of December 31, 2022	300,000,000	12,000,000	7		
Conversion capital					
Capital as of December 31, 2021	150,000,000	6,000,000			
Capital as of December 31, 2022	150,000,000	6,000,000	4		
Authorized capital					
Capital as of December 31, 2021	—	—			
Annual General Meeting of April 29, 2022 – increase	125,000,000	5,000,000			
Capital as of December 31, 2022	125,000,000	5,000,000	3		
Share capital as of December 31, 2022				4,002,158,062	160,086,322

18 Credit Suisse Group shares held by subsidiaries

As of December 31, 2022 and 2021, 9,804,712 share equivalents (market value of CHF 27 million) and 6,319,702 share equivalents (market value of CHF 56 million), respectively, were held by subsidiaries.

A reserve for own shares held by subsidiaries in the amount of CHF 500 million has been established in shareholders' equity.

19 Purchases and sales of treasury shares

	Net gain/(loss) on sale (CHF million)	Treasury shares, at cost (CHF million)	Number of shares	Average price per share (CHF)
2022				
Balance as of December 31, 2021		<u>775</u>	<u>74,743,509</u>	<u>10.36</u>
Purchase of treasury shares		186	36,918,850	5.05
Sale of treasury shares ¹	(152)	(559)	(60,559,090)	6.73
Change in 2022	(152)	(373)	(23,640,240)	
Balance as of December 31, 2022		<u>402</u>	<u>51,103,269</u>	<u>7.86</u>
2021				
Balance as of December 31, 2020		<u>392</u>	<u>38,431,871</u>	<u>10.19</u>
Purchase of treasury shares		1,018	94,918,138	10.73
Sale of treasury shares ¹	(79)	(635)	(58,606,500)	9.49
Change in 2021	(79)	383	36,311,638	
Balance as of December 31, 2021		<u>775</u>	<u>74,743,509</u>	<u>10.36</u>

2022: Highest price CHF 9.54, paid on January 14 and lowest price CHF 3.44 paid on November 25 in a market transaction.

2021: Highest price CHF 13.02, paid on March 10 and lowest price CHF 8.44 paid on December 20 in a market transaction.

¹ Representing share award settlements.

20 Significant shareholders

end of	2022			2021		
	Number of shares (million)	Total nominal value (CHF million)	Share- holding (%)	Number of shares (million)	Total nominal value (CHF million)	Share- holding (%)
Direct shareholders ¹						
Chase Nominees Ltd. ²	433	17	10.83	304	12	11.48
Nortrust Nominees Ltd. ²	217	9	5.43	197	8	7.42
The Bank of New York Mellon ²	213	9	5.31	139	6	5.25

¹ As registered in the share register of the Group on December 31 of the reporting period; includes shareholders registered as nominees.

² Nominee holdings exceeding 2% are registered with a right to vote only if the nominee confirms that no individual shareholder holds more than 0.5% of the outstanding share capital or if the nominee discloses the identity of any beneficial owner holding more than 0.5% of the outstanding capital.

• Refer to "Note 3 – Business developments, significant shareholders and subsequent events" in VI – Consolidated financial statements – Credit Suisse Group for information received from shareholders not registered in the share register of Credit Suisse Group AG.

21 Assets subject to retention of title

As of December 31, 2022 and 2021, cash and cash equivalents in the amount of CHF 5 million were held in an escrow account.

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22 Contingent liabilities

As of December 31, 2022 and 2021, aggregate indemnity liabilities, guarantees and other contingent liabilities (net of exposures recorded as liabilities) were CHF 812 million and CHF 5,897 million, respectively. Credit Suisse Group AG has entered into these contingent liabilities on behalf of its subsidiaries.

Contingent liabilities include guarantees for obligations, performance-related guarantees and letters of comfort. Contingencies with a stated amount are included in the above reported amounts. In some instances, however, the amount of exposure of Credit Suisse Group AG is not specified but relates to specific circumstances such as the solvency of subsidiaries, and therefore no amount is included in the above figures.

Value-added tax

The company belongs to the Swiss value-added tax group of Credit Suisse Group, and thus carries joint liability to the Swiss federal tax authority for value-added tax debts of the entire Group. As of December 31, 2022 and 2021, Credit Suisse Group AG has not recorded any contingent liabilities with regard to value-added tax.

23 Assets and liabilities with related parties

end of	2022	2021
Assets (CHF million)		
Cash and cash equivalents	2,083	5,955
Other short-term receivables	10,174	5,211
Accrued income and prepaid expenses	829	667
Total current assets – related parties	13,086	11,833
Financial investments	56,573	50,167
Participations	29,838	50,254
Total noncurrent assets – related parties	86,411	100,421
Total assets – related parties	99,497	112,254
Liabilities (CHF million)		
Short-term interest-bearing liabilities	2,303	7,312
Other short-term liabilities	27	7
Accrued expenses and deferred income ¹	357	248
Total short-term liabilities – related parties	2,687	7,567
Total liabilities – related parties	2,687	7,567

The assets and liabilities represent the amounts due from and due to group companies, except where indicated.

¹ Included amounts due to management bodies of CHF 3 million at December 31, 2022 and CHF 17 million at December 31, 2021, respectively.

Swiss pension plan

The employees of Credit Suisse Group AG are covered by the pension plan of the “Pensionskasse der Credit Suisse Group (Schweiz)” (the Swiss pension plan). Most of the Swiss subsidiaries of Credit Suisse Group AG and a few companies that have close business and financial ties with Credit Suisse Group AG participate in this plan. The Swiss pension plan is an independent self-insured pension plan set up as a trust and qualifies as a defined contribution plan (savings plan) under Swiss law.

The Swiss pension plan’s annual financial statements are prepared in accordance with Swiss GAAP FER 26 based on the full population of covered employees. Individual annual financial statements for each participating company are not prepared. As a multi-employer plan with unrestricted joint liability for all participating companies, the economic interest in the Swiss pension plan’s over- or underfunding is allocated to each participating company based on an allocation key determined by the plan. As of December 31, 2022 and 2021, Credit Suisse Group AG has not recorded any contingent liabilities with regard to the Swiss pension plan.

24 Subordinated assets and liabilities

end of	2022	2021
Subordinated assets and liabilities (CHF million)		
Subordinated assets	66,463	55,706
Subordinated liabilities	16,244	15,971

Includes accrued interest.

Group-internal funding related to loss-absorbing instruments has been aligned to international standards for internal TLAC instruments and to article 126b of the Swiss Capital Adequacy Ordinance, effective January 1, 2020. Due to this alignment, the bail-in debt instruments issued by Credit Suisse AG to Credit Suisse Group AG are permanently subordinated.

25 Shareholdings

Executive Board shareholdings

The shareholdings of the Executive Board members, their immediate family and companies in which they have a controlling

interest as well as the value of the unvested share-based compensation awards held by Executive Board members as of December 31, 2022 and 2021, are disclosed in the table below.

Executive Board holdings and values of deferred share-based awards by individual

end of	Number of owned shares ¹	Number of unvested awards ²	Number of owned shares and unvested awards	Value (CHF) of unvested awards at grant date ³	Value (CHF) of unvested awards at year end ⁴
2022					
Ulrich Körner	340,055	1,564	341,619	12,008	4,323
Markus Diethelm	—	—	—	—	—
Francesco De Ferrari	—	250,550	250,550	2,009,376	692,520
Christine Graeff	—	37,424	37,424	288,013	103,440
Joanne Hannaford	105,247	385,863	491,110	3,177,695	1,066,525
André Helfenstein	208,718	415,737	624,455	4,191,339	189,536
Dixit Joshi	—	—	—	—	—
Edwin Low	283,051	636,136	919,187	5,892,589	1,758,280
Francesca McDonagh	—	—	—	—	—
Nita Patel	6,569	89,202	95,771	739,646	246,554
David Wildermuth	83,541	309,905	393,446	2,451,675	856,577
Total	1,027,181	2,126,381	3,153,562	18,762,343	4,917,756
2021					
Thomas P. Gottstein	343,933	865,241	1,209,174	10,346,761	5,044,803
Romeo Cerutti	419,333	339,027	758,360	4,074,902	2,033,172
André Helfenstein	89,962	516,222	606,184	5,574,001	3,215,381
Lydie Hudson	—	243,816	243,816	2,670,588	1,383,393
Ulrich Körner	246,487	—	246,487	—	—
Rafael Lopez Lorenzo	99,591	127,566	227,157	1,519,990	1,131,766
David R. Mathers	163,403	992,083	1,155,486	10,869,369	6,974,651
Christian Meissner	247	—	247	—	—
Joachim Oechslin	213,577	272,122	485,699	3,506,175	2,414,266
Antoinette Poschung	158,585	123,557	282,142	1,355,032	706,324
Helman Sitohang	471,033	805,946	1,276,979	9,665,696	4,811,141
James B. Walker	221,384	396,582	617,966	4,314,624	2,582,473
Philipp Wehle	76,739	549,634	626,373	6,208,945	3,511,812
Total	2,504,274	5,231,796	7,736,070	60,106,082	33,809,182

1 Includes shares that were initially granted as deferred compensation and have vested.

2 For 2022, includes unvested shares originating from LTI awards based on performance payout achieved at the end of the applicable three year performance period. For 2021, includes unvested shares originating from LTI opportunities calculated on the basis of maximum opportunity for awards that have not reached the end of their three-year performance period, given that the actual achievement level and associated number of unvested shares cannot be determined until the end of the performance period. For LTI awards that have reached the end of their three-year performance period, the number of unvested shares reflects the actual number of shares earned based on achievement of the performance target levels.

3 Determined based on the number of unvested awards multiplied by the share price at grant.

4 For 2022, includes the value of unvested LTI opportunities based on performance payout achieved at the end of the applicable three year performance period. For 2021, includes the value of unvested LTI opportunities. For LTI awards that have reached the end of their three-year performance period, the value is based on the actual number of shares eligible to vest. For LTI opportunities that have not reached the end of their three-year performance period, this is determined based on the number of shares at fair value at the time of grant, multiplied by the share price at the end of the year.

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Board of Directors shareholdings

The shareholdings of the Board of Directors members, their immediate family and companies in which they have a controlling interest are disclosed in the following table. As of December 31, 2022 and 2021, there were no Board of Directors members with outstanding options.

Board of Directors shareholdings by individual

end of	2022	2021
December 31 (shares) ¹		
Axel Lehmann	568,066	108,220
Mirko Bianchi ²	21,676	—
Iris Bohnet	201,502	115,182
Clare Brady	57,985	12,695
Christian Gellerstad	247,267	138,884
Keyu Jin ²	24,559	—
Shan Li	117,064	49,062
Seraina Macia	190,728	105,035
Blythe Masters	57,918	12,027
Richard Meddings	156,811	58,403
Amanda Norton ²	18,217	—
Ana Paula Pessoa	118,570	79,404
Total	1,780,363	678,912 ³

- 1 Includes Group shares that are subject to a blocking period of up to four years; includes shareholdings of immediate family members.
- 2 Mirko Bianchi, Keyu Jin and Amanda Norton were newly elected at the 2022 AGM.
- 3 Excluded 335,902 shares held by António Horta-Osório, who stepped down as Chairman as of January 16, 2022; 71,465 shares held by Michael Klein, who stepped down as of October 27, 2022; and 422,140 shares held by Kai S. Nargolwala and 199,154 shares held by Severin Schwan, who both did not stand for re-election at the 2022 AGM.

Shares awarded

end of	2022		2021	
	Number of shares	Value of shares (CHF million)	Number of shares	Value of shares (CHF million)
Shares awarded				
Board of Directors	681,332	4	322,738	3
Executive Board ¹	0	0	14,951	0
Employees ²	104,780,511	286	50,641,954	418

Includes shares, share awards and performance share awards.

- 1 For the individuals who joined the Executive Board and the individuals who left the Executive Board during 2021, compensation relating to the period during which they were members of the Executive Board and, for leavers, during their respective notice period is included. No share awards were granted to the Executive Board in respect of 2022.
- 2 Includes shares awarded to employees of subsidiaries of Credit Suisse Group AG and excludes shares awarded to the Executive Board.

Share awards outstanding

end of	2022		2021	
	Number of share awards outstanding in million	Fair value in CHF million	Number of share awards outstanding in million	Fair value in CHF million
Share awards ¹				
Employees	254	702	221	1,961
Total share awards	254	702	221	1,961

- 1 In the interests of transparency, share awards granted to employees of subsidiaries of Credit Suisse Group AG are also considered in this disclosure table.

Proposed appropriation of accumulated losses and capital distribution

Proposed appropriation of accumulated losses

	<u>2022</u>
Retained earnings/(accumulated losses) (CHF million)	
Retained earnings carried forward	3,828
Net profit/(loss)	<u>(24,128)</u>
Accumulated losses	<u>(20,300)</u>
Proposed transfer from statutory and discretionary reserves	<u>10,500</u>
Accumulated losses to be carried forward	<u>(9,800)</u>

Proposed distribution out of capital contribution reserves

	<u>2022</u>
Capital contribution reserves (CHF million)	
Balance at end of year	<u>30,251</u>
Proposed distribution of CHF 0.05 per registered share for the financial year 2022 ¹	<u>(198)</u>
Balance after distribution	<u>30,053</u>

Distributions are free of Swiss withholding tax and are not subject to income tax for Swiss resident individuals holding the shares as a private investment.

¹ 3,951,054,793 registered shares – net of own shares held by the company – as of December 31, 2022. The number of registered shares eligible for distribution may change due to the issuance of new registered shares and transactions in own shares.

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Controls and procedures

Evaluation of disclosure controls and procedures

The Bank has evaluated the effectiveness of its disclosure controls and procedures as of the end of the period covered by this report under the supervision and with the participation of management, including the Bank Chief Executive Officer (CEO) and Chief Financial Officer (CFO), pursuant to Rule 13(a)-15(b) under the Securities Exchange Act of 1934 (the Exchange Act). The Bank identified certain material weaknesses in internal control over financial reporting as of December 31, 2021 and, consequently, December 31, 2022, which are described below. As a result of these material weaknesses, the Bank CEO and CFO have concluded that, as of December 31, 2022, the Bank's disclosure controls and procedures were not effective.

Notwithstanding the existence of these material weaknesses in internal control over financial reporting, the Bank confirms that its consolidated financial statements in this Annual Report fairly present, in all material respects, the Bank's consolidated financial condition as of December 31, 2022 and 2021, and its consolidated results of operations and cash flows for the years ended December 31, 2022, 2021 and 2020, in conformity with US GAAP, as reflected in PricewaterhouseCoopers AG's (PwC) report on those financial statements.

Management's report on internal control over financial reporting

The management of the Bank is responsible for establishing and maintaining adequate internal control over financial reporting. The Bank's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with US GAAP. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance the policies or procedures may deteriorate.

Management has made an evaluation and assessment of the Bank's internal control over financial reporting as of December 31, 2022 using the criteria issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in "Internal Control – Integrated Framework (2013)". Based upon its review and evaluation, management, including the Bank CEO and CFO, has concluded that, as of December 31, 2022, the Bank's internal control over financial reporting was not effective because of the material weaknesses described below. For the same reasons, management has also reassessed its conclusion as to the effectiveness of internal control over financial reporting as of December 31, 2021, and concluded that internal control over financial reporting was also not effective as of such date.

Management did not design and maintain an effective risk assessment process to identify and analyze the risk of material misstatements in its financial statements and did not design and maintain effective monitoring activities relating to (i) providing sufficient management oversight over the internal control evaluation process to support the company's internal control objectives; (ii) involving appropriate and sufficient management resources to support the risk assessment and monitoring objectives; and (iii) assessing and communicating the severity of deficiencies in a timely manner to those parties responsible for taking corrective action. These material weaknesses contributed to an additional material weakness, as management did not design and maintain effective controls over the classification and presentation of the consolidated statement of cash flows. Specifically, certain control activities over the completeness and the classification and presentation of non-cash items in the consolidated statement of cash flows were not performed on a timely basis or at the appropriate level of precision. This material weakness resulted in the revisions contained in our previously issued consolidated financial statements for the three years ended December 31, 2021 as disclosed in the 2021 Annual Report. Additionally, each of these material weaknesses could result in further misstatements of account balances or disclosures that would result in a material misstatement to the annual consolidated financial statements that would not be prevented or detected.

PwC, the independent registered public accounting firm that audited the financial statements for the year ended December 31, 2022, included in this annual report, has issued an adverse opinion on the effectiveness of the Bank's internal control over financial reporting as of December 31, 2022.

Remediation plans

Management and the Bank Audit Committee have worked continuously in recent years to improve the control environment surrounding financial reporting with increased investment and additional resources. Management is committed to maintaining a strong internal control environment and implementing measures designed to help ensure that the material weaknesses are remediated as soon as possible. Management is developing a remediation plan to address the material weaknesses referred to above, including strengthening the risk and control frameworks, and which will build on the significant attention that management has devoted to controls to date. Additionally, we will implement robust controls to ensure that all non-cash items are classified appropriately within the consolidated statement of cash flows.

Changes in internal control over financial reporting

Other than as described above, there were no changes in the Bank's internal control over financial reporting during the period covered by this report that have materially affected, or are reasonably likely to materially affect, the Bank's internal control over financial reporting.



Report of Independent Registered Public Accounting Firm

To the Board of Directors and shareholders of Credit Suisse AG

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Credit Suisse AG and its subsidiaries (the "Bank") as of December 31, 2022 and 2021, and the related consolidated statements of operations, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Bank's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Bank as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Bank did not maintain, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework (2013) issued by the COSO because material weaknesses in internal control over financial reporting existed as of that date related to (i) the effectiveness of the risk assessment process to identify and analyze the risk of material misstatements in the Bank's financial statements, (ii) the effectiveness of monitoring activities relating to providing sufficient management oversight over the internal control evaluation process to support the Bank's internal control objectives, involving appropriate and sufficient management resources to support the risk assessment and monitoring objectives and assessing and communicating the severity of deficiencies in a timely manner to those parties responsible for taking corrective action and (iii) the effectiveness of controls over the completeness and the classification and presentation of non-cash items in the consolidated statements of cash flows.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. The material weaknesses referred to above are described in the accompanying Management's report on internal control over financial reporting. We considered these material weaknesses in determining the nature, timing, and extent of audit tests applied in our audit of the 2022 consolidated financial statements, and our opinion regarding the effectiveness of the Bank's internal control over financial reporting does not affect our opinion on those consolidated financial statements.

The Bank's management and we previously concluded that the Bank maintained effective internal control over financial reporting as of December 31, 2021. However, the Bank's management and we have subsequently determined that material weaknesses in internal control over financial reporting existed and accordingly concluded that internal control over financial reporting was not effective as of such date.

Change in Accounting Principle

As discussed in Note 2 and Note 19 to the consolidated financial statements, the Bank changed the manner in which it accounts for credit losses on certain financial instruments in 2020.

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Basis for Opinions

The Bank's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in management's report referred to above. Our responsibility is to express opinions on the Bank's consolidated financial statements and on the Bank's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Bank in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Fair Value of Certain Level 3 Financial Instruments

As described in Note 35 to the consolidated financial statements, the Bank carried CHF 9,313 million of its assets and CHF 9,523 million of its liabilities measured at fair value on a recurring basis that are categorized as level 3 of the fair value hierarchy as of December 31, 2022. For these financial instruments, for which no prices are available and which have significant unobservable inputs, the determination of fair value may require the use of either industry standard models or internally developed proprietary models, as well as subjective assessment and judgment, depending on liquidity, pricing assumptions, the current economic and competitive environment and the risks affecting the specific instrument. The significant unobservable inputs used by management to determine the fair value of certain of these level



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3 financial instruments included (i) correlation, (ii) market implied life expectancy, in years, (iii) UK mortality, (iv) price, (v) volatility, and (vi) credit spread.

The principal considerations for our determination that performing procedures relating to the fair value of certain level 3 financial instruments is a critical audit matter are (i) the significant judgment by management in determining the fair value of these financial instruments, which in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence related to the fair value of these financial instruments, and (ii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the fair value of financial instruments, including controls over the Bank's models, inputs, and data. These procedures also included, among others, for a sample of financial instruments, the involvement of professionals with specialized skill and knowledge to assist in (i) developing an independent estimate of fair value or (ii) testing management's process to determine the fair value of these financial instruments. Developing an independent estimate involved (i) testing the completeness and accuracy of data provided by management, (ii) evaluating and utilizing management's significant unobservable inputs or developing independent significant unobservable inputs, and (iii) comparing management's estimate to the independently developed estimate of fair value. Testing management's process to determine the fair value involved (i) evaluating the reasonableness of management's significant unobservable inputs, (ii) evaluating the appropriateness of the techniques used, and (iii) testing the completeness and accuracy of data used by management to determine the fair value of these instruments.

Allowance for Credit Losses on Certain Collectively Evaluated Corporate and Institutional Loans

As described in Notes 1 and 19 to the consolidated financial statements, the Bank's allowance for credit losses on collectively evaluated corporate and institutional loans was CHF 431 million on corporate and institutional loans held at amortized cost of CHF 107,421 million as of December 31, 2022. The credit loss amounts were based on a forward-looking, lifetime current expected credit losses ("CECL") model by incorporating reasonable and supportable forecasts of future economic conditions available at the reporting date. Expected credit losses were not solely derived from projections of macroeconomic factors. Model overlays based on expert judgment were also applied, considering historical loss experience and industry and counterparty reviews, and were primarily impacting certain corporate and institutional loans portfolios.

The principal considerations for our determination that performing procedures relating to the allowance for credit losses on certain collectively evaluated corporate and institutional loans is a critical audit matter are (i) the significant judgment by management in evaluating model results and assessing the need for overlays to the CECL model output, (ii) the significant judgment and estimation by management in determining an appropriate methodology for the overlays applied, which both in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and in evaluating audit evidence obtained relating to the model results and the appropriateness of overlays to the CECL model output, and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's expected credit loss process, including controls over the Bank's models, data, and overlays. The procedures also included, among others, testing management's process for estimating expected credit losses, which included (i) evaluating the appropriateness of the model methodologies used to determine the allowance for credit losses, (ii) testing the completeness and accuracy of data used in the estimate, and (iii) for a sample, evaluating the reasonableness of management's model overlays. The procedures included the use of professionals with specialized skill and knowledge to assist in evaluating the appropriateness of model methodologies and assist in evaluating the audit evidence.

Litigation provisions

As described in Note 39 to the consolidated financial statements, the Bank is involved in a number of judicial, regulatory and arbitration proceedings concerning matters arising in connection with the conduct of its businesses. The Bank's aggregate litigation provisions include estimates of losses, additional losses or ranges of loss for proceedings for which such losses are probable and can be reasonably estimated. As of December 31, 2022, the Bank has recorded litigation provisions of CHF 1,125 million. Management's estimate of the aggregate range of reasonably possible losses that are not covered by existing provisions for which management believes an estimate is possible is zero to CHF 0.9 billion.

The principal considerations for our determination that performing procedures relating to the litigation provisions is a critical audit matter are the significant judgment by management when assessing the likelihood of a loss being incurred and when determining whether a reasonable estimate of the loss or ranges of loss for each claim can be made, which in



turn led to a high degree of auditor judgment, subjectivity, and effort in evaluating management's assessment of the litigation provisions and related disclosures.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's estimation of the litigation provisions, including controls over determining whether a loss is probable and whether the amount of loss can be reasonably estimated, as well as controls over the related financial statement disclosures. These procedures also included, among others, obtaining and evaluating the letters of audit inquiry with internal and external legal counsel, targeted inquiries with external counsel, evaluating the reasonableness of management's assessment regarding whether an unfavorable outcome is reasonably possible or probable and reasonably estimable, and evaluating the sufficiency of the Bank's litigation provisions and related disclosures.

Goodwill Impairment Assessment of the Asset Management and Wealth Management Reporting Units

As described in Note 20 to the consolidated financial statements, the Bank's goodwill balance was CHF 2,868 million as of December 31, 2022, which is allocated to the Group's reporting units, and for which CHF 1,100 million was allocated to the Asset Management reporting unit and CHF 1,281 million was allocated to the Wealth Management reporting unit. Goodwill is reviewed for impairment on an annual basis as of December 31 and at any other time that events or circumstances indicate that the carrying value of goodwill may not be recoverable. In estimating the fair value of its reporting units, management applied a combination of the market approach and the income approach. In determining the estimated fair value, management relied upon its latest five-year financial plan which included significant management assumptions and estimates based on their view of current and future economic conditions and significant assumptions regarding the discount rate under the income approach as well as price to projected earnings and price to book value multiples ("multiples") under the market approach.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment of the Asset Management and Wealth Management reporting units is a critical audit matter are (i) the significant judgment by management when developing the fair value measurement of the Asset Management and Wealth Management reporting units, (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions, specifically the five-year financial plan, discount rate and multiples, and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls over the valuation of the Asset Management and Wealth Management reporting units. These procedures also included, among others (i) testing management's process for developing the fair value estimate of the Asset Management and Wealth Management reporting units and (ii) developing an independent estimate of fair value for these reporting units. Testing management's process involved (i) evaluating the reasonableness of significant assumptions used by management, specifically the five-year financial plan, discount rate and multiples, (ii) evaluating the appropriateness of the methods used, and (iii) testing the completeness and accuracy of underlying data used in management's model. Developing an independent estimate involved using alternative financial plans, as well as independent discount rate and multiples, and comparing management's estimate to the independently developed estimate. Professionals with specialized skill and knowledge were used to assist in the evaluation of the management's estimate and development of an independent estimate.

/s/ PricewaterhouseCoopers AG

Zurich, March 14, 2023

We have served as the Bank's auditor since 2020.



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432-IV Consolidated financial statements – Credit Suisse (Bank)

Consolidated statements of operations

in	Note	2022	2021	2020
Consolidated statements of operations (CHF million)				
Interest and dividend income	5	12,265	9,593	11,220
Interest expense	5	(6,868)	(3,668)	(5,260)
Net interest income	5	5,397	5,925	5,960
Commissions and fees	6	8,861	13,180	11,850
Trading revenues	7	(525)	2,371	3,178
Other revenues	8	1,480	1,566	1,515
Net revenues		15,213	23,042	22,503
Provision for credit losses	9	15	4,209	1,092
Compensation and benefits	10	7,689	8,011	8,860
General and administrative expenses	11	9,338	8,581	7,962
Commission expenses		1,012	1,243	1,256
Goodwill impairment	20	23	976	0
Restructuring expenses	12	467	113	122
Total other operating expenses		10,840	10,913	9,340
Total operating expenses		18,529	18,924	18,200
Income/(loss) before taxes		(3,331)	(91)	3,211
Income tax expense	28	3,973	938	697
Net income/(loss)		(7,304)	(1,029)	2,514
Net income/(loss) attributable to noncontrolling interests		(31)	(100)	3
Net income/(loss) attributable to shareholders		(7,273)	(929)	2,511

Consolidated statements of comprehensive income

in	2022	2021	2020
Comprehensive income/(loss) (CHF million)			
Net income/(loss)	(7,304)	(1,029)	2,514
Gains/(losses) on cash flow hedges	(1,222)	(300)	177
Foreign currency translation	(263)	786	(3,014)
Unrealized gains/(losses) on securities	(26)	0	(17)
Actuarial gains/(losses)	(158)	30	(44)
Net prior service credit/(cost)	(3)	5	(4)
Gains/(losses) on liabilities related to credit risk	5,956	387	151
Other comprehensive income/(loss), net of tax	4,284	908	(2,751)
Comprehensive income/(loss)	(3,020)	(121)	(237)
Comprehensive income/(loss) attributable to noncontrolling interests	(39)	(72)	(55)
Comprehensive income/(loss) attributable to shareholders	(2,981)	(49)	(182)

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated balance sheets

end of	Note	2022	2021
Assets (CHF million)			
Cash and due from banks		67,746	164,026
of which reported at fair value		198	308
of which reported from consolidated VIEs		229	108
Interest-bearing deposits with banks		387	1,256
of which reported at fair value		14	0
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	14	58,798	103,906
of which reported at fair value		40,793	68,623
Securities received as collateral, at fair value		2,978	15,017
of which encumbered		2,220	8,455
Trading assets, at fair value	15	65,955	111,299
of which encumbered		21,874	30,092
of which reported from consolidated VIEs		2,588	1,822
Investment securities	16	1,717	1,003
of which reported at fair value		796	1,003
of which encumbered		1,248	516
Other investments	17	5,463	5,788
of which reported at fair value		3,730	4,093
of which reported from consolidated VIEs		781	1,015
Net loans	18	268,104	300,358
of which reported at fair value		7,358	10,243
of which encumbered		103	42
of which reported from consolidated VIEs		3,410	1,400
allowance for credit losses		(1,362)	(1,296)
Goodwill	20	2,868	2,881
Other intangible assets	21	452	276
of which reported at fair value		403	224
Brokerage receivables		13,818	16,689
allowance for credit losses		(4,081)	(4,186)
Other assets	22	41,753	36,715
of which reported at fair value		8,947	9,184
of which reported from consolidated VIEs		4,594	1,482
of which loans held-for-sale (amortized cost base)		8,378	588
allowance for credit losses – other assets held at amortized cost		(37)	(28)
Total assets		530,039	759,214

The accompanying notes to the consolidated financial statements are an integral part of these statements.

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Consolidated balance sheets (continued)

end of	Note	2022	2021
Liabilities and equity (CHF million)			
Due to banks	24	11,905	18,960
of which reported at fair value		490	477
Customer deposits	24	234,554	393,841
of which reported at fair value		2,464	3,700
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	14	20,371	35,368
of which reported at fair value		14,133	13,307
Obligation to return securities received as collateral, at fair value		2,978	15,017
Trading liabilities, at fair value	15	18,337	27,539
of which reported from consolidated VIEs		1,063	8
Short-term borrowings		14,489	25,336
of which reported at fair value		6,783	10,690
of which reported from consolidated VIEs		3,137	4,352
Long-term debt	25	150,661	160,695
of which reported at fair value		57,919	67,788
of which reported from consolidated VIEs		2,096	1,391
Brokerage payables		11,442	13,062
Other liabilities	22	16,826	21,309
of which reported at fair value		2,286	2,568
of which reported from consolidated VIEs		189	233
Total liabilities		481,563	711,127
Common shares		4,400	4,400
Additional paid-in capital		50,879	47,417
Retained earnings		7,659	14,932
Accumulated other comprehensive income/(loss)	26	(15,067)	(19,359)
Total shareholders' equity		47,871	47,390
Noncontrolling interests		605	697
Total equity		48,476	48,087
Total liabilities and equity		530,039	759,214

- Refer to “Note 33 – Guarantees and commitments” and “Note 39 – Litigation” for information on commitments and contingencies.

end of	2022	2021
Additional share information		
Par value (CHF)	1.00	1.00
Issued shares	4,399,680,200	4,399,680,200
Shares outstanding	4,399,680,200	4,399,680,200

The Bank's total share capital is fully paid and consists of 4,399,680,200 registered shares as of December 31, 2022. Each share is entitled to one vote. The Bank has no warrants on its own shares outstanding.

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of changes in equity

	Attributable to shareholders					Total share- holders' equity	Non- controlling interests	Total equity
	Common shares	Additional paid-in capital	Retained earnings	Treasury shares, at cost ¹	AOCI			
2022 (CHF million)								
Balance at beginning of period	4,400	47,417	14,932	0	(19,359)	47,390	697	48,087
Purchase of subsidiary shares from non-controlling interests, not changing ownership ^{2,3}	—	—	—	—	—	—	(64)	(64)
Sale of subsidiary shares to noncontrolling interests, not changing ownership ³	—	—	—	—	—	—	79	79
Net income/(loss)	—	—	(7,273)	—	—	(7,273)	(31)	(7,304)
Total other comprehensive income/(loss), net of tax	—	—	—	—	4,292	4,292	(8)	4,284
Share-based compensation, net of tax	—	195	—	—	—	195	—	195
Dividends on share-based compensation, net of tax	—	(14)	—	—	—	(14)	—	(14)
Dividends paid	—	(570)	—	—	—	(570)	(1)	(571)
Changes in scope of consolidation, net	—	—	—	—	—	—	(66)	(66)
Other	—	3,851 ⁴	—	—	—	3,851	(1)	3,850
Balance at end of period	4,400	50,879	7,659	0	(15,067)	47,871	605	48,476
2021 (CHF million)								
Balance at beginning of period	4,400	46,232	15,871	0	(20,239)	46,264	795	47,059
Purchase of subsidiary shares from non-controlling interests, not changing ownership	—	—	—	—	—	—	(46)	(46)
Sale of subsidiary shares to noncontrolling interests, not changing ownership	—	—	—	—	—	—	27	27
Net income/(loss)	—	—	(929)	—	—	(929)	(100)	(1,029)
Total other comprehensive income/(loss), net of tax	—	—	—	—	880	880	28	908
Share-based compensation, net of tax	—	125	—	—	—	125	—	125
Dividends on share-based compensation, net of tax	—	(9)	—	—	—	(9)	—	(9)
Dividends paid	—	—	(10)	—	—	(10)	(1)	(11)
Changes in scope of consolidation, net	—	—	—	—	—	—	(3)	(3)
Other	—	1,069	—	—	—	1,069	(3)	1,066
Balance at end of period	4,400	47,417	14,932	0	(19,359)	47,390	697	48,087

¹ Reflects Credit Suisse Group shares which are reported as treasury shares. Those shares are held to economically hedge share award obligations.

² Distributions to owners in funds include the return of original capital invested and any related dividends.

³ Transactions with and without ownership changes related to fund activity are all displayed under “not changing ownership”.

⁴ Included a capital contribution of CHF 3,890 million from Credit Suisse Group AG to Credit Suisse AG following the capital increases in November and December 2022 by the Group.

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of changes in equity (continued)

	Attributable to shareholders							Non-controlling interests	Total equity
	Common shares/ participation securities	Additional paid-in capital	Retained earnings	Treasury shares, at cost	AOCI	Total shareholders' equity			
2020 (CHF million)									
Balance at beginning of period	4,400	45,774	13,492	0	(17,546)	46,120	643	46,763	
Purchase of subsidiary shares from non-controlling interests, not changing ownership	—	—	—	—	—	—	(20)	(20)	
Sale of subsidiary shares to noncontrolling interests, not changing ownership	—	—	—	—	—	—	19	19	
Net income/(loss)	—	—	2,511	—	—	2,511	3	2,514	
Cumulative effect of accounting changes, net of tax	—	—	(132)	—	—	(132)	—	(132)	
Total other comprehensive income/(loss), net of tax	—	—	—	—	(2,693)	(2,693)	(58)	(2,751)	
Share-based compensation, net of tax	—	494	—	—	—	494	—	494	
Dividends on share-based compensation, net of tax	—	(41)	—	—	—	(41)	—	(41)	
Dividends paid	—	(10)	—	—	—	(10)	—	(10)	
Changes in scope of consolidation, net	—	—	—	—	—	—	198	198	
Other	—	15	—	—	—	15	10	25	
Balance at end of period	4,400	46,232	15,871	0	(20,239)	46,264	795	47,059	

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of cash flows

in	2022	2021	2020
Operating activities (CHF million)			
Net income/(loss)	(7,304)	(1,029)	2,514
Adjustments to reconcile net income/(loss) to net cash provided by/(used in) operating activities (CHF million)			
Impairment, depreciation and amortization	1,540	2,227	1,196
Provision for credit losses	15	4,209	1,092
Deferred tax provision/(benefit)	3,772	164	358
Share-based compensation	745	886	1,086
Valuation adjustments relating to long-term debt	(14,434)	1,140	2,706
Share of net income/(loss) from equity method investments	(109)	(181)	(120)
Trading assets and liabilities, net	35,806	27,302	(8,079)
(Increase)/decrease in other assets	1,750	16,082	(7,128)
Increase/(decrease) in other liabilities	(7,316)	(13,453)	407
Other, net	(106)	(454)	176
Total adjustments	21,663	37,922	(8,306)
Net cash provided by/(used in) operating activities	14,359	36,893	(5,792)
Investing activities (CHF million)			
(Increase)/decrease in interest-bearing deposits with banks	885	(6)	(520)
(Increase)/decrease in central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	38,854	(8,895)	19,289
Purchase of investment securities	(1,230)	(630)	(402)
Proceeds from sale of investment securities	44	0	629
Maturities of investment securities	229	184	184
Investments in subsidiaries and other investments	(286)	(2,049)	(210)
Proceeds from sale of other investments	509	615	677
(Increase)/decrease in loans	19,303	(3,935)	(9,252)
Proceeds from sales of loans	2,754	5,371	3,860
Capital expenditures for premises and equipment and other intangible assets	(1,254)	(1,254)	(1,044)
Proceeds from sale of premises and equipment and other intangible assets	0	3	45
Other, net	590	457	113
Net cash provided by/(used in) investing activities	60,398	(10,139)	13,369

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Consolidated statements of cash flows (continued)

in	2022	2021	2020
Financing activities (CHF million)			
Increase/(decrease) in due to banks and customer deposits	(166,262)	1,111	24,616
Increase/(decrease) in short-term borrowings	(11,329)	3,437	(5,290)
Increase/(decrease) in central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(7,493)	(2,998)	(1,539)
Issuances of long-term debt	62,694	51,254	57,641
Repayments of long-term debt	(49,644)	(52,964)	(42,768)
Dividends paid	(571)	(11)	(10)
Other, net	3,333	350	(445)
Net cash provided by/(used in) financing activities	(169,272)	179	32,205
Effect of exchange rate changes on cash and due from banks (CHF million)			
Effect of exchange rate changes on cash and due from banks	(1,765)	(1,114)	(2,619)
Net increase/(decrease) in cash and due from banks (CHF million)			
Net increase/(decrease) in cash and due from banks	(96,280)	25,819	37,163
Cash and due from banks at beginning of period ¹	164,026	138,207	101,044
Cash and due from banks at end of period ¹	67,746	164,026	138,207

¹ Includes restricted cash.

Supplemental cash flow information

in	2022	2021	2020
Cash paid for income taxes and interest (CHF million)			
Cash paid for income taxes	653	797	735
Cash paid for interest	7,566	5,518	8,126

- Refer to “Note 19 – Financial instruments measured at amortized cost and credit losses”, “Note 23 – Leases” and “Note 34 – Transfers of financial assets and variable interest entities” for information on non-cash transactions.

The accompanying notes to the consolidated financial statements are an integral part of these statements.

1 Summary of significant accounting policies
Overview

The accompanying consolidated financial statements of Credit Suisse AG (the Bank), the direct bank subsidiary of Credit Suisse Group AG (the Group), are prepared in accordance with accounting principles generally accepted in the US (US GAAP) and are stated in Swiss francs (CHF). The financial year for the Bank ends on December 31. Certain reclassifications have been made to the prior year's consolidated financial statements to conform to the current presentation which had no impact on net income/ (loss) or total shareholders' equity.

In preparing the consolidated financial statements, management is required to make estimates and assumptions including, but not limited to, the fair value measurements of certain financial assets and liabilities, the allowance for credit losses, the evaluation of variable interest entities (VIEs), the impairment of assets other than loans, recognition of deferred tax assets, tax uncertainties, pension liabilities and various contingencies. These estimates and assumptions affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the dates of the consolidated balance sheets and the reported amounts of revenues and expenses during the reporting period. While management evaluates its estimates and assumptions on an ongoing basis, actual results could differ materially from management's estimates. Market conditions may increase the risk and complexity of the judgments applied in these estimates.

- Refer to "Note 1 – Summary of significant accounting policies" in VI – Consolidated financial statements – Credit Suisse Group for a summary of significant accounting policies, with the exception of the following accounting policies.

Certain accounting changes

As noted in our 2021 Annual Report, the Bank identified an accounting issue that was not material to the prior period financial statements. The Bank identified this accounting issue with respect to the net balance sheet treatment relating to the presentation of a limited population of certain securities lending and borrowing activities. As a result, balance sheet and cash flow positions for both assets and liabilities relating to these activities were presented on a gross basis and prior periods were revised in the consolidated financial statements and the related notes.

Beginning with the half-year ended June 30, 2022, the Bank has presented these securities lending and borrowing transactions as a single unit of account and as a result these transactions will no longer be presented on a gross basis. The Bank did not adjust

prior period financial information, which continue to reflect a presentation on a gross basis.

Pension and other post-retirement benefits

Credit Suisse sponsors a Group defined benefit pension plan in Switzerland that covers eligible employees of the Bank domiciled in Switzerland. The Bank also has single-employer defined benefit pension plans and defined contribution pension plans in Switzerland and other countries around the world.

For the Bank's participation in the Group defined benefit pension plan, no retirement benefit obligation is recognized in the consolidated balance sheets of the Bank and defined contribution accounting is applied, as the Bank is not the sponsoring entity of the Group plan.

For single-employer defined benefit plans, the Bank uses the projected unit credit actuarial method to determine the present value of its projected benefit obligations (PBO) and the current and past service costs or credits related to its defined benefit and other post-retirement benefit plans. The measurement date used to perform the actuarial valuation is December 31 and is performed by independent qualified actuaries.

- Refer to "Pension and other post-retirement benefits" in VI – Consolidated financial statements – Credit Suisse Group – Note 1 – Summary of significant accounting policies for further information.

Own shares, own bonds and financial instruments on Group shares

The Bank's shares are wholly owned by Credit Suisse Group AG and are not subject to trading. The Bank may buy and sell Credit Suisse Group AG shares (Group shares) and Group bonds, own bonds and financial instruments on Group shares within its normal trading and market-making activities. In addition, the Bank may hold Group shares to economically hedge commitments arising from employee share-based compensation awards. Group shares are reported as trading assets, unless those shares are held to economically hedge share award obligations. Hedging shares are reported as treasury shares, resulting in a reduction to total shareholder's equity. Financial instruments on Group shares are recorded as assets or liabilities and carried at fair value. Dividends received on Group shares and unrealized and realized gains and losses on Group shares are recorded according to the classification of the shares as trading assets or treasury shares. Purchases of bonds originally issued by the Bank are recorded as an extinguishment of debt.

2 Recently issued accounting standards

- Refer to "Note 2 – Recently issued accounting standards" in VI – Consolidated financial statements – Credit Suisse Group for recently adopted accounting standards and standards to be adopted in future periods.

The impact on the Bank's and Group's financial position, results of operations or cash flows was or is expected to be identical.

3 Business developments, significant shareholders and subsequent events

- Refer to “Note 3 – Business developments, significant shareholders and subsequent events” in VI – Consolidated financial statements – Credit Suisse Group for further information.

4 Segment information

For the purposes of the presentation of reportable segments, the Bank has included accounts of affiliate entities wholly owned by the same parent which are managed together with the operating segments of the Bank.

- Refer to “Note 4 – Segment information” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Net revenues and income/(loss) before taxes

in	2022	2021	2020
Net revenues (CHF million)			
Wealth Management	4,952	7,031	7,081
Investment Bank	4,607	9,908	10,153
Swiss Bank	4,093	4,316	4,212
Asset Management	1,294	1,508	1,140
Adjustments ¹	267	279	(83)
Net revenues	15,213	23,042	22,503

Income/(loss) before taxes (CHF million)

Wealth Management	(631)	2,307	2,053
Investment Bank	(3,116)	(3,473)	1,910
Swiss Bank	1,545	1,918	1,468
Asset Management	146	362	28
Adjustments ¹	(1,275)	(1,205)	(2,248)
Income/(loss) before taxes	(3,331)	(91)	3,211

- 1 Adjustments represent certain consolidating entries and balances, including those relating to items that are managed but are not legally owned by the Bank and vice versa, and certain revenues and expenses that were not allocated to the segments, including such items relating to the Asset Resolution Unit.

Total assets

end of	2022	2021
Total assets (CHF million)		
Wealth Management	150,411	201,326
Investment Bank	146,846	274,112
Swiss Bank	197,059	221,478
Asset Management	3,373	3,603
Adjustments ¹	32,350	58,695
Total assets	530,039	759,214

- 1 Adjustments represent certain consolidating entries and balances, including those relating to items that are managed but are not legally owned by the Bank and vice versa, and certain revenues and expenses that were not allocated to the segments, including such items relating to the Asset Resolution Unit.

Net revenues and income/(loss) before taxes by geographical location

in	2022	2021	2020
Net revenues (CHF million)			
Switzerland	7,154	8,382	8,659
EMEA	523	2,916	3,162
Americas	6,134	8,896	7,765
Asia Pacific	1,402	2,848	2,917
Net revenues	15,213	23,042	22,503
Income/(loss) before taxes (CHF million)			
Switzerland	543	1,659	2,477
EMEA	(2,907)	(5,554)	(847)
Americas	374	3,574	1,419
Asia Pacific	(1,341)	230	162
Income/(loss) before taxes	(3,331)	(91)	3,211

The designation of net revenues and income/(loss) before taxes is based on the location of the office recording the transactions. This presentation does not reflect the way the Bank is managed.

Total assets by geographical location

end of	2022	2021
Total assets (CHF million)		
Switzerland	201,752	259,874
EMEA	93,767	163,539
Americas	181,228	249,680
Asia Pacific	53,292	86,121
Total assets	530,039	759,214

The designation of total assets by region is based upon customer domicile.

5 Net interest income

in	2022	2021	2020
Net interest income (CHF million)			
Loans	5,900	4,993	5,694
Investment securities	14	1	3
Trading assets, net of trading liabilities ¹	2,540	2,839	3,158
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	2,135	1,172	1,596
Other	1,676	588	769
Interest and dividend income	12,265	9,593	11,220
Deposits	(1,749)	(151)	(1,107)
Short-term borrowings	(227)	3	(170)
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(769)	(812)	(908)
Long-term debt	(3,438)	(2,437)	(2,702)
Other	(685)	(271)	(373)
Interest expense	(6,868)	(3,668)	(5,260)
Net interest income	5,397	5,925	5,960

1 Interest and dividend income is presented on a net basis to align with the presentation of trading revenues for trading assets and liabilities.

6 Commissions and fees

in	2022	2021	2020
Commissions and fees (CHF million)			
Lending business	1,431	1,870	1,612
Investment and portfolio management	3,028	3,401	3,087
Other securities business	61	59	73
Fiduciary business	3,089	3,460	3,160
Underwriting	560	2,560	2,348
Brokerage	2,265	3,088	3,246
Underwriting and brokerage	2,825	5,648	5,594
Other services	1,516	2,202	1,484
Commissions and fees	8,861	13,180	11,850

7 Trading revenues

in	2022	2021	2020
Trading revenues (CHF million) ¹			
Interest rate products	(1,367)	1,081	(1,158)
Foreign exchange products	521	1,133	2,596
Equity/index-related products	427	1,589	1,092
Credit products	540	(1,416)	482
Commodity and energy products	8	(6)	62
Other products	(654)	(10)	104
Trading revenues	(525)	2,371	3,178

Represents revenues on a product basis which are not representative of business results within segments, as segment results utilize financial instruments across various product types.

- 1 The classification of certain product types has been revised, prior periods have been reclassified to conform to the current presentation.
- Refer to “Note 7 – Trading revenues” in VI – Consolidated financial statements – Credit Suisse Group for further information.

8 Other revenues

in	2022	2021	2020
Other revenues (CHF million)			
Loans held-for-sale	(133)	(90)	(34)
Long-lived assets held-for-sale	355	232	26
Equity method investments	167	60	(255)
Other investments	(38)	256	769
Other	1,129	1,108	1,009
Other revenues	1,480	1,566	1,515

9 Provision for credit losses

in	2022	2021	2020
Provision for credit losses (CHF million)			
Loans held at amortized cost	190	(23)	863
Other financial assets held at amortized cost	(135) ¹	4,295 ¹	19
Off-balance sheet credit exposures	(40)	(63)	210
Provision for credit losses	15	4,209	1,092

- 1 Primarily reflected a provision/(release of provision) for credit losses of CHF (155) million and CHF 4,307 million in 2022 and 2021, respectively, related to Archegos.

10 Compensation and benefits

in	2022	2021	2020
Compensation and benefits (CHF million)			
Salaries and variable compensation	6,376	6,730	7,521
Social security	508	530	559
Other ¹	805	751	780
Compensation and benefits	7,689	8,011	8,860

- ¹ Included pension-related expenses of CHF 440 million, CHF 497 million and CHF 503 million in 2022, 2021 and 2020, respectively, relating to service costs for defined benefit pension plans and employer contributions for defined contribution pension plans.

11 General and administrative expenses

in	2022	2021	2020
General and administrative expenses (CHF million)			
Occupancy expenses	889	893	883
IT, machinery and equipment	1,591	1,218	1,129
Provisions and losses	1,529	1,489	1,253
Travel and entertainment	206	127	134
Professional services	3,985	3,625	3,025
Communication and market data services	473	458	458
Amortization and impairment of other intangible assets	4	8	8
Other ¹	661	763	1,072
General and administrative expenses	9,338	8,581	7,962

- ¹ Included pension-related expenses/(credits) of CHF 16 million and CHF (10) million in 2022 and 2021, respectively, relating to certain components of net periodic benefit costs for defined benefit plans.

12 Restructuring expenses

On October 27, 2022, the Bank announced certain strategic actions and completed the restructuring program announced on November 4, 2021 at the end of September 2022. Restructuring expenses of CHF 467 million, CHF 113 million and CHF 122 million were recognized in 2022, 2021 and 2020, respectively.

- Refer to “Note 12 – Restructuring expenses” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Restructuring expenses by segment

in	2022	2021	2020
Restructuring expenses by segment (CHF million)			
Wealth Management	109	19	41
Investment Bank	327	71	48
Swiss Bank	21	11	42
Asset Management	16	3	18
Corporate Center	60	(1)	8
Adjustments ¹	(66)	10	(35)
Total restructuring expenses	467	113	122

- ¹ Adjustments represent certain consolidating entries and balances, including those relating to items that are managed but are not legally owned by the Bank and vice versa.

Restructuring expenses by type

in	2022	2021	2020
Restructuring expenses by type (CHF million)			
Compensation and benefits-related expenses	350	45	102
of which severance expenses	150	26	66
of which accelerated deferred compensation	191	19	36
General and administrative-related expenses	117	68	20
of which pension expenses	8	4	8
Total restructuring expenses	467	113	122

Restructuring liabilities

in	2022			2021			2020		
	Compensation and benefits	General and administrative expenses	Total	Compensation and benefits	General and administrative expenses	Total	Compensation and benefits	General and administrative expenses	Total
Restructuring liabilities (CHF million)									
Balance at beginning of period	19	0	19	47	2	49	–	–	–
Net additional charges ¹	150	73	223	26	32	58	66	6	72
Reclassifications	–	–	–	(22)	(3)	(25) ²	–	–	–
Utilization	(55)	(73)	(128)	(32)	(31)	(63)	(19)	(4)	(23)
Balance at end of period	114	0	114	19	0	19	47	2	49

1 The following items for which expense accretion was accelerated in 2022, 2021 and 2020 due to the restructuring of the Bank were not included in the restructuring liabilities: unsettled share-based compensation of CHF 94 million, CHF 13 million and CHF 25 million, respectively, which remained classified as a component of total shareholders' equity; other personnel-related charges of CHF 106 million, CHF 7 million and CHF 11 million, respectively, which remained classified as compensation liabilities; unsettled pension obligations of CHF 8 million, CHF 4 million and CHF 8 million, respectively, which remained classified as pension liabilities; and accelerated accumulated depreciation and impairment of CHF 36 million, CHF 31 million and CHF 6 million, respectively, which remained classified as premises and equipment. The settlement date for the unsettled share-based compensation remained unchanged at three years.

2 Reclassified within other liabilities.

13 Revenue from contracts with customers

• Refer to “Note 14 – Revenue from contracts with customers” in VI – Consoli-dated financial statements – Credit Suisse Group for further information.

The Bank's contract terms are generally such that they do not result in any contract assets.

There were no material net impairment losses on contract receivables in 2022, 2021 or 2020. The Bank did not recognize any revenues in the reporting period from performance obligations satisfied in previous periods.

Contracts with customers and disaggregation of revenues

in	2022	2021	2020
Contracts with customers (CHF million)			
Investment and portfolio management	3,028	3,401	3,087
Other securities business	61	61	73
Underwriting	560	2,560	2,348
Brokerage	2,264	3,087	3,243
Other services	1,566	2,244	1,566
Total revenues from contracts with customers	7,479	11,353	10,317

The table above differs from “Note 6 – Commissions and fees” as it includes only those contracts with customers that are in scope of ASC Topic 606 – Revenue from Contracts with Customers.

Contract balances

end of	2022	2021
Contract balances (CHF million)		
Contract receivables	686	865
Contract liabilities	54	55

Contract balances

in	4Q22	3Q22	2Q22	1Q22
Revenue recognized (CHF million)				
Revenue recognized in the reporting period included in the contract liabilities balance at the beginning of period	8	11	10	14

Capitalized costs

The Bank has not incurred costs to obtain a contract nor costs to fulfill a contract that are eligible for capitalization.

Remaining performance obligations

ASC Topic 606's practical expedient allows the Bank to exclude from its remaining performance obligations disclosure any performance obligations which are part of a contract with an original expected duration of one year or less. Additionally, any variable consideration, for which it is probable that a significant reversal in the amount of cumulative revenue recognized will occur when the uncertainty associated with the variable consideration is subsequently resolved, is not subject to the remaining performance obligations disclosure because such variable consideration is not included in the transaction price (e.g., investment management fees). Upon review, the Bank determined that no material remaining performance obligations are in scope of the remaining performance obligations disclosure.

14 Securities borrowed, lent and subject to repurchase agreements

end of	2022	2021
Securities borrowed or purchased under agreements to resell (CHF million)		
Central bank funds sold and securities purchased under resale agreements	42,256	65,017
Deposits paid for securities borrowed	16,542	38,889
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	58,798	103,906
Securities lent or sold under agreements to repurchase (CHF million)		
Central bank funds purchased and securities sold under repurchase agreements	19,421	19,685
Deposits received for securities lent	950	15,683
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	20,371	35,368

Amounts shown are after counterparty and cash collateral netting.

- Refer to “Note 15 – Securities borrowed, lent and subject to repurchase agreements” in VI – Consolidated financial statements – Credit Suisse Group for further information.

15 Trading assets and liabilities

end of	2022	2021
Trading assets (CHF million)		
Debt securities	37,614	54,297
Equity securities	13,182	36,606
Derivative instruments ¹	11,143	17,559
Other	4,016	2,837
Trading assets	65,955	111,299
Trading liabilities (CHF million)		
Short positions	9,167	16,693
Derivative instruments ¹	8,945	10,604
Other	225	242
Trading liabilities	18,337	27,539

end of	2022	2021
Cash collateral on derivative instruments – netted (CHF million) ¹		
Cash collateral paid	11,924	17,869
Cash collateral received	9,604	12,056
Cash collateral on derivative instruments – not netted (CHF million) ²		
Cash collateral paid	7,723	7,659
Cash collateral received	2,079	5,533

- ¹ Recorded as cash collateral netting on derivative instruments in Note 27 – Offsetting of financial assets and financial liabilities.
- ² Recorded as cash collateral on derivative instruments in Note 22 – Other assets and other liabilities.

¹ Amounts shown after counterparty and cash collateral netting.

16 Investment securities

end of	2022	2021
Investment securities (CHF million)		
Debt securities held-to-maturity	921	0
Debt securities available-for-sale	796	1,003
Total investment securities	1,717	1,003

Investment securities by type

end of	2022					2021				
	Amortized cost	Allowance for credit losses	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Allowance for credit losses	Gross unrealized gains	Gross unrealized losses	Fair value
Investment securities by type (CHF million)										
Foreign governments	921	0	0	40	881	0	0	0	0	0
Debt securities held-to-maturity	921¹	0	0	40	881	0	0	0	0	0
Corporate debt securities	952	0	0	156	796	1,011	0	0	8	1,003
Debt securities available-for-sale	952²	0	0	156	796	1,011	0	0	8	1,003

- 1 Excluded accrued interest on debt securities held-to-maturity of CHF 10 million as of December 31, 2022, and no related allowance for credit losses. Accrued interest is reported in other assets in the consolidated balance sheet.
- 2 Excluded accrued interest on debt securities available-for-sale of CHF 1 million as of December 31, 2022. Accrued interest is reported in other assets in the consolidated balance sheet.

Gross unrealized losses on debt securities and related fair value

end of	Less than 12 months		12 months or more		Total	
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses
2022 (CHF million)						
Corporate debt securities	374	58	404	98	778	156
Debt securities available-for-sale	374	58	404	98	778	156
2021 (CHF million)						
Corporate debt securities	683	8	0	0	683	8
Debt securities available-for-sale	683	8	0	0	683	8

Proceeds from sales, realized gains and realized losses from debt securities available-for-sale

in	2022	2021	2020
Sales of debt securities available-for-sale (CHF million)			
Proceeds from sales	44	0	629
Realized gains	0	0	42
Realized losses	(6)	0	0

Amortized cost, fair value and average yield of debt securities

end of	Debt securities held-to-maturity			Debt securities available-for-sale		
	Amortized cost	Fair value	Average yield (in %)	Amortized cost	Fair value	Average yield (in %)
2022 (CHF million)						
Due within 1 year	0	0	0.00	18	18	0.60
Due from 1 to 5 years	921	881	3.94	237	210	0.33
Due from 5 to 10 years	0	0	0.00	697	568	0.36
Total debt securities	921¹	881	3.94	952²	796	0.35

- 1 Excluded accrued interest on debt securities held-to-maturity of CHF 10 million.
- 2 Excluded accrued interest on debt securities available-for-sale of CHF 1 million.

Allowance for credit losses on debt securities available-for-sale

As of the end of 2022 and 2021, the Bank had no allowance for credit losses on debt securities available-for-sale.

- Refer to “Note 17 – Investment securities” in VI – Consolidated financial statements – Credit Suisse Group for further information.

17 Other investments

end of	2022	2021
Other investments (CHF million)		
Equity method investments	1,618	1,636
Equity securities (without a readily determinable fair value) ¹	3,212	3,315
of which at net asset value	72	53
of which at measurement alternative	366	345
of which at fair value	2,727	2,869
of which at cost less impairment	47	48
Real estate held-for-investment ²	46	48
Life finance instruments ³	587	789
Total other investments	5,463	5,788

- Includes private equity, hedge funds and restricted stock investments as well as certain investments in non-marketable mutual funds for which the Bank has neither significant influence nor control over the investee.
- As of the end of 2022 and 2021, real estate held-for-investment included foreclosed or repossessed real estate of CHF 20 million and CHF 9 million, respectively, of which CHF 20 million and CHF 6 million, respectively, were related to residential real estate.
- Includes single premium immediate annuity contracts.

Accumulated depreciation related to real estate held-for-investment amounted to CHF 24 million, CHF 28 million and CHF 31 million for 2022, 2021 and 2020, respectively.

No impairments were recorded on real estate held-for-investment in 2022 and 2021. An impairment of CHF 1 million was recorded on real estate held-for-investment in 2020.

Equity securities at measurement alternative

in / end of	2022	Cumulative	2021
Impairments and adjustments (CHF million)			
Impairments and downward adjustments	(12)	(55)	(17)
Upward adjustments	9	147	1

- Refer to “Note 36 – Financial instruments” for further information on such investments and “Note 18 – Other investments” in VI – Consolidated financial statements – Credit Suisse Group for further information.

- Refer to “Note 19 – Loans” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Loans

end of	2022	2021
Loans (CHF million)		
Mortgages	107,484	110,533
Loans collateralized by securities	37,639	51,253
Consumer finance	5,701	5,075
Consumer	<u>150,824</u>	<u>166,861</u>
Real estate	25,463	28,529
Commercial and industrial loans	62,740	69,756
Financial institutions	27,955	33,266
Governments and public institutions	2,555	3,323
Corporate & institutional	<u>118,713</u>	<u>134,874</u>
Gross loans	<u>269,537</u>	<u>301,735</u>
of which held at amortized cost	262,179	291,492
of which held at fair value	<u>7,358</u>	<u>10,243</u>
Net (unearned income)/deferred expenses	(71)	(81)
Allowance for credit losses	<u>(1,362)</u>	<u>(1,296)</u>
Net loans	<u>268,104</u>	<u>300,358</u>
Gross loans by location		
Switzerland	166,982	175,903
Foreign	<u>102,555</u>	<u>125,832</u>
Gross loans	<u>269,537</u>	<u>301,735</u>
Impaired loans		
Non-performing loans	1,614	1,666
Non-interest-earning loans	338	286
Non-accrual loans	<u>1,952</u>	<u>1,952</u>
Restructured loans	484	367
Potential problem loans	977	436
Other impaired loans	<u>1,461</u>	<u>803</u>
Gross impaired loans ¹	<u>3,413</u>	<u>2,755</u>

¹ As of December 31, 2022 and 2021, CHF 130 million and CHF 130 million, respectively, were related to consumer mortgages secured by residential real estate for which formal foreclosure proceedings according to local requirements of the applicable jurisdiction were in process.

- Refer to “Loans” in Note 1 – Summary of significant accounting policies in VI – Consolidated financial statements – Credit Suisse Group for further information on categories of impaired loans.
- Refer to “Note 19 – Financial instruments measured at amortized cost and credit losses” for further information on loans held at amortized cost.

19 Financial instruments measured at amortized cost and credit losses

- Refer to “Note 20 – Financial instruments measured at amortized cost and credit losses” in VI – Consolidated financial statements – Credit Suisse Group for further information on loans held at amortized cost.

Overview of financial instruments measured at amortized cost – by balance sheet position

end of	2022			2021		
	Amortized cost basis ¹	Allowance for credit losses	Net carrying value	Amortized cost basis ¹	Allowance for credit losses	Net carrying value
CHF million						
Cash and due from banks	67,548	0	67,548	163,718	0	163,718
Interest-bearing deposits with banks	373 ²	0	373	1,256 ⁴	0	1,256
Securities purchased under resale agreements and securities borrowing transactions	18,005 ²	0	18,005	35,283 ⁴	0	35,283
Debt securities held-to-maturity	921 ²	0	921	0	0	0
Loans	262,108 ^{2,3}	(1,362)	260,746	291,411 ^{4,5}	(1,296)	290,115
Brokerage receivables	17,899	(4,081)	13,818	20,875 ⁴	(4,186)	16,689
Other assets	23,521	(37)	23,484	14,226	(28)	14,198
Total	390,375	(5,480)	384,895	526,769	(5,510)	521,259

1 Net of unearned income/deferred expenses, as applicable.

2 Excluded accrued interest in the total amount of CHF 549 million, with no related allowance for credit losses. Of the accrued interest balance, CHF 1 million relates to interest-bearing deposits with banks, CHF 4 million to securities purchased under resale agreements and securities borrowing transactions, CHF 10 million to debt securities held-to-maturity and CHF 534 million to loans. These accrued interest balances are reported in other assets.

3 Included interest of CHF 102 million on non-accrual loans which are reported as part of the loans' amortized cost balance.

4 Excluded accrued interest in the total amount of CHF 301 million, with no related allowance for credit losses. Of the accrued interest balance, CHF 1 million relates to interest-bearing deposits with banks, CHF 1 million to securities purchased under resale agreements and securities borrowing transactions, CHF 295 million to loans and CHF 4 million to brokerage receivables. These accrued interest balances are reported in other assets.

5 Included interest of CHF 85 million on non-accrual loans which are reported as part of the loans' amortized cost balance.

Allowance for credit losses

Loans held at amortized cost

Allowance for credit losses – loans held at amortized cost

	2022			2021			2020		
	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total
CHF million									
Balance at beginning of period	357	939	1,296	318	1,217	1,535	241	807	1,048 ¹
Current-period provision for expected credit losses	57	184	241	78	(53)	25	191	709	900
of which methodology changes	0	0	0	0	(1)	(1)	0	(19)	(19)
of which provisions for interest ²	22	29	51	25	23	48	22	15	37
Gross write-offs	(65)	(116)	(181)	(55)	(242)	(297)	(87)	(238)	(325)
Recoveries	12	3	15	9	5	14	8	5	13
Net write-offs	(53)	(113)	(166)	(46)	(237)	(283)	(79)	(233)	(312)
Foreign currency translation impact and other adjustments, net	(2)	(7)	(9)	7	12	19	(35)	(66)	(101)
Balance at end of period	359	1,003	1,362	357	939	1,296	318	1,217	1,535
of which individually evaluated	273	572	845	273	512	785	230	635	865
of which collectively evaluated	86	431	517	84	427	511	88	582	670

- 1 Included a net impact of CHF 103 million from the adoption of the new CECL guidance and the related election of the fair value option for certain loans on January 1, 2020, of which CHF 55 million reflected in consumer loans and CHF 48 million in corporate & institutional loans.
- 2 Represents the current-period net provision for accrued interest on non-accrual loans and lease financing transactions which is recognized as a reversal of interest income.

- Refer to “Note 20 – Financial instruments measured at amortized cost and credit losses” in VI – Consolidated financial statements – Credit Suisse Group for further information on estimating expected credit losses and the Bank’s gross write-offs.

Purchases, reclassifications and sales – loans held at amortized cost

in	2022			2021			2020		
	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total	Consumer	Corporate & institutional	Total
CHF million									
Purchases ¹	17	4,603	4,620	22	4,361	4,383	45	2,756	2,801
Reclassifications from loans held-for-sale ²	0	95	95	0	133	133	0	6	6
Reclassifications to loans held-for-sale ³	0	9,516	9,516	0	4,780	4,780	18	2,007	2,025
Sales ³	0	2,485	2,485	0	4,442	4,442	18	1,626	1,644

Reclassifications from loans held-for-sale and reclassifications to loans held-for-sale represent non-cash transactions.

- Includes drawdowns under purchased loan commitments.
- Reflects loans previously reclassified to held-for-sale that were not sold and were reclassified back to loans held at amortized cost.
- All loans held at amortized cost which are sold are reclassified to loans held-for-sale on or prior to the date of the sale.

Debt securities held-to-maturity

In 2022, the Bank purchased foreign government debt securities held-to-maturity amounting to CHF 971 million, all related to a portfolio of US Treasury securities.

The Bank’s debt securities held-to-maturity with a carrying value of CHF 921 million as of December 31, 2022 represent a portfolio of US Treasury securities, all rated “AAA” based on the Bank’s internal counterparty rating. US Treasury securities have a history of no credit losses and market price movements mainly reflect changes in market interest rates. Based on this history of no credit losses and the Bank’s view of the current and forecasted economic environment, the Bank expects the risk of non-payment for US Treasuries to be zero and does not have an allowance for credit losses for these securities. The credit quality of these securities is monitored on an ongoing basis and the Bank’s zero-loss expectation is validated on at least a quarterly basis through the Bank’s governance structure involving the Credit Risk and Treasury functions.

- Refer to “Note 16 – Investment securities” for further information.

Other financial assets

The current-period provision for expected credit losses on other financial assets held at amortized cost includes a release of CHF 155 million in 2022 and a provision of CHF 4,307 million in 2021 related to Archegos Capital Management (Archegos). As of

December 31, 2022 and 2021, the allowance for credit losses on brokerage receivables of CHF 4,081 million and CHF 4,186 million, respectively, were primarily related to Archegos.

Allowance for credit losses – other financial assets held at amortized cost

	2022	2021	2020
CHF million			
Balance at beginning of period	4,214	48	43
Current-period provision for expected credit losses	(135)	4,295	19
Gross write-offs	(7)	(8)	(12)
Recoveries	0	0	2
Net write-offs	(7)	(8)	(10)
Foreign currency translation impact and other adjustments, net	46	(121)	(4)
Balance at end of period	4,118	4,214	48
of which individually evaluated	4,096	4,200	15
of which collectively evaluated	22	14	33

In 2022 and 2021, the Bank purchased other financial assets held at amortized cost amounting to CHF 931 million and CHF 196 million, respectively, primarily related to mortgage servicing advances.

Credit quality information

Credit quality of loans held at amortized cost

The following table presents the Bank's carrying value of loans held at amortized cost by aggregated internal counterparty credit ratings "investment grade" and "non-investment grade" that are

used as credit quality indicators for the purpose of this disclosure, by year of origination. Within the line items relating to the origination year, the first year represents the origination year of the current reporting period and the second year represents the origination year of the comparative reporting period.

Consumer loans held at amortized cost by internal counterparty rating

end of	2022				2021			
	Investment grade AAA to BBB	Non-investment grade BB to C	D	Total	Investment grade AAA to BBB	Non-investment grade BB to C	D	Total
CHF million								
Mortgages								
2022 / 2021	12,501	1,540	8	14,049	24,257	2,134	40	26,431
2021 / 2020	21,627	1,396	45	23,068	14,743	1,402	13	16,158
2020 / 2019	12,869	1,111	19	13,999	11,308	1,639	48	12,995
2019 / 2018	10,029	1,271	67	11,367	7,287	812	88	8,187
2018 / 2017	6,609	650	36	7,295	5,318	698	74	6,090
Prior years	34,525	1,931	210	36,666	36,790	2,359	317	39,466
Total term loans	98,160	7,899	385	106,444	99,703	9,044	580	109,327
Revolving loans	229	807	4	1,040	276	930	0	1,206
Total	98,389	8,706	389	107,484	99,979	9,974	580	110,533
Loans collateralized by securities								
2022 / 2021	562	552	0	1,114	2,627	685	0	3,312
2021 / 2020	1,496	381	0	1,877	649	848	0	1,497
2020 / 2019	307	721	0	1,028	61	167	0	228
2019 / 2018	35	143	0	178	32	26	106	164
2018 / 2017	16	25	0	41	55	19	0	74
Prior years	803	188	0	991	804	681	0	1,485
Total term loans	3,219	2,010	0	5,229	4,228	2,426	106	6,760
Revolving loans ¹	30,023	2,124	263	32,410	41,275	3,063	155	44,493
Total	33,242	4,134	263	37,639	45,503	5,489	261	51,253
Consumer finance								
2022 / 2021	2,135	1,005	8	3,148	1,688	823	5	2,516
2021 / 2020	650	334	15	999	538	288	15	841
2020 / 2019	307	200	15	522	285	234	19	538
2019 / 2018	120	183	18	321	98	169	18	285
2018 / 2017	26	87	15	128	21	75	13	109
Prior years	14	80	44	138	13	76	43	132
Total term loans	3,252	1,889	115	5,256	2,643	1,665	113	4,421
Revolving loans	318	42	69	429	348	21	90	459
Total	3,570	1,931	184	5,685	2,991	1,686	203	4,880
Consumer – total								
2022 / 2021	15,198	3,097	16	18,311	28,572	3,642	45	32,259
2021 / 2020	23,773	2,111	60	25,944	15,930	2,538	28	18,496
2020 / 2019	13,483	2,032	34	15,549	11,654	2,040	67	13,761
2019 / 2018	10,184	1,597	85	11,866	7,417	1,007	212	8,636
2018 / 2017	6,651	762	51	7,464	5,394	792	87	6,273
Prior years	35,342	2,199	254	37,795	37,607	3,116	360	41,083
Total term loans	104,631	11,798	500	116,929	106,574	13,135	799	120,508
Revolving loans	30,570	2,973	336	33,879	41,899	4,014	245	46,158
Total	135,201	14,771	836	150,808	148,473	17,149	1,044	166,666

¹ Lombard loans are generally classified as revolving loans.

Corporate & institutional loans held at amortized cost by internal counterparty rating

end of	2022				2021			
	Investment grade	Non-investment grade		Total	Investment grade	Non-investment grade		Total
	AAA to BBB	BB to C	D		AAA to BBB	BB to C	D	
CHF million								
Real estate								
2022 / 2021	3,601	2,499	5	6,105	9,568	4,682	2	14,252
2021 / 2020	7,001	2,441	0	9,442	3,709	1,355	5	5,069
2020 / 2019	3,071	855	4	3,930	1,849	706	2	2,557
2019 / 2018	959	297	56	1,312	925	340	1	1,266
2018 / 2017	698	219	1	918	475	101	0	576
Prior years	2,109	217	24	2,350	2,469	376	30	2,875
Total term loans	17,439	6,528	90	24,057	18,995	7,560	40	26,595
Revolving loans	694	281	125	1,100	778	297	135	1,210
Total	18,133	6,809	215	25,157	19,773	7,857	175	27,805
Commercial and industrial loans								
2022 / 2021	7,858	11,181	263	19,302	8,284	11,985	136	20,405
2021 / 2020	3,576	4,204	212	7,992	3,242	4,468	62	7,772
2020 / 2019	1,810	2,251	178	4,239	2,110	3,903	105	6,118
2019 / 2018	1,566	2,359	130	4,055	1,003	2,256	177	3,436
2018 / 2017	742	1,343	161	2,246	697	937	60	1,694
Prior years	1,619	2,355	204	4,178	2,013	2,848	78	4,939
Total term loans	17,171	23,693	1,148	42,012	17,349	26,397	618	44,364
Revolving loans	10,277	6,799	278	17,354	13,941	7,458	372	21,771
Total	27,448	30,492	1,426	59,366	31,290	33,855	990	66,135
Financial institutions								
2022 / 2021	4,480	1,026	90	5,596	6,360	2,012	51	8,423
2021 / 2020	2,850	856	0	3,706	2,081	201	30	2,312
2020 / 2019	1,034	67	0	1,101	660	127	1	788
2019 / 2018	602	7	0	609	522	151	1	674
2018 / 2017	521	2	1	524	87	19	0	106
Prior years	(940)	71	1	(868)	499	85	1	585
Total term loans	8,547	2,029	92	10,668	10,209	2,595	84	12,888
Revolving loans	10,111	822	110	11,043	7,542	485	1	8,028
Total	18,658	2,851	202	21,711	17,751	3,080	85	20,916
Governments and public institutions								
2022 / 2021	147	22	0	169	521	26	0	547
2021 / 2020	458	35	0	493	157	114	0	271
2020 / 2019	126	40	0	166	94	19	19	132
2019 / 2018	97	1	10	108	46	11	0	57
2018 / 2017	55	0	0	55	28	0	0	28
Prior years	171	15	1	187	199	21	0	220
Total term loans	1,054	113	11	1,178	1,045	191	19	1,255
Revolving loans	9	0	0	9	32	0	0	32
Total	1,063	113	11	1,187	1,077	191	19	1,287
Corporate & institutional – total								
2022 / 2021	16,086	14,728	358	31,172	24,733	18,705	189	43,627
2021 / 2020	13,885	7,536	212	21,633	9,189	6,138	97	15,424
2020 / 2019	6,041	3,213	182	9,436	4,713	4,755	127	9,595
2019 / 2018	3,224	2,664	196	6,084	2,496	2,758	179	5,433
2018 / 2017	2,016	1,564	163	3,743	1,287	1,057	60	2,404
Prior years	2,959	2,658	230	5,847	5,180	3,330	109	8,619
Total term loans	44,211	32,363	1,341	77,915	47,598	36,743	761	85,102
Revolving loans	21,091	7,902	513	29,506	22,293	8,240	508	31,041
Total	65,302	40,265	1,854	107,421	69,891	44,983	1,269	116,143

Total loans held at amortized cost by internal counterparty rating

end of	2022				2021			
	Investment grade	Non-investment grade		Total	Investment grade	Non-investment grade		Total
	AAA to BBB	BB to C	D		AAA to BBB	BB to C	D	
CHF million								
Loans held at amortized cost – total								
2022 / 2021	31,284	17,825	374	49,483	53,305	22,347	234	75,886
2021 / 2020	37,658	9,647	272	47,577	25,119	8,676	125	33,920
2020 / 2019	19,524	5,245	216	24,985	16,367	6,795	194	23,356
2019 / 2018	13,408	4,261	281	17,950	9,913	3,765	391	14,069
2018 / 2017	8,667	2,326	214	11,207	6,681	1,849	147	8,677
Prior years	38,301	4,857	484	43,642	42,787	6,446	469	49,702
Total term loans	148,842	44,161	1,841	194,844	154,172	49,878	1,560	205,610
Revolving loans	51,661	10,875	849	63,385	64,192	12,254	753	77,199
Total loans to third parties	200,503	55,036	2,690	258,229	218,364	62,132	2,313	282,809
Total loans to entities under common control	3,920	30	0	3,950	8,683	0	0	8,683
Total	204,423	55,066	2,690	262,179 ¹	227,047	62,132	2,313	291,492 ¹

¹ Excluded accrued interest on loans held at amortized cost of CHF 534 million and CHF 295 million as of December 31, 2022 and 2021, respectively.

Credit quality of other financial assets held at amortized cost

The following table presents the Bank's carrying value of other financial assets held at amortized cost by aggregated internal counterparty credit ratings "investment grade" and

"non-investment grade", by year of origination. Within the line items relating to the origination year, the first year represents the origination year of the current reporting period and the second year represents the origination year of the comparative reporting period.

Other financial assets held at amortized cost by internal counterparty rating

end of	2022				2021			
	Investment grade	Non-investment grade		Total	Investment grade	Non-investment grade		Total
	AAA to BBB	BB to C	D		AAA to BBB	BB to C	D	
CHF million								
Other financial assets held at amortized cost								
2022 / 2021	0	0	0	0	0	5	0	5
2021 / 2020	0	7	0	7	0	0	0	0
2020 / 2019	0	0	0	0	0	0	0	0
2019 / 2018	0	0	0	0	0	63	0	63
2018 / 2017	0	47	0	47	0	2	0	2
Prior years	0	0	0	0	0	2	0	2
Total term positions	0	54	0	54	0	72	0	72
Revolving positions	0	1,711	0	1,711	0	970	0	970
Total	0	1,765	0	1,765	0	1,042	0	1,042

Includes primarily mortgage servicing advances and failed purchases.

Past due financial assets

Loans held at amortized cost – past due

end of	Current	Past due				Total	Total
		Up to 30 days	31 –60 days	61 –90 days	More than 90 days		
2022 (CHF million)							
Mortgages	107,033	66	43	8	334	451	107,484
Loans collateralized by securities	37,308	43	4	3	281	331	37,639
Consumer finance	5,147	248	82	63	145	538	5,685
Consumer	149,488	357	129	74	760	1,320	150,808
Real estate	24,946	35	49	0	127	211	25,157
Commercial and industrial loans	58,267	320	42	24	713	1,099	59,366
Financial institutions	21,480	72	0	0	159	231	21,711
Governments and public institutions	1,171	5	0	0	11	16	1,187
Corporate & institutional	105,864	432	91	24	1,010	1,557	107,421
Total loans to third parties	255,352	789	220	98	1,770	2,877	258,229
Total loans to entities under common control	3,950	0	0	0	0	0	3,950
Total loans held at amortized cost	259,302	789	220	98	1,770	2,877	262,179 ¹
2021 (CHF million)							
Mortgages	109,877	123	73	61	399	656	110,533
Loans collateralized by securities	51,069	42	0	0	142	184	51,253
Consumer finance	4,449	144	70	60	157	431	4,880
Consumer	165,395	309	143	121	698	1,271	166,666
Real estate	27,628	6	4	0	167	177	27,805
Commercial and industrial loans	65,327	166	13	12	617	808	66,135
Financial institutions	20,807	60	7	1	41	109	20,916
Governments and public institutions	1,252	16	0	0	19	35	1,287
Corporate & institutional	115,014	248	24	13	844	1,129	116,143
Total loans to third parties	280,409	557	167	134	1,542	2,400	282,809
Total loans to entities under common control	8,683	0	0	0	0	0	8,683
Total loans held at amortized cost	289,092	557	167	134	1,542	2,400	291,492 ¹

¹ Excluded accrued interest on loans held at amortized cost of CHF 534 million and CHF 295 million as of December 31, 2022 and 2021, respectively.

As of December 31, 2022 and 2021, the Bank did not have any loans that were more than 90 days past due and still accruing interest. Also, the Bank did not have any debt securities held-to-maturity or other financial assets held at amortized cost that were past due.

Non-accrual financial assets

Non-accrual loans held at amortized cost

	2022				2021			
	Amortized cost of non-accrual assets at beginning of period	Amortized cost of non-accrual assets at end of period	Interest income recognized	Amortized cost of non-accrual assets with no specific allowance at end of period	Amortized cost of non-accrual assets at beginning of period	Amortized cost of non-accrual assets at end of period	Interest income recognized	Amortized cost of non-accrual assets with no specific allowance at end of period
CHF million								
Mortgages	572	383	4	64	418	572	2	111
Loans collateralized by securities	262	283	4	2	105	262	8	2
Consumer finance	205	188	3	8	201	205	3	1
Consumer	1,039	854	11	74	724	1,039	13	114
Real estate	167	127	1	1	324	167	6	0
Commercial and industrial loans	686	801	9	30	913	686	11	96
Financial institutions	41	159	7	0	68	41	0	0
Governments and public institutions	19	11	1	0	0	19	0	0
Corporate & institutional	913	1,098	18	31	1,305	913	17	96
Total loans held at amortized cost	1,952	1,952	29	105	2,029	1,952	30	210

Collateral-dependent financial assets

- Refer to “Note 20 – Financial instruments measured at amortized cost and credit losses” in VI – Consolidated financial statements – Credit Suisse Group for further information on the Bank’s collateral-dependent financial assets.

Troubled debt restructurings and modifications

Restructured financing receivables held at amortized cost

in	2022			2021			2020		
	Number of contracts	Recorded investment – pre-modification	Recorded investment – post-modification	Number of contracts	Recorded investment – pre-modification	Recorded investment – post-modification	Number of contracts	Recorded investment – pre-modification	Recorded investment – post-modification
CHF million, except where indicated									
Loans collateralized by securities	0	0	0	1	33	25	3	165	165
Real estate	1	102	82	1	2	2	0	0	0
Commercial and industrial loans	15	204	182	18	402	394	17	127	95
Financial institutions	0	0	0	1	44	44	0	0	0
Total loans	16	306	264	21	481	465	20	292	260

Restructured financing receivables held at amortized cost that defaulted within 12 months from restructuring

in	2022		2021		2020	
	Number of contracts	Recorded investment	Number of contracts	Recorded investment	Number of contracts	Recorded investment
CHF million, except where indicated						
Loans collateralized by securities	0	0	3	156	0	0
Commercial and industrial loans	0	0	1	14	4	13
Total loans	0	0	4	170	4	13

In 2022, the loan modifications of the Bank mainly included extended loan repayment terms, including postponed loan amortizations and extended maturity dates, interest rate concessions, a waiver of interest, a reduction of a loan commitment, a subordination of loans and changes in collateral coverage terms.

As of December 31, 2022 and 2021, the Bank did not have any commitments to lend additional funds to debtors whose loan terms had been modified in troubled debt restructurings.

20 Goodwill

	Wealth Management	Investment Bank	Swiss Bank	Asset Management	Bank 1
2022					
Gross amount of goodwill (CHF million)					
Balance at beginning of period	1,300	4,855	480	1,101	7,748
Foreign currency translation impact	4	0	1	5	10
Other	(23)	23	0	0	0
Balance at end of period	1,281	4,878	481	1,106	7,758
Accumulated impairment (CHF million)					
Balance at beginning of period	0	4,855	0	0	4,867
Impairment losses	0	23	0	0	23
Balance at end of period	0	4,878	0	0	4,890
Net book value (CHF million)					
Net book value	1,281	0	481	1,106	2,868
2021					
Gross amount of goodwill (CHF million)					
Balance at beginning of period	1,275	4,825	472	1,062	7,646
Foreign currency translation impact	28	30	8	39	105
Other	(3)	0	0	0	(3)
Balance at end of period	1,300	4,855	480	1,101	7,748
Accumulated impairment (CHF million)					
Balance at beginning of period	0	3,879	0	0	3,891
Impairment losses	0	976	0	0	976
Balance at end of period	0	4,855	0	0	4,867
Net book value (CHF million)					
Net book value	1,300	0	480	1,101	2,881

1 Gross amount of goodwill and accumulated impairment included CHF 12 million related to legacy business transferred to the former Strategic Resolution Unit in 4Q15 and fully written off at the time of transfer, in addition to the divisions disclosed.

- Refer to “Note 21 – Goodwill” in VI – Consolidated financial statements – Credit Suisse Group for further information.

21 Other intangible assets

end of	2022			2021		
	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Other intangible assets (CHF million)						
Trade names/trademarks	25	(25)	0	25	(25)	0
Client relationships	29	(9)	20	31	(7)	24
Other	5	(3)	2	5	(3)	2
Total amortizing other intangible assets	59	(37)	22	61	(35)	26
Non-amortizing other intangible assets	430	—	430	250	—	250
of which mortgage servicing rights, at fair value	403	—	403	224	—	224
Total other intangible assets	489	(37)	452	311	(35)	276

Additional information

in	2022	2021	2020
Aggregate amortization and impairment (CHF million)			
Aggregate amortization	4	8	6
Impairment	0	0	2

Estimated amortization

Estimated amortization (CHF million)	
2023	3
2024	3
2025	2
2026	2
2027	2

22 Other assets and other liabilities

end of	2022	2021
Other assets (CHF million)		
Cash collateral on derivative instruments	7,723	7,659
Cash collateral on non-derivative transactions	647	395
Derivative instruments used for hedging ¹	0	212
Assets held-for-sale	16,112	8,020
of which loans ²	16,090	7,924
allowance for loans held-for-sale	(101)	(44)
of which real estate ³	22	94
of which long-lived assets	0	2
Premises and equipment, net and right-of-use assets	5,799	6,140
Assets held for separate accounts	64	98
Interest and fees receivable	2,609	2,934
Deferred tax assets	259	3,666
Prepaid expenses	812	394
of which cloud computing arrangement implementation costs	65	46
Failed purchases	801	1,307
Defined benefit pension and post-retirement plan assets	560	974
Other	6,367	4,916
of which digital asset safeguarding assets	102	—
Other assets	41,753	36,715

end of	2022	2021
Other liabilities (CHF million)		
Cash collateral on derivative instruments	2,079	5,533
Cash collateral on non-derivative transactions	431	528
Derivative instruments used for hedging ¹	154	10
Operating leases liabilities	1,749	1,861
Provisions	1,494	1,912
of which expected credit losses on off-balance sheet credit exposures	217	257
Restructuring liabilities	114	19
Liabilities held for separate accounts	64	98
Interest and fees payable	3,779	3,930
Current tax liabilities	524	671
Deferred tax liabilities	670	122
Failed sales	1,471	1,736
Defined benefit pension and post-retirement plan liabilities	258	343
Other	4,039	4,546
of which digital asset safeguarding liabilities	102	—
Other liabilities	16,826	21,309

¹ Amounts shown after counterparty and cash collateral netting.

² Included as of the end of 2022 and 2021 were CHF 458 million and CHF 391 million, respectively, in restricted loans, which represented collateral on secured borrowings.

- 3 As of the end of 2022 and 2021, real estate held-for-sale included foreclosed or repossessed real estate of CHF 21 million and CHF 8 million, respectively, of which CHF 21 million and CHF 8 million, respectively, were related to residential real estate.

Premises, equipment and right-of-use assets

end of	2022	2021
Premises and equipment (CHF million)		
Buildings and improvements	839	1,084
Land	215	241
Leasehold improvements	1,438	1,578
Software	8,261	7,660
Equipment	990	1,004
Premises and equipment	11,743	11,567
Accumulated depreciation	(7,637)	(7,143)
Total premises and equipment, net	4,106	4,424
Right-of-use assets (CHF million)		
Right-of-use assets	1,693	1,716
Total premises and equipment, net and right-of-use assets	5,799	6,140

Depreciation, amortization and impairment

end of	2022	2021	2020
CHF million			
Depreciation on premises and equipment	997	903	860
Impairment on premises and equipment	250	20	10
Amortization and impairment on right-of-use assets	256	313	284

- Refer to “Note 23 – Leases” for further information on right-of-use assets.

23 Leases

- Refer to “Note 24 – Leases” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Lessee arrangements

Lease costs

end of	2022	2021	2020
Lease costs (CHF million)			
Operating lease costs	279	293	305
Variable lease costs	46	50	45
Sublease income	(65)	(75)	(87)
Total lease costs	260	268	263

During 2021, the Bank entered into 12 sale-leaseback transactions with lease terms ranging from 5 to 10 years. During 2021, the Bank entered into 13 sale-leaseback transactions with lease terms ranging from 3 to 10 years. During 2020, the Bank entered into one sale-leaseback transaction with a lease term of one year.

Other information

end of	2022	2021	2020
Other information (CHF million)			
Gains/(losses) on sale and leaseback transactions	336	225	15
Cash paid for amounts included in the measurement of operating lease liabilities recorded in operating cash flows	(336)	(334)	(340)
Right-of-use assets obtained in exchange of new operating lease liabilities ¹	165	107	32
Changes to right-of-use assets due to lease modifications for operating leases	74	29	26

- ¹ Represents non-cash transactions and includes right-of-use assets relating to changes in classification of scope of variable interest entities.

Weighted average remaining lease term and discount rate

end of	2022	2021
Operating leases		
Remaining lease term (years)	9.2	9.6
Discount rate (%)	3.0	2.8

Maturities relating to operating lease arrangements

end of	2022	2021
Maturity (CHF million)		
Due within 1 year	312	309
Due between 1 and 2 years	260	278
Due between 2 and 3 years	236	234
Due between 3 and 4 years	219	234
Due between 4 and 5 years	186	197
Thereafter	811	919
Operating lease obligations	2,024	2,171
Future interest payable	(275)	(310)
Operating lease liabilities	1,749	1,861

Lessor arrangements

As of December 31, 2022 and 2021, the Bank had approximately CHF 1.3 billion and CHF 1.1 billion, respectively, of residual value guarantees associated with lessor arrangements.

Net investments

end of	2022		2021	
	Sales-type leases	Direct financing leases	Sales-type leases	Direct financing leases
Net investments (CHF million)				
Lease receivables	1,324	2,473	1,107	2,395
Unguaranteed residual assets	129	25	119	80
Valuation allowances	(10)	(20)	(7)	(18)
Total net investments	1,443	2,478	1,219	2,457

Maturities relating to lessor arrangements

end of	2022			2021		
	Sales-type leases	Direct financing leases	Operating leases	Sales-type leases	Direct financing leases	Operating leases
Maturity (CHF million)						
Due within 1 year	550	738	57	467	727	61
Due between 1 and 2 years	317	694	58	263	641	59
Due between 2 and 3 years	224	627	55	179	583	59
Due between 3 and 4 years	149	460	53	113	458	56
Due between 4 and 5 years	88	115	44	62	125	54
Thereafter	93	19	136	83	31	177
Total	1,421	2,653	403	1,167	2,565	466
Future interest receivable	(97)	(180)	—	(60)	(170)	—
Lease receivables	1,324	2,473	—	1,107	2,395	—

As of December 31, 2022 and 2021, the Bank had CHF 188 million and CHF 224 million, respectively, of related party operating leases.

Lease income

end of	2022	2021	2020
Lease income (CHF million)			
Interest income on sales-type leases	33	25	19
Interest income on direct financing leases	70	68	74
Lease income from operating leases	80	93	107
Variable lease income	3	1	0
Total lease income	186	187	200

24 Deposits

end of	2022			2021		
	Switzer-land	Foreign	Total	Switzer-land	Foreign	Total
Deposits (CHF million)						
Non-interest-bearing demand deposits	2,589	1,502	4,091	2,703	2,557	5,260
Interest-bearing demand deposits	102,948	16,295	119,243	153,611	47,415	201,026
Savings deposits	42,437	1,459	43,896	60,027	8,474	68,501
Time deposits	18,695	60,534	79,229 ¹	35,775	102,239	138,014 ¹
Total deposits	166,669	79,790	246,459 ²	252,116	160,685	412,801 ²
of which due to banks	—	—	11,905	—	—	18,960
of which customer deposits	—	—	234,554	—	—	393,841

The designation of deposits in Switzerland versus foreign deposits is based upon the location of the office where the deposit is recorded.

- 1 Included uninsured time deposits of CHF 75,123 million and CHF 128,714 million as of December 31, 2022 and 2021, respectively, which were in excess of any country-specific insurance limit or which are not covered by an insurance regime.
- 2 Not included as of December 31, 2022 and 2021 were CHF 55 million and CHF 86 million, respectively, of overdrawn deposits reclassified as loans.

25 Long-term debt

end of	2022	2021	end of	2022	2021
Long-term debt (CHF million)			Structured notes by product (CHF million)		
Senior	89,187	95,468	Equity	21,437	28,681
Subordinated	59,378	63,836	Fixed income	14,407	11,678
Non-recourse liabilities from consolidated VIEs	2,096	1,391	Credit	2,815	2,363
Long-term debt	150,661	160,695	Other	266	404
of which reported at fair value	57,919	67,788	Total structured notes	38,925	43,126
of which structured notes	38,925	43,126			

Long-term debt by maturities

end of	2023	2024	2025	2026	2027	Thereafter	Total
Long-term debt (CHF million)							
Senior debt							
Fixed rate	4,394	6,515	6,573	5,261	2,251	13,598	38,592
Variable rate	13,297	11,451	7,171	3,961	4,010	10,705	50,595
Interest rates (range in %) ¹	0.0–2.2	0.0–4.8	0.0–7.3	0.0–3.3	0.0–5.0	0.0–7.3	—
Subordinated debt							
Fixed rate	7,458	2,834	6,060	5,948	5,472	8,727	36,499
Variable rate	2,026	3,196	3,168	58	1,536	12,895	22,879
Interest rates (range in %) ¹	1.0–8.0	3.5–6.9	2.6–7.3	0.9–6.4	1.0–9.8	0.7–8.5	—
Non-recourse liabilities from consolidated VIEs							
Fixed rate	804	0	219	0	0	0	1,023
Variable rate	110	9 ²	127	0	41 ²	786	1,073
Interest rates (range in %) ¹	2.3–6.6	—	1.9	—	—	0.0–10.4	—
Total long-term debt	28,089	24,005	23,318	15,228	13,310	46,711	150,661
of which structured notes	9,380	7,860	5,241	2,893	3,076	10,475	38,925

The maturity of perpetual debt is based on the earliest callable date. The maturity of all other debt is based on contractual maturity and includes certain structured notes that have mandatory early redemption features based on stipulated movements in markets or the occurrence of a market event. Within this population there are approximately CHF 0.8 billion of such notes with a contractual maturity of greater than one year that have an observable likelihood of redemption occurring within one year based on a modelling assessment.

- 1 Excludes structured notes for which fair value has been elected as the related coupons are dependent upon the embedded derivatives and prevailing market conditions at the time each coupon is paid.
- 2 Reflects equity linked notes, where the payout is not fixed.

- Refer to “Note 26 – Long-term debt” in VI – Consolidated financial statements – Credit Suisse Group for further information.

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	Gains/ (losses) on cash flow hedges	Cumulative translation adjustments	Unrealized gains/ (losses) on securities ¹	Actuarial gains/ (losses)	Net prior service credit/ (cost)	Gains/ (losses) on liabilities relating to credit risk	AOCI
2022 (CHF million)							
Balance at beginning of period	(95)	(16,760)	13	(429)	(6)	(2,082)	(19,359)
Increase/(decrease)	(454)	(260)	(21)	(170)	(4)	5,987	5,078
Reclassification adjustments, included in net income/(loss)	(768)	0	(5)	17	1	(31)	(786)
Total increase/(decrease)	(1,222)	(260)	(26)	(153)	(3)	5,956	4,292
Balance at end of period	(1,317)	(17,020)	(13)	(582)	(9)	3,874	(15,067)
2021 (CHF million)							
Balance at beginning of period	205	(17,517)	13	(460)	(11)	(2,469)	(20,239)
Increase/(decrease)	(259)	751	0	12	4	284	792
Reclassification adjustments, included in net income/(loss)	(41)	6	0	19	1	103	88
Total increase/(decrease)	(300)	757	0	31	5	387	880
Balance at end of period	(95)	(16,760)	13	(429)	(6)	(2,082)	(19,359)
2020 (CHF million)							
Balance at beginning of period	28	(14,560)	30	(417)	(7)	(2,620)	(17,546)
Increase/(decrease)	90	(2,974)	(49)	(55)	(4)	(6)	(2,998)
Reclassification adjustments, included in net income/(loss)	87	17	32	12	0	157	305
Total increase/(decrease)	177	(2,957)	(17)	(43)	(4)	151	(2,693)
Balance at end of period	205	(17,517)	13	(460)	(11)	(2,469)	(20,239)

1 No impairments on available-for-sale debt securities were recognized in net income/(loss) in 2022, 2021 and 2020.

- Refer to “Note 28 – Tax” and “Note 31 – Pension and other post-retirement benefits” for income tax expense/(benefit) on the movements of accumulated other comprehensive income/(loss).

Details of significant reclassification adjustments

<u>in</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>
Reclassification adjustments, included in net income/(loss) (CHF million)			
Gains/(losses) on cash flow hedges			
Gross gains/(losses)	(959) ¹	(40) ¹	101 ²
Tax expense/(benefit)	191	(1)	(14)
Net of tax	(768)	(41)	87
Actuarial gains/(losses)			
Amortization of recognized actuarial losses ³	21	23	13
Tax expense/(benefit)	(4)	(4)	(1)
Net of tax	17	19	12

- 1 Included in interest and dividend income as well as operating expenses. Refer to “Note 32 – Derivatives and hedging activities” for further information.
- 2 Included in interest and dividend income, trading revenues as well as operating expenses. Refer to “Note 32 – Derivatives and hedging activities” for further information.
- 3 These components are included in the computation of total benefit costs. Refer to “Note 31 – Pension and other post-retirement benefits” for further information.

27 Offsetting of financial assets and financial liabilities

- Refer to “Note 28 – Offsetting of financial assets and financial liabilities” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Offsetting of derivatives

end of	2022		2021	
	Derivative assets	Derivative liabilities	Derivative assets	Derivative liabilities
Gross derivatives subject to enforceable master netting agreements (CHF billion)				
OTC-cleared	8.6	9.8	4.4	4.0
OTC	25.1	23.5	44.5	40.3
Exchange-traded	0.0	0.0	0.1	0.0
Interest rate products	33.7	33.3	49.0	44.3
OTC-cleared	0.3	0.3	0.2	0.2
OTC	24.9	25.5	20.9 ¹	22.9 ¹
Exchange-traded	0.0	0.1	0.0	0.0
Foreign exchange products	25.2	25.9	21.1	23.1
OTC	4.3	7.1	8.2	13.0
Exchange-traded	18.6	18.3	22.7	21.4
Equity/index-related products	22.9	25.4	30.9	34.4
OTC-cleared	0.6	0.6	1.3	1.4
OTC	2.4	2.6	3.3	4.3
Credit derivatives	3.0	3.2	4.6	5.7
OTC-cleared	0.1	0.1	0.0	0.0
OTC	0.9	0.4	1.4	0.5
Exchange-traded	0.0	0.0	0.1	0.1
Other products²	1.0	0.5	1.5	0.6
OTC-cleared	9.6	10.8	5.9	5.6
OTC	57.6	59.1	78.3	81.0
Exchange-traded	18.6	18.4	22.9	21.5
Total gross derivatives subject to enforceable master netting agreements	85.8	88.3	107.1	108.1
Offsetting (CHF billion)				
OTC-cleared	(9.5)	(10.7)	(5.6)	(5.3)
OTC	(50.5)	(52.9)	(69.4) ¹	(75.5) ¹
Exchange-traded	(18.0)	(18.2)	(21.0)	(21.0)
Offsetting	(78.0)	(81.8)	(96.0)	(101.8)
of which counterparty netting	(68.3)	(68.3)	(83.9) ¹	(83.9) ¹
of which cash collateral netting	(9.7)	(13.5)	(12.1)	(17.9)
Net derivatives presented in the consolidated balance sheets (CHF billion)				
OTC-cleared	0.1	0.1	0.3	0.3
OTC	7.1	6.2	8.9	5.5
Exchange-traded	0.6	0.2	1.9	0.5
Total net derivatives subject to enforceable master netting agreements	7.8	6.5	11.1	6.3
Total derivatives not subject to enforceable master netting agreements³	3.3	2.6	6.7	4.3
Total net derivatives presented in the consolidated balance sheets	11.1	9.1	17.8	10.6
of which recorded in trading assets and trading liabilities	11.1	8.9	17.6	10.6
of which recorded in other assets and other liabilities	0.0	0.2	0.2	0.0

¹ Prior period has been revised.

² Primarily precious metals, commodity and energy products.

³ Represents derivatives where a legal opinion supporting the enforceability of netting in the event of default or termination under the agreement is not in place.

Offsetting of securities purchased under resale agreements and securities borrowing transactions

end of	2022			2021		
	Gross	Offsetting	Net book value	Gross	Offsetting	Net book value
Securities purchased under resale agreements and securities borrowing transactions (CHF billion)						
Securities purchased under resale agreements	47.9	(10.7)	37.2	74.1	(16.6)	57.5
Securities borrowing transactions	4.5	0.0	4.5	22.2	0.0	22.2
Total subject to enforceable master netting agreements	52.4	(10.7)	41.7	96.3	(16.6)	79.7
Total not subject to enforceable master netting agreements ¹	17.1	—	17.1	24.2	—	24.2
Total	69.5	(10.7)	58.8 ²	120.5	(16.6)	103.9 ²

1 Represents securities purchased under resale agreements and securities borrowing transactions where a legal opinion supporting the enforceability of netting in the event of default or termination under the agreement is not in place.

2 CHF 40,793 million and CHF 68,623 million of the total net amount as of the end of 2022 and 2021, respectively, were reported at fair value.

Offsetting of securities sold under repurchase agreements and securities lending transactions

end of	2022			2021		
	Gross	Offsetting	Net book value	Gross	Offsetting	Net book value
Securities sold under repurchase agreements and securities lending transactions (CHF billion)						
Securities sold under repurchase agreements	27.8	(10.7)	17.1	32.3	(16.6)	15.7
Securities lending transactions	0.9	0.0	0.9	15.4	0.0	15.4
Obligation to return securities received as collateral, at fair value	2.9	0.0	2.9	14.7	0.0	14.7
Total subject to enforceable master netting agreements	31.6	(10.7)	20.9	62.4	(16.6)	45.8
Total not subject to enforceable master netting agreements ¹	2.5	—	2.5	4.6	—	4.6
Total	34.1	(10.7)	23.4	67.0	(16.6)	50.4
of which securities sold under repurchase agreements and securities lending transactions	31.1	(10.7)	20.4 ²	52.0	(16.6)	35.4 ²
of which obligation to return securities received as collateral, at fair value	3.0	0.0	3.0	15.0	0.0	15.0

1 Represents securities sold under repurchase agreements and securities lending transactions where a legal opinion supporting the enforceability of netting in the event of default or termination under the agreement is not in place.

2 CHF 14,133 million and CHF 13,307 million of the total net amount as of the end of 2022 and 2021, respectively, were reported at fair value.

Amounts not offset in the consolidated balance sheets

end of	2022				2021			
	Net	Financial instruments ¹	Cash collateral received/pledged ¹	Net exposure	Net	Financial instruments ¹	Cash collateral received/pledged ¹	Net exposure
Financial assets subject to enforceable master netting agreements (CHF billion)								
Derivatives	7.8	3.2	0.0	4.6	11.1	4.5	0.0	6.6
Securities purchased under resale agreements	37.2	37.1	0.1	0.0	57.5	57.5	0.0	0.0
Securities borrowing transactions	4.5	4.3	0.0	0.2	22.2	21.9	0.0	0.3
Total financial assets subject to enforceable master netting agreements	49.5	44.6	0.1	4.8	90.8	83.9	0.0	6.9
Financial liabilities subject to enforceable master netting agreements (CHF billion)								
Derivatives	6.5	1.2	0.0	5.3	6.3	1.3	0.0	5.0
Securities sold under repurchase agreements	17.1	17.1	0.0	0.0	15.7	15.6	0.1	0.0
Securities lending transactions	0.9	0.8	0.0	0.1	15.4	15.3	0.0	0.1
Obligation to return securities received as collateral, at fair value	2.9	2.7	0.0	0.2	14.7	13.0	0.0	1.7
Total financial liabilities subject to enforceable master netting agreements	27.4	21.8	0.0	5.6	52.1	45.2	0.1	6.8

- 1 The total amount reported in financial instruments (recognized financial assets and financial liabilities and non-cash financial collateral) and cash collateral is limited to the amount of the related instruments presented in the consolidated balance sheets and therefore any over-collateralization of these positions is not included.

Details of current and deferred taxes

<u>in</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>
Current and deferred taxes (CHF million)			
Switzerland	296	302	151
Foreign	(95)	472	188
Current income tax expense	<u>201</u>	<u>774</u>	<u>339</u>
Switzerland	73	156	367
Foreign	3,699	8	(9)
Deferred income tax expense	<u>3,772</u>	<u>164</u>	<u>358</u>
Income tax expense	<u>3,973</u>	<u>938</u>	<u>697</u>
Income tax expense/(benefit) reported in shareholders' equity related to:			
Gains/(losses) on cash flow hedges	(266)	(62)	25
Cumulative translation adjustment	(7)	4	0
Unrealized gains/(losses) on debt securities	(9)	(4)	(6)
Actuarial gains/(losses)	(84)	0	(19)
Net prior service cost	0	0	1

Reconciliation of taxes computed at the Swiss statutory rate

<u>in</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>
Income/(loss) before taxes (CHF million)			
Switzerland	543	1,659	2,477
Foreign	(3,874)	(1,750)	734
Income/(loss) before taxes	<u>(3,331)</u>	<u>(91)</u>	<u>3,211</u>
Reconciliation of taxes computed at the Swiss statutory rate (CHF million)			
Income tax expense/(benefit) computed at the statutory tax rate ¹	(616)	(17)	642
Increase/(decrease) in income taxes resulting from Foreign tax rate differential	(127)	92	(64)
Non-deductible amortization of other intangible assets and goodwill impairment	0	(181)	0
Other non-deductible expenses	303	369	253
Additional taxable income	5	15	8
Lower taxed income	(144)	(129)	(221)
(Income)/loss taxable to noncontrolling interests	11	12	18
Changes in tax law and rates	24	(29)	(5)
Changes in deferred tax valuation allowance	4,512	612	281
Change in recognition of outside basis difference	(2)	3	(13)
(Windfall tax benefits)/shortfall tax charges on share-based compensation	82	37	75
Other	(75)	154	(277)
Income tax expense	<u>3,973</u>	<u>938</u>	<u>697</u>

¹ The statutory tax rate was 18.5% in 2022 and 2021 and 20% in 2020.

2022

Foreign tax rate differential of CHF 127 million reflected a foreign tax benefit primarily driven by losses in higher tax jurisdictions, mainly in the US and the UK, partially offset by profits made in higher tax jurisdictions, mainly in Brazil. The foreign tax rate expense of CHF 3,604 million comprised not only the foreign tax expense based on statutory tax rates but also the tax impacts related to the following reconciling items.

Other non-deductible expenses of CHF 303 million included the impact of CHF 196 million relating to non-deductible interest expenses and non-deductible funding costs, CHF 154 million relating to non-deductible legacy litigation provisions, CHF 74

million relating to other non-deductible expenses, CHF 8 million relating to non-deductible UK bank levy costs and various smaller items. These expenses were partially offset by the net benefit of CHF 138 million for the reassessment of the interest cost deductibility relating to the recognition of previously unrecognized tax benefits of non-deductible funding.

Lower taxed income of CHF 144 million included a tax benefit of CHF 65 million related to non-taxable life insurance income, CHF 39 million related to non-taxable dividend income, CHF 36 million related to concessionary and lower taxed income and various smaller items.

Changes in deferred tax valuation allowances of CHF 4,512 million primarily related to the reassessment of deferred tax assets as a result of the comprehensive strategic review announced on October 27, 2022, primarily due to the limited future taxable income against which deferred tax assets could be utilized. Management considered both positive and negative evidence and concluded that it is more likely than not that a significant portion of the Bank's deferred tax assets will not be realized. This resulted in an increase in the valuation allowance of CHF 3,655 million, mainly in respect of two of the Bank's operating entities in the US. The net impact also included valuation allowances on deferred tax assets of CHF 817 million related to the current year results, mainly in respect of one of the Bank's operating entities in Switzerland, three of the Bank's operating entities in the US and two of the Bank's operating entities in the UK. This also included an increase in the valuation allowance of CHF 40 million relating to year-end reassessments of deferred tax assets.

Other of CHF 75 million included an income tax benefit of CHF 172 million relating to return-to-provision adjustments and CHF 24 million relating to tax credits. These benefits were partially offset by CHF 57 million relating to the current year US base erosion and anti-abuse tax (BEAT) provision, CHF 45 million relating to the tax impact of an accounting standard implementation transition adjustment for own credit movements and CHF 24 million relating to unrealized mark-to-market results on share-based compensation. The remaining balance included various smaller items.

2021

Foreign tax rate differential of CHF 92 million reflected a foreign tax charge primarily driven by losses in higher tax jurisdictions, mainly in the UK, partially offset by profits made in higher tax jurisdictions, such as the US. The foreign tax rate expense of CHF 480 million comprised not only the foreign tax expense based on statutory tax rates but also the tax impacts related to the following reconciling items.

Other non-deductible expenses of CHF 369 million included the impact of CHF 200 million relating to non-deductible interest expenses and non-deductible costs related to funding and capital (including a contingency accrual of CHF 11 million), CHF 93 million relating to non-deductible legacy litigation provisions, including amounts relating to the Mozambique matter, CHF 39 million relating to non-deductible UK bank levy costs and other non-deductible compensation expenses and management costs,

CHF 28 million relating to other non-deductible expenses and various smaller items.

Lower taxed income of CHF 129 million included a tax benefit of CHF 77 million related to non-taxable life insurance income, CHF 41 million related to non-taxable dividend income, CHF 5 million related to concessionary and lower taxed income, CHF 5 million related to exempt income and various smaller items.

Changes in deferred tax valuation allowances of CHF 612 million included a tax charge from the increase in valuation allowances on deferred tax assets of CHF 771 million, mainly in respect of two of the Bank's operating entities in the UK. This mainly reflected the impact of the loss related to Archegos attributable to the UK operations. Also included was the net impact of the release of valuation allowances on deferred tax assets of CHF 159 million, mainly in respect of one of the Bank's operating entities in Switzerland and another of the Bank's operating entities in Hong Kong.

Other of CHF 154 million included an income charge of CHF 100 million relating to withholding taxes, CHF 51 million relating to the tax impact of an accounting standard implementation transition adjustment for own credit movements and CHF 29 million relating to the current year BEAT provision. These charges were partially offset by CHF 30 million relating to prior years' adjustments. The remaining balance included various smaller items.

2020

Foreign tax rate differential of CHF 64 million reflected a foreign tax benefit primarily driven by losses in higher tax jurisdictions, mainly in the UK, and profits incurred in lower tax jurisdictions, mainly in Singapore, partially offset by profits made in higher tax jurisdictions, such as the US. The foreign tax rate expense of CHF 179 million comprised not only the foreign tax expense based on statutory tax rates but also the tax impacts related to the following reconciling items.

Other non-deductible expenses of CHF 253 million included the impact of CHF 117 million relating to non-deductible interest expenses and non-deductible costs related to funding and capital (including the impact of a previously unrecognized tax benefit of CHF 157 million relating to the resolution of interest costs deductibility with and between international tax authorities, partially offset by a contingency accrual of CHF 41 million), CHF 68 million relating to non-deductible bank levy costs and other non-deductible compensation expenses and management

costs, CHF 46 million relating to non-deductible legacy litigation provisions and CHF 23 million relating to other non-deductible expenses.

Lower taxed income of CHF 221 million included a tax benefit of CHF 79 million related to the revaluations of the equity investments in the SIX Swiss Exchange (SIX) Group AG, Allfunds Group and Pfandbriefbank in Switzerland, CHF 53 million related to concessionary and lower taxed income, CHF 67 million related to non-taxable life insurance income, CHF 19 million related to the transfer of the InvestLab fund platform to Allfunds Group and various smaller items.

Changes in deferred tax valuation allowances of CHF 281 million included a tax charge from the increase in valuation allowances on deferred tax assets of CHF 312 million, mainly in respect of the re-assessment of deferred tax assets reflecting changes in the future profitability of one of the Bank's operating entities in Switzerland of CHF 222 million, and also in respect of one of the Bank's operating entities in the UK. Also included was the net impact of the release of valuation allowances on deferred tax assets of CHF 31 million, mainly in respect of one of the Bank's operating entities in Hong Kong and another of the Bank's operating entities in the UK.

Other of CHF 277 million included an income tax benefit from the re-assessment of the BEAT provision for 2019 of CHF 180 million and the impact of a change in US tax rules relating to federal net operating losses (NOL), where federal NOL generated in tax years 2018, 2019, or 2020 can be carried back for five years instead of no carry back before and also the deductible interest expense limitations for the years 2019 and 2020 have been increased from 30% to 50% of adjusted taxable income for the year, which in aggregate resulted in a benefit of CHF 141 million. Additionally, this included an income tax benefit of CHF 80 million relating to prior years' adjustments and a tax benefit of CHF 34 million relating to the beneficial earnings mix of one of the Bank's operating entities in Switzerland. These benefits were partially offset by CHF 78 million relating to the tax impact of an accounting standard implementation transition adjustment for own credit movements, CHF 61 million relating to withholding taxes, CHF 26 million relating to the current year BEAT provision and the remaining balance included various smaller items.

The US tax reform enacted in December 2017 introduced the BEAT tax regime, effective as of January 1, 2018, for which final regulations were issued by the US Department of Treasury on December 2, 2019. Following the publication of the 2019 financial statements, Credit Suisse continued its analysis of the final regulations, resulting in a revision to the technical application of the prior BEAT estimate. This new information was not available or reasonably knowable at the time of the publication of the 2019 financial statements and resulted in a change of accounting estimate reflected in 2020.

Deferred tax assets and liabilities

<i>end of</i>	2022	2021
Deferred tax assets and liabilities (CHF million)		
Compensation and benefits	638	832
Loans	209	319
Investment securities	992	1,257
Provisions	641	1,357
Leases	229	228
Derivatives	38	46
Real estate	229	250
Net operating loss carry-forwards	7,720	6,382
Goodwill and intangible assets	67	135
Other	418	151
Gross deferred tax assets before valuation allowance	11,181	10,957
Less valuation allowance	(8,488)	(5,338)
Gross deferred tax assets net of valuation allowance	2,693	5,619
Compensation and benefits	(202)	(355)
Loans	(1,190)	(131)
Investment securities	(744)	(722)
Provisions	(282)	(297)
Leases	(219)	(216)
Derivatives	(286)	(218)
Real estate	(43)	(38)
Other	(138)	(98)
Gross deferred tax liabilities	(3,104)	(2,075)
Net deferred tax assets/(liabilities)	(411)	3,544
of which deferred tax assets	259	3,666
of which net operating losses	138	877
of which deductible temporary differences	121	2,789
of which deferred tax liabilities	(670)	(122)

Net deferred tax liabilities of CHF 411 million as of December 31, 2022 decreased CHF 3,955 million compared to net deferred tax assets of CHF 3,544 million as of December 31, 2021, primarily reflecting the valuation allowances relating to the reassessment of the deferred tax assets as a result of the comprehensive strategic review announced on October 27, 2022, as well as valuation allowances relating to current period results. The movement also reflected tax impacts directly recorded in other comprehensive income, mainly related to own credit movements, partially offset by the impact of foreign exchange translation gains, which were included within the currency translation adjustments, and a pension plan re-measurement.

The Bank's valuation allowance against gross deferred tax assets was CHF 8.5 billion as of December 31, 2022 compared to CHF 5.3 billion as of December 31, 2021. This was due to the uncertainty concerning the Bank's ability to generate the necessary amount and mix of taxable income in future periods. The valuation allowance also reflected a decrease due to valuation allowance adjustments recorded in other comprehensive income, mainly related to own credit movements.

Unrecognized deferred tax liabilities

As of December 31, 2022, the Bank had accumulated undistributed earnings from foreign subsidiaries of CHF 17.8 billion. No deferred tax liability was recorded in respect of those amounts, as these earnings are considered indefinitely reinvested. The Bank would need to accrue and pay taxes on these undistributed earnings if such earnings were repatriated. It is not practicable to estimate the amount of unrecognized deferred tax liabilities for these undistributed foreign earnings.

Amounts and expiration dates of net operating loss carry-forwards

end of 2022	Total
Net operating loss carry-forwards (CHF million)	
Due to expire within 1 year	4,008
Due to expire within 2 to 5 years	3,301
Due to expire within 6 to 10 years	4,247
Due to expire within 11 to 20 years	9,118
Amount due to expire	20,674
Amount not due to expire	24,813
Total net operating loss carry-forwards	45,487

Uncertain tax positions

Reconciliation of gross unrecognized tax benefits

in	2022	2021	2020
Movements in gross unrecognized tax benefits (CHF million)			
Balance at beginning of period	425	382	595
Increases in unrecognized tax benefits as a result of tax positions taken during a prior period	239	23	14
Decreases in unrecognized tax benefits as a result of tax positions taken during a prior period	(434)	(35)	(249)
Increases in unrecognized tax benefits as a result of tax positions taken during the current period	46	54	90
Decreases in unrecognized tax benefits as a result of tax positions taken during the current period	(41)	0	0
Decreases in unrecognized tax benefits relating to settlements with tax authorities	(4)	0	(3)
Reductions to unrecognized tax benefits as a result of a lapse of the applicable statute of limitations	(15)	(6)	(17)
Other (including foreign currency translation)	11	7	(48)
Balance at end of period	227	425	382
of which, if recognized, would affect the effective tax rate	227	425	382

Interest and penalties

in	2022	2021	2020
Interest and penalties (CHF million)			
Interest and penalties recognized in the consolidated statements of operations	(5)	3	(16)
Interest and penalties recognized in the consolidated balance sheets	59	64	61

Interest and penalties are reported as tax expense. The Bank is currently subject to ongoing tax audits, inquiries and litigation with the tax authorities in a number of jurisdictions, including Brazil, Germany, Switzerland, the UK and the US. Although the timing

Movements in the valuation allowance

in	2022	2021	2020
Movements (CHF million)			
Balance at beginning of period	5,338	4,323	4,067
Net changes	3,150	1,015	256
Balance at end of period	8,488	5,338	4,323

Tax benefits associated with share-based compensation

in	2022	2021	2020
Tax benefits (CHF million)			
Tax benefits recorded in the consolidated statements of operations ¹	213	227	252

¹ Calculated at the statutory tax rate before valuation allowance considerations.

- Refer to “Note 29 – Employee deferred compensation” for further information on share-based compensation.

of completion is uncertain, it is reasonably possible that some of these will be resolved within 12 months of the reporting date. It is reasonably possible that there will be a decrease of between zero and CHF 14 million in unrecognized tax benefits within 12 months of the reporting date.

The Bank remains open to examination from federal, state, provincial or similar local jurisdictions from the following years onward in these major countries: Switzerland – 2020 (federal and Zurich cantonal level); Brazil – 2017; the UK – 2012; and the US – 2010.

- Refer to “Note 29 – Tax” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Deferred compensation expense

The following tables show the compensation expense for deferred compensation awards granted in 2022 and prior years that was recognized in the consolidated statements of operations during 2022, 2021 and 2020, the total shares delivered, the estimated unrecognized compensation expense for deferred compensation awards granted in 2022 and prior years outstanding as of December 31, 2022 and the remaining requisite service period over which the estimated unrecognized compensation expense will be recognized. The recognition of compensation expense for the deferred compensation awards granted in February 2023 began in 2023 and thus had no impact on the 2022 consolidated financial statements.

- Refer to “Note 30 – Employee deferred compensation” in VI – Consolidated financial statements – Credit Suisse Group for further information on our various awards programs.

Deferred compensation expense

in	2022	2021	2020
Deferred compensation expense (CHF million)			
Share awards	293	466	555
Performance share awards	1 ¹	281	427
Strategic Delivery Plan	235	—	—
Contingent Capital Awards	(4)	194	245
Cash awards	623	370	378
Retention awards	170	123	43
Total deferred compensation expense	1,318	1,434	1,648
Total shares delivered (million)			
Total shares delivered	56.7	55.7	48.3

- 1 Included downward adjustment applied to outstanding performance share awards.

Estimated unrecognized deferred compensation

end of	2022
Estimated unrecognized compensation expense (CHF million)	
Share awards	194
Performance share awards	50
Strategic Delivery Plan	241
Contingent Capital Awards	53
Cash awards	564
Retention awards	338
Total	1,440
Aggregate remaining weighted-average requisite service period (years)	
Aggregate remaining weighted-average requisite service period	1.3

Does not include the estimated unrecognized compensation expense relating to grants made in 2023 for 2022.

Share awards**Share award activities**

	2022		2021		2020	
	Number of share awards in million	Weighted-average grant-date fair value in CHF	Number of share awards in million	Weighted-average grant-date fair value in CHF	Number of share awards in million	Weighted-average grant-date fair value in CHF
Share awards						
Balance at beginning of period	135.3	11.22	115.2	11.82	101.9	13.45
Granted	76.1 ¹	6.21	85.7	11.19	64.0	10.65
Settled	(57.8)	11.26	(50.1)	12.44	(45.1)	13.83
Forfeited	(13.8)	10.13	(15.5)	11.52	(5.6)	11.74
Balance at end of period	139.8	8.59	135.3	11.22	115.2	11.82
of which vested	24.1	—	11.8	—	12.0	—
of which unvested	115.7	—	123.5	—	103.2	—

- 1 Included an adjustment for share awards granted in the fourth quarter of 2022 to compensate for the proportionate dilution of Group shares resulting from the rights offering approved on November 28, 2022. The number of deferred share-based awards held by each individual was increased by 5.64%. The terms and conditions of the adjusted shares were the same as the existing share-based awards, thereby ensuring that holders of the awards were neither advantaged nor disadvantaged by the additional shares granted.

Performance share awards

Performance share awards will no longer be used as a form of deferred compensation award for the 2022 performance year and onwards.

Performance share awards granted for previous years

For compensation year	2022	2021	2020
Performance shares awarded (million)	0.0	18.5	36.6
Value of performance shares awarded (CHF million)	0	154	478

Performance share award activities

	2022		2021		2020	
	Number of performance share awards in million	Weighted-average grant-date fair value in CHF	Number of average performance share awards in million	Weighted-average grant-date fair value in CHF	Number of performance share awards in million	Weighted-average grant-date fair value in CHF
Performance share awards						
Balance at beginning of period	73.8	11.67	88.0	11.67	69.7	13.37
Granted	2.9 ^{1,2}	(14.47) ²	27.4	12.71	48.8	10.63
Settled	(29.7)	11.70	(33.2)	12.50	(28.0)	14.12
Forfeited	(4.9)	11.00	(8.4)	11.78	(2.5)	11.64
Balance at end of period	42.1	9.93	73.8	11.67	88.0	11.67
of which vested	13.5	—	10.4	—	9.6	—
of which unvested	28.6	—	63.4	—	78.4	—

- Included an adjustment for performance share awards granted in the fourth quarter of 2022 to compensate for the proportionate dilution of Group shares resulting from the rights offering approved on November 28, 2022. The number of deferred share-based awards held by each individual was increased by 5.64%. The terms and conditions of the adjusted shares were the same as the existing share-based awards, thereby ensuring that holders of the awards were neither advantaged nor disadvantaged by the additional performance shares granted.
- Included downward adjustment applied to outstanding performance share awards.

Strategic Delivery Plan

Strategic Delivery Plan activities

	2022	
	Number of Strategic Delivery Plan awards in million	Weighted-average grant-date fair value in CHF
Share Delivery Plan		
Balance at beginning of period	—	—
Granted	62.6 ¹	8.12
Settled	0.0	0.00
Forfeited	(3.8)	8.42
Balance at end of period	58.8	8.10
of which vested	6.8	—
of which unvested	52.0	—

- Included an adjustment for Strategic Delivery Plan awards granted in the fourth quarter of 2022 to compensate for the proportionate dilution of Group shares resulting from the rights offering approved on November 28, 2022. The number of deferred share-based awards held by each individual was increased by 5.64%. The terms and conditions of the adjusted shares were the same as the existing share-based awards, thereby ensuring that holders of the awards were neither advantaged nor disadvantaged by the additional Strategic Delivery Plan shares granted.

Contingent Capital Awards

Contingent Capital Awards (CCA) will no longer be used as a form of deferred compensation award for the 2022 performance year and onwards. The Bank granted CCA of CHF 71 million and CHF 245 million in 2022 and 2021, respectively.

Cash awards

Deferred fixed cash awards

The Bank granted deferred fixed cash compensation during 2022, 2021 and 2020 of CHF 294 million, CHF 259 million and CHF 120 million, respectively, in the Investment Bank, Wealth Management and Asset Management divisions. This compensation has been expensed over a three-year vesting period from the grant date. Amortization of this compensation in 2022 totaled CHF 214 million, of which CHF 125 million was related to awards granted in 2022.

Upfront cash awards

The Bank granted upfront cash awards (UCA) of CHF 797 million and CHF 59 million in 2022 and 2021, respectively. These awards are subject to repayment (clawback) by the employee in the event of voluntary resignation, termination for cause or in connection with other specified events or conditions within three years of the award grant. The amount subject to repayment is reduced in equal monthly installments during the three-year period following the grant date. The expense recognition will occur over the three-year vesting period, subject to service conditions. Amortization of this compensation in 2022 totaled CHF 372 million, of which CHF 339 million was related to awards granted in 2022.

Retention awards

The Bank granted deferred cash and share retention awards during 2022 of CHF 355 million, mainly in the Investment Bank division. During 2021 and 2020, the Bank granted deferred cash and share retention awards of CHF 395 million and CHF 40 million, respectively. These awards are expensed over the applicable vesting period from the grant date. Amortization of these awards in 2022 totaled CHF 170 million, of which CHF 65 million was related to awards granted in 2022.

Awards granted for the compensation year 2022

Share awards

On February 10, 2023, the Bank granted 95.3 million share awards with a total value of CHF 267 million. The estimated unrecognized compensation expense of CHF 243 million was

determined based on the fair value of the awards on the grant date, includes the current estimated future forfeitures and will be recognized over the vesting period, subject to early retirement rules.

Share awards granted for previous years

For compensation year	2022	2021	2020
Shares awarded (million)	95.3	26.9	43.5
Value of shares awarded (CHF million)	267	210	576

On February 10, 2023, the Bank granted 5.2 million blocked shares with a total value of CHF 14 million that vested immediately upon grant, have no future service requirements and were attributed to services performed in 2022.

Blocked share awards granted for previous years

For compensation year	2022	2021	2020
Blocked shares awarded (million)	5.2	4.6	2.3
Value of shares awarded (CHF million)	14	38	31

Upfront cash awards

In February 2023, certain managing directors and directors were granted CHF 321 million of UCA as part of their 2022 variable compensation.

Awards granted in 2023

Transformation Awards

In February 2023, the Bank granted Transformation Awards, with a total award value of CHF 260 million, to employees identified as being critical to the delivery of the transformation strategy.

For employees other than the Executive Board, the Transformation Award was granted in the form of both a deferred cash award and a deferred share award subject to performance conditions.

Other awards

In the first quarter of 2023, the Bank granted additional compensation awards to certain employees. Share-based awards of CHF 38 million and deferred fixed cash compensation of CHF 30 million were granted to key employees. These awards will be expensed over a three-year vesting period from the grant date. In addition, Supplemental Cash Allowance Awards of CHF 114 million were granted to certain employees and will be expensed over a nine-month vesting period from the grant date.

The Group owns all of the Bank's outstanding voting registered shares. The Bank is involved in significant financing and other transactions with subsidiaries of the Group. The Bank generally enters into these transactions in the ordinary course of business and believes that these transactions are generally on market terms that could be obtained from unrelated third parties.

- Refer to "Note 31 – Related parties" in VI – Consolidated financial statements – Credit Suisse Group for further information.

Related party assets and liabilities

end of	2022	2021
Assets (CHF million)		
Trading assets	42	0
Net loans	3,949	8,683
Other assets	86	98
Total assets	4,077	8,781
Liabilities (CHF million)		
Due to banks/customer deposits	1,320	1,022
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	91	94
Short-term borrowings	2,075	5,944
Long-term debt	56,822	55,998
Other liabilities	1,284	1,051
Total liabilities	61,592	64,109

Related party revenues and expenses

in	2022	2021	2020
Revenues (CHF million)			
Interest and dividend income	13	(56)	(39)
Interest expense	(2,506)	(1,673)	(1,618)
Net interest income	(2,493)	(1,729)	(1,657)
Commissions and fees	82	102	114
Other revenues	246	212	104
Net revenues	(2,165)	(1,415)	(1,439)
Expenses (CHF million)			
Total operating expenses	2,326	2,089	1,967

Related party guarantees and commitments

end of	2022	2021
Guarantees and commitments (CHF million)		
Credit guarantees and similar instruments	4	4
Revocable loan commitments	59	87

- Refer to "Note 23 – Leases" for information about related party leases.

Executive Board and Board of Directors loans

	2022	2021	2020
Executive Board loans (CHF million)			
Balance at beginning of period	18¹	13	32
Additions	1	10 ²	5
Reductions	(13)	(5) ²	(24)
Balance at end of period	6¹	18²	13
Board of Directors loans (CHF million)			
Balance at beginning of period	7³	9	9
Additions	0	2	0
Reductions	(3)	(4)	0
Balance at end of period	4³	7	9

- The number of individuals with outstanding loans was eight at the beginning of the year and four at the end of the year.
- Revised.
- The number of individuals with outstanding loans was three at the beginning of the year and two at the end of the year.

Liabilities due to own pension plans

Liabilities due to the Bank's own defined benefit pension plans as of December 31, 2022 and 2021 of CHF 254 million and CHF 331 million, respectively, were reflected in various liability accounts in the Bank's consolidated balance sheets.

The Bank participates in a defined benefit pension plan sponsored by the Group and has defined contribution pension plans, single-employer defined benefit pension plans and other post-retirement defined benefit plans. The Bank's principal plans are located in Switzerland, the US and the UK.

- Refer to "Note 32 – Pension and other post-retirement benefits" in VI – Consolidated financial statements – Credit Suisse Group for further information on pension and other post-retirement benefits.

Defined contribution pension plans

The Bank contributes to various defined contribution pension plans primarily in Switzerland, the US and the UK as well as other countries throughout the world. During 2022, 2021 and 2020, the Bank contributed to these plans and recognized as expense CHF 211 million, CHF 235 million and CHF 240 million, respectively. This included expenses of CHF 69 million, CHF 89 million and CHF 96 million in 2022, 2021 and 2020, respectively, related to the Swiss defined contribution pension plan which took effect on January 1, 2020. Contributions to the Swiss defined contribution plan are made by employees and the Group. Assets from this plan are paid out as a lump sum on retirement.

Defined benefit pension and other post-retirement benefit plans

Defined benefit pension plans

Group pension plan

The Bank covers pension requirements for its employees in Switzerland by participating in a defined benefit pension plan sponsored by the Group (Group plan), the Group's most significant defined benefit pension plan. The Group plan provides benefits in the event of retirement, death and disability. Various legal entities within the Group participate in the Group plan, which is set up as an independent trust domiciled in Zurich. Benefits in the Group plan are determined on the basis of the accumulated employer and employee contributions and accumulated interest credited. In accordance with US GAAP, the Group accounts for the Group plan as a single-employer defined benefit pension plan and uses the projected unit credit actuarial method to determine the net periodic benefit costs, the PBO and the accumulated benefit obligation (ABO). The Bank accounts for the defined benefit pension plan sponsored by the Group as a multi-employer pension plan because other legal entities within the Group also participate in the Group plan and the assets contributed by the Bank are not segregated into a separate account or restricted to provide benefits only to employees of the Bank. The assets contributed by the Bank are commingled with the assets contributed by the other legal entities of the Group and can be used to provide benefits to any employee of any participating legal entity. The Bank's

contributions to the Group plan comprise 83% of the total cash contributions contributed to the Group plan by all participating legal entities on an annual basis.

The Bank accounts for the Group plan on a defined contribution basis whereby it only recognizes the amounts required to be contributed to the Group plan during the period as net periodic pension expense and only recognizes a liability for any contributions due and unpaid. No other expenses or balance sheet amounts related to the Group plan were recognized by the Bank. In the savings section of the Group plan, the Bank's contribution varies between 7.5% and 25.0% of the pensionable salary depending on the employee's age.

During 2022, 2021 and 2020, the Bank contributed and recognized as expense CHF 215 million, CHF 248 million and CHF 249 million to the Group plan, respectively. The Bank expects to contribute CHF 225 million to the Group plan during 2023.

International pension plans

Various defined benefit pension plans cover the Bank's employees outside Switzerland. These plans provide benefits in the event of retirement, death, disability or termination of employment. Retirement benefits under the plans depend on age, contributions and salary. The Bank's principal defined benefit pension plans outside Switzerland are located in the US and in the UK. Both plans are funded, closed to new participants and have ceased accruing new benefits. Smaller defined benefit pension plans, both funded and unfunded, are operated in other locations.

Other post-retirement defined benefit plan

In the US, the Bank has a defined benefit plan that provides post-retirement benefits other than pension benefits that primarily focus on health and welfare benefits for certain retired employees. In exchange for the current services provided by the employee, the Bank promises to provide health and welfare benefits after the employee retires. The Bank's obligation for that compensation is incurred as employees render the services necessary to earn their post-retirement benefits.

Net periodic benefit costs of defined benefit plans

The net periodic benefit costs for defined benefit pension and other post-retirement defined benefit plans are the costs of the respective plan for a period during which an employee renders services. The actual amount to be recognized is determined using the standard actuarial methodology which considers, among other factors, current service cost, interest cost, expected return on plan assets and the amortization of both prior service costs/(credits) and actuarial losses/(gains) recognized in AOCI.

Components of net periodic benefit costs

in	International single-employer defined benefit pension plans			Other post-retirement defined benefit plan		
	2022	2021	2020	2022	2021	2020
Net periodic benefit costs (CHF million)						
Service costs on benefit obligation	14	14	14	0	0	0
Interest costs on benefit obligation	58	49	68	3	2	4
Expected return on plan assets	(67)	(65)	(85)	0	0	0
Amortization of recognized prior service cost/(credit)	1	1	1	0	0	0
Amortization of recognized actuarial losses/(gains)	9	14	13	1	1	1
Settlement losses/(gains)	11	8	(1)	0	0	0
Net periodic benefit costs/(credits)	26	21	10	4	3	5

Service costs on benefit obligation are reflected in compensation and benefits. Other components of net periodic benefit costs are reflected in general and administrative expenses.

Benefit obligation

The “Obligations and funded status of the plans” table shows the changes in the PBO, the ABO, the fair value of plan assets and the amounts recognized in the consolidated balance sheets for the international single-employer defined benefit pension plans and other post-retirement defined benefit plans.

Obligations and funded status of the plans

in / end of	International single-employer defined benefit pension plans		Other post-retirement defined benefit plan	
	2022	2021	2022	2021
PBO (CHF million) ¹				
Beginning of the measurement period	3,022	3,475	140	156
Service cost	14	14	0	0
Interest cost	58	49	3	2
Plan amendments	4	(4)	0	0
Settlements	(37)	(448)	0	0
Actuarial losses/(gains)	(908)	(100)	(27)	(14)
Benefit payments	(71)	(65)	(11)	(10)
Exchange rate losses/(gains)	(185)	101	2	6
End of the measurement period	1,897	3,022	107	140
Fair value of plan assets (CHF million)				
Beginning of the measurement period	3,802	4,212	0	0
Actual return on plan assets	(1,132)	(45)	0	0
Employer contributions	16	16	11	10
Settlements	(37)	(448)	0	0
Benefit payments	(71)	(65)	(11)	(10)
Exchange rate gains/(losses)	(262)	132	0	0
End of the measurement period	2,316	3,802	0	0
Total funded status recognized (CHF million)				
Funded status of the plan – over/(underfunded)	419	780	(107)	(140)
Funded status recognized in the consolidated balance sheet as of December 31	419	780	(107)	(140)
Total amount recognized (CHF million)				
Noncurrent assets	559	975	0	0
Current liabilities	(7)	(7)	(10)	(10)
Noncurrent liabilities	(133)	(188)	(97)	(130)
Net amount recognized in the consolidated balance sheet as of December 31	419	780	(107)	(140)
ABO (CHF million) ²				
End of the measurement period	1,880	2,996	107	140

1 Including estimated future salary increases.

2 Excluding estimated future salary increases.

The net amount recognized in the consolidated balance sheets as of December 31, 2022 and 2021 was an overfunding of CHF 312 million and CHF 640 million, respectively.

The settlements of CHF 448 million on the international plans recorded as of December 31, 2021 mainly related to settlements in the UK, reflecting an enhanced transfer value exercise, and settlements in the US, reflecting a partial sale of pension obligations sold to a third party insurer.

In 2023, the Bank expects to contribute CHF 14 million to the international single-employer defined benefit pension plans and CHF 10 million to other post-retirement defined benefit plans.

PBO or ABO in excess of plan assets

The following table shows the aggregate PBO and ABO, as well as the aggregate fair value of plan assets for those plans with PBO in excess of plan assets and those plans with ABO in excess of plan assets as of December 31, 2022 and 2021, respectively.

Defined benefit pension plans in which PBO or ABO exceeded plan assets

December 31	PBO exceeds fair value of plan assets		ABO exceeds fair value of plan assets	
	2022	2021	2022	2021
PBO/ABO exceeded plan assets (CHF million)				
PBO	809	402	146	393
ABO	797	382	135	375
Fair value of plan assets	669	208	6	200

Amounts recognized in AOCI and OCI

The following table shows the actuarial gains/(losses) and the prior service credits/(costs), which were recorded in AOCI and subsequently recognized as components of net periodic benefit costs.

Amounts recognized in AOCI, net of tax

end of	International single-employer defined benefit pension plans		Other post-retirement defined benefit plan		Total	
	2022	2021	2022	2021	2022	2021
Amounts recognized in AOCI (CHF million)						
Actuarial gains/(losses)	(576)	(402)	(6)	(27)	(582)	(429)
Prior service credits/(costs)	(12)	(9)	3	3	(9)	(6)
Total	(588)	(411)	(3)	(24)	(591)	(435)

The following table shows the changes in other comprehensive income (OCI) due to actuarial gains/(losses), the prior service credits/(costs) recognized in AOCI during 2022 and 2021 as well

as the amortization of the aforementioned items as components of net periodic benefit costs for these periods.

Amounts recognized in OCI

in	International single-employer defined benefit pension plans			Other post-retirement defined benefit plan			Total net
	Gross	Tax	Net	Gross	Tax	Net	
2022 (CHF million)							
Actuarial gains/(losses)	(284)	94	(190)	27	(7)	20	(170)
Prior service credits/(costs)	(4)	0	(4)	0	0	0	(4)
Amortization of actuarial losses/(gains)	9	(1)	8	1	0	1	9
Amortization of prior service costs/(credits)	1	0	1	0	0	0	1
Immediate recognition due to curtailment/settlement	11	(3)	8	0	0	0	8
Total	(267)	90	(177)	28	(7)	21	(156)
2021 (CHF million)							
Actuarial gains/(losses)	(10)	12	2	14	(3)	11	13
Prior service credits/(costs)	4	(1)	3	0	0	0	3
Amortization of actuarial losses/(gains)	14	(3)	11	1	0	1	12
Amortization of prior service costs/(credits)	1	0	1	0	0	0	1
Immediate recognition due to curtailment/settlement	8	(1)	7	0	0	0	7
Total	17	7	24	15	(3)	12	36

Assumptions

The measurement of both the net periodic benefit costs and the benefit obligation is determined using explicit assumptions, each of which individually represents the best estimate of a particular future event.

Weighted-average assumptions used to determine net periodic benefit costs and benefit obligation

December 31	International single-employer defined benefit pension plans			Other post-retirement defined benefit plan		
	2022	2021	2020	2022	2021	2020
Net periodic benefit cost (%)						
Discount rate – service cost	2.90	2.64	2.62	—	—	—
Discount rate – interest cost	2.10	1.56	2.37	2.23	1.74	2.77
Salary increases	3.32	2.97	2.84	—	—	—
Expected long-term rate of return on plan assets	2.01	1.79	2.37	—	—	—
Benefit obligation (%)						
Discount rate	4.75	2.13	1.66	5.18	2.89	2.55
Salary increases	3.18	3.32	2.97	—	—	—

Mortality tables and life expectancies for major plans

December 31		Life expectancy at age 65 for a male member currently				Life expectancy at age 65 for a female member currently			
		aged 65		aged 45		aged 65		aged 45	
		2022	2021	2022	2021	2022	2021	2022	2021
Life expectancy (years)									
UK	SAPS S3 light tables ¹	23.5	23.5	24.8	24.7	25.1	25.0	26.5	26.4
US	Pri-2012 mortality tables ²	20.7	20.6	21.9	21.8	22.6	22.5	23.7	23.7

- 102% of Self-Administered Pension Scheme (SAPS) S3 light tables were used, which included CMI projections, with a long-term rate of improvement of 1.25% per annum.
- The Private retirement plan 2012 (Pri-2012) mortality tables were used, with projections based on the Social Security Administration's intermediate improvement scale.

Health care cost assumptions

The health care cost trend is used to determine the appropriate other post-retirement defined benefit costs. In determining those costs, an annual weighted-average rate is assumed in the cost of covered health care benefits.

The following table provides an overview of the assumed health care cost trend rates.

Health care cost trend rates

in / end of	2022	2021	2020
Health care cost trend rate (%)			
Annual weighted-average health care cost trend rate ¹	6.3	6.5	7.0

- The annual health care cost trend rate is assumed to decrease gradually to achieve the long-term health care cost trend rate of 4.5% by 2030.

The annual health care cost trend rate used to determine the net periodic defined benefit costs for 2023 is 6.3%.

Plan assets and investment strategy

As of December 31, 2022 and 2021, no Group debt or equity securities were included in plan assets for the international single-employer defined benefit pension plans.

Fair value of plan assets

The following table presents the plan assets measured at fair value on a recurring basis as of December 31, 2022 and 2021, for the Bank's defined benefit pension plans.

Plan assets measured at fair value on a recurring basis

end of	2022					2021				
	Level 1	Level 2	Level 3	Assets measured at net asset value per share	Total	Level 1	Level 2	Level 3	Assets measured at net asset value per share	Total
Plan assets at fair value (CHF million)										
Cash and cash equivalents	28	90	0	0	118	9	101	0	0	110
Debt securities	1,222	522	0	326	2,070	2,328	769	0	434	3,531
of which governments	1,222	44	0	0	1,266	2,328	4	0	0	2,332
of which corporates	0	478	0	326	804	0	765	0	434	1,199
Equity securities	0	61	0	45	106	0	44	0	57	101
Alternative investments	0	(59)	0	0	(59)	0	(27)	0	0	(27)
of which other	0	(59) ¹	0	0	(59)	0	(27) ¹	0	0	(27)
Other investments	0	81	0	0	81	0	87	0	0	87
Total plan assets at fair value	1,250	695	0	371	2,316	2,337	974	0	491	3,802

1 Primarily related to derivative instruments.

Plan asset allocation

The following table shows the plan asset allocation as of the measurement date calculated based on the fair value at that date.

Plan asset allocation

December 31	2022	2021
Weighted-average (%)		
Cash and cash equivalents	5.1	2.9
Debt securities	89.4	92.9
Equity securities	4.5	2.6
Alternative investments	(2.5)	(0.7)
Insurance	3.5	2.3
Total	100.0	100.0

The following table shows the target plan asset allocation for 2023 in accordance with the Bank's investment strategy.

2023 target plan asset allocation

Weighted-average (%)	
Cash and cash equivalents	1.1
Debt securities	91.7
Equity securities	3.7
Insurance	3.5
Total	100.0

Estimated future benefit payments

The following table shows the estimated future benefit payments for defined benefit pension and other post-retirement defined benefit plans.

Estimated future benefit payments

	International single-employer defined benefit pension plans	Other post-retirement defined benefit plan
Payments (CHF million)		
2023	127	10
2024	108	10
2025	115	10
2026	118	9
2027	116	9
For five years thereafter	585	36

- Refer to “Note 33 – Derivatives and hedging activities” in VI – Consolidated financial statements – Credit Suisse Group for further information.

flows for forecasted transactions, excluding those forecasted transactions related to the payment of variable interest on existing financial instruments, was 12 months.

Hedge accounting

Cash flow hedges

As of the end of 2022, the maximum length of time over which the Bank hedged its exposure to the variability in future cash

Fair value of derivative instruments

end of 2022	Trading			Hedging ¹		
	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)
Derivative instruments (CHF billion)						
Forwards and forward rate agreements	2,088.2	1.7	1.7	0.0	0.0	0.0
Swaps	9,140.3	24.3	21.7	130.1	0.1	1.8
Options bought and sold (OTC)	644.4	8.2	8.6	0.0	0.0	0.0
Futures	144.9	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	35.9	0.0	0.0	0.0	0.0	0.0
Interest rate products	12,053.7	34.2	32.0	130.1	0.1	1.8
Forwards	701.4	8.7	10.0	17.7	0.1	0.2
Swaps	353.5	14.3	13.5	0.0	0.0	0.0
Options bought and sold (OTC)	167.5	2.5	2.7	0.0	0.0	0.0
Futures	4.1	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	2.8	0.0	0.0	0.0	0.0	0.0
Foreign exchange products	1,229.3	25.5	26.2	17.7	0.1	0.2
Forwards	0.3	0.0	0.0	0.0	0.0	0.0
Swaps	22.8	0.9	0.7	0.0	0.0	0.0
Options bought and sold (OTC)	181.4	5.2	7.5	0.0	0.0	0.0
Futures	42.0	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	469.3	18.9	18.5	0.0	0.0	0.0
Equity/index-related products	715.8	25.0	26.7	0.0	0.0	0.0
Credit derivatives ²	352.0	3.2	3.4	0.0	0.0	0.0
Forwards	6.9	0.1	0.1	0.0	0.0	0.0
Swaps	9.5	0.7	0.4	0.0	0.0	0.0
Options bought and sold (OTC)	8.8	0.1	0.1	0.0	0.0	0.0
Futures	12.6	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	2.7	0.1	0.0	0.0	0.0	0.0
Other products ³	40.5	1.0	0.6	0.0	0.0	0.0
Total derivative instruments	14,391.3	88.9	88.9	147.8	0.2	2.0

The notional amount, PRV and NRV (trading and hedging) was CHF 14,539.1 billion, CHF 89.1 billion and CHF 90.9 billion, respectively, as of December 31, 2022.

- Relates to derivative contracts that qualify for hedge accounting under US GAAP.
- Primarily credit default swaps.
- Primarily precious metals, commodity and energy products.

Fair value of derivative instruments (continued)

end of 2021	Trading			Hedging 1		
	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)
Derivative instruments (CHF billion)						
Forwards and forward rate agreements	1,736.0	0.9	0.9	0.0	0.0	0.0
Swaps	8,818.8	36.9	33.0	127.5	0.4	0.2
Options bought and sold (OTC)	779.0	11.5	10.9	0.0	0.0	0.0
Futures	144.5	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	71.6	0.1	0.0	0.0	0.0	0.0
Interest rate products	11,549.9	49.4	44.8	127.5	0.4	0.2
Forwards	1,052.9	7.6	8.2	21.1	0.1	0.1
Swaps	345.3	11.3	12.4	0.0	0.0	0.0
Options bought and sold (OTC)	235.4 ²	2.9 ²	3.1 ²	0.0	0.0	0.0
Futures	10.3	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	1.6	0.0	0.0	0.0	0.0	0.0
Foreign exchange products	1,645.5	21.8	23.7	21.1	0.1	0.1
Forwards	0.9	0.1	0.0	0.0	0.0	0.0
Swaps	94.7	1.4	2.6	0.0	0.0	0.0
Options bought and sold (OTC)	243.9	11.1	12.5	0.0	0.0	0.0
Futures	46.3	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	535.8	22.9	21.5	0.0	0.0	0.0
Equity/index-related products	921.6	35.5	36.6	0.0	0.0	0.0
Credit derivatives ³	506.8	5.0	6.3	0.0	0.0	0.0
Forwards	9.9	0.2	0.1	0.0	0.0	0.0
Swaps	12.0	1.1	0.4	0.0	0.0	0.0
Options bought and sold (OTC)	11.1	0.2	0.1	0.0	0.0	0.0
Futures	11.1	0.0	0.0	0.0	0.0	0.0
Options bought and sold (exchange-traded)	9.2	0.1	0.1	0.0	0.0	0.0
Other products ⁴	53.3	1.6	0.7	0.0	0.0	0.0
Total derivative instruments	14,677.1	113.3	112.1	148.6	0.5	0.3

The notional amount, PRV and NRV (trading and hedging) was CHF 14,825.7 billion, CHF 113.8 billion and CHF 112.4 billion, respectively, as of December 31, 2021.

- 1 Relates to derivative contracts that qualify for hedge accounting under US GAAP.
- 2 Prior period has been revised.
- 3 Primarily credit default swaps.
- 4 Primarily precious metals, commodity and energy products.

Gains or (losses) on fair value hedges

in	2022	2021	2020
Interest rate products (CHF million)			
Hedged items ¹	4,677	1,523	(1,679)
Derivatives designated as hedging instruments ¹	(4,355)	(1,448)	1,564

The accrued interest on fair value hedges is recorded in net interest income and is excluded from this table.

- 1 Included in net interest income.

Hedged items in fair value hedges

end of	2022			2021		
	Hedged items		Discontinued hedges ²	Hedged items		Discontinued hedges ²
	Carrying amount	Hedging adjustments ¹		Carrying amount	Hedging adjustments ¹	
Assets (CHF billion)						
Investment securities	0.8	(0.1)	0.0	0.8	0.0	0.0
Net loans	29.0	(1.3)	(0.7)	16.6	(0.2)	0.2
Liabilities (CHF billion)						
Long-term debt	72.0	(1.0)	(4.4)	65.6	(0.1)	0.8

1 Relates to the cumulative amount of fair value hedging adjustments included in the carrying amount.

2 Relates to the cumulative amount of fair value hedging adjustments remaining for any hedged items for which hedge accounting has been discontinued.

Cash flow hedges

in	2022	2021	2020
Interest rate products (CHF million)			
Gains/(losses) recognized in AOCI on derivatives	(474)	(314)	134
Gains/(losses) reclassified from AOCI into interest and dividend income	1,018	7	(70)
Foreign exchange products (CHF million)			
Gains/(losses) recognized in AOCI on derivatives	(56)	(9)	(33)
Trading revenues	0	0	(30)
Total other operating expenses	(60)	34	(2)
Gains/(losses) reclassified from AOCI into income	(60)	34	(32)
Gains/(losses) excluded from the assessment of effectiveness reported in trading revenues ¹	0	0	1

1 Relates to the forward points of a foreign currency forward.

The net loss associated with cash flow hedges expected to be reclassified from AOCI within the next 12 months was CHF 538 million.

Net investment hedges

in	2022	2021	2020
Foreign exchange products (CHF million)			
Gains/(losses) recognized in the cumulative translation adjustments section of AOCI	(15)	51	451
Gains/(losses) reclassified from the cumulative translation adjustments section of AOCI into other revenues	0	0	10

Contingent credit risk

end of	2022				2021			
	Bilateral counterparties	Special purpose entities	Accelerated terminations	Total	Bilateral counterparties	Special purpose entities	Accelerated terminations	Total
	Contingent credit risk (CHF billion)							
Current net exposure	1.2	0.1	0.1	1.4	2.3	0.0	0.3	2.6
Collateral posted	1.0	0.1	—	1.1	1.9	0.0	—	1.9

The Bank includes all derivative instruments not included in hedge accounting relationships in its trading activities.

- Refer to “Note 7 – Trading revenues” for gains and losses on trading activities by product type.

Disclosures relating to contingent credit risk

The following table provides the Bank’s current net exposure from contingent credit risk relating to derivative contracts with bilateral counterparties and special purpose entities (SPEs) that include credit support agreements, the related collateral posted and the additional collateral that could be called by counterparties in a one, two or three-notch downgrade in the contractually specified credit ratings. The table also includes derivative contracts with contingent credit risk features without credit support agreements that have accelerated termination event conditions. The current net exposure for derivative contracts with bilateral counterparties and contracts with accelerated termination event conditions is the aggregate fair value of derivative instruments that were in a net liability position. For SPEs, the current net exposure is the contractual amount that is used to determine the collateral payable in the event of a downgrade. The contractual amount could include both the negative replacement value and a percentage of the notional value of the derivative.

Impact of a one-notch downgrade event	<u>0.4</u>	<u>0.0</u>	<u>0.1</u>	<u>0.5</u>	<u>0.1</u>	<u>0.0</u>	<u>0.0</u>	<u>0.1</u>
Impact of a two-notch downgrade event	<u>0.5</u>	<u>0.1</u>	<u>0.2</u>	<u>0.8</u>	<u>0.2</u>	<u>0.0</u>	<u>0.0</u>	<u>0.2</u>
Impact of a three-notch downgrade event	<u>0.5</u>	<u>0.1</u>	<u>0.2</u>	<u>0.8</u>	<u>0.7</u>	<u>0.0</u>	<u>0.1</u>	<u>0.8</u>

The impact of a downgrade event reflects the amount of additional collateral required for bilateral counterparties and special purpose entities and the amount of additional termination expenses for accelerated terminations, respectively.

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Credit derivatives

- Refer to “Note 33 – Derivatives and hedging activities” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Credit protection sold/purchased

The following tables do not include all credit derivatives and differ from the credit derivatives in the “Fair value of derivative instruments” table. This is due to the exclusion of certain credit derivative instruments under US GAAP, which defines a credit derivative as a derivative instrument (a) in which one or more of its

underlyings are related to the credit risk of a specified entity (or a group of entities) or an index based on the credit risk of a group of entities and (b) that exposes the seller to potential loss from credit risk-related events specified in the contract.

Total return swaps (TRS) of CHF 5.9 billion and CHF 12.0 billion as of December 31, 2022 and 2021, respectively, were also excluded because a TRS does not expose the seller to potential loss from credit risk-related events specified in the contract. A TRS only provides protection against a loss in asset value and not against additional amounts as a result of specific credit events.

Credit protection sold/purchased

end of	2022					2021				
	Credit protection sold	Credit protection purchased ¹	Net credit protection (sold)/ purchased	Other protection purchased	Fair value of credit protection sold	Credit protection sold	Credit protection purchased ¹	Net credit protection (sold)/ purchased	Other protection purchased	Fair value of credit protection sold
Single-name instruments (CHF billion)										
Investment grade ²	(52.8)	48.6	(4.2)	10.6	0.2	(60.2)	55.6	(4.6)	10.1	0.6
Non-investment grade	(22.3)	20.7	(1.6)	4.9	(0.2)	(31.5)	28.9	(2.6)	7.9	0.4
Total single-name instruments	(75.1)	69.3	(5.8)	15.5	0.0	(91.7)	84.5	(7.2)	18.0	1.0
of which sovereign	(12.8)	11.3	(1.5)	4.4	(0.1)	(13.5)	12.2	(1.3)	4.0	(0.1)
of which non-sovereign	(62.3)	58.0	(4.3)	11.1	0.1	(78.2)	72.3	(5.9)	14.0	1.1
Multi-name instruments (CHF billion)										
Investment grade ²	(54.3)	50.8	(3.5)	8.9	0.1	(102.9)	96.0	(6.9)	20.2	0.7
Non-investment grade	(30.9)	28.4	(2.5)	9.5 ³	(0.6)	(35.7)	33.2	(2.5)	12.6 ³	(0.5)
Total multi-name instruments	(85.2)	79.2	(6.0)	18.4	(0.5)	(138.6)	129.2	(9.4)	32.8	0.2
of which non-sovereign	(85.2)	79.2	(6.0)	18.4	(0.5)	(138.6)	129.2	(9.4)	32.8	0.2
Total instruments (CHF billion)										
Investment grade ²	(107.1)	99.4	(7.7)	19.5	0.3	(163.1)	151.6	(11.5)	30.3	1.3
Non-investment grade	(53.2)	49.1	(4.1)	14.4	(0.8)	(67.2)	62.1	(5.1)	20.5	(0.1)
Total instruments	(160.3)	148.5	(11.8)	33.9	(0.5)	(230.3)	213.7	(16.6)	50.8	1.2
of which sovereign	(12.8)	11.3	(1.5)	4.4	(0.1)	(13.5)	12.2	(1.3)	4.0	(0.1)
of which non-sovereign	(147.5)	137.2	(10.3)	29.5	(0.4)	(216.8)	201.5	(15.3)	46.8	1.3

- Represents credit protection purchased with identical underlyings and recoveries.
- Based on internal ratings of BBB and above.
- Includes synthetic securitized loan portfolios.

The following table reconciles the notional amount of credit derivatives included in the table “Fair value of derivative instruments” to the table “Credit protection sold/purchased”.

Credit derivatives

end of	2022	2021
Credit derivatives (CHF billion)		
Credit protection sold	160.3	230.3
Credit protection purchased	148.5	213.7
Other protection purchased	33.9	50.8
Other instruments ¹	9.3	12.0
Total credit derivatives	352.0	506.8

- Consists of total return swaps and other derivative instruments.

Maturity of credit protection sold

end of	Maturity less than 1 year	Maturity between 1 to 5 years	Maturity greater than 5 years	Total
2022 (CHF billion)				
Single-name instruments	10.0	61.8	3.3	75.1
Multi-name instruments	6.5	71.5	7.2	85.2
Total instruments	16.5	133.3	10.5	160.3
2021 (CHF billion)				
Single-name instruments	14.4	73.6	3.7	91.7
Multi-name instruments	39.9	88.3	10.4	138.6
Total instruments	54.3	161.9	14.1	230.3

Guarantees

end of	Maturity less than 1 year	Maturity between 1 to 3 years	Maturity between 3 to 5 years	Maturity greater than 5 years	Total gross amount	Total net amount ¹	Carrying value	Collateral received
2022 (CHF million)								
Credit guarantees and similar instruments	2,261	451	127	471	3,310	3,197	22	2,068
Performance guarantees and similar instruments	4,280	1,750	729	513	7,272	6,527	61	3,778
Derivatives ²	2,646	1,702	520	374	5,242	5,242	101	–
Other guarantees	4,455	859	182	1,172	6,668	6,668	56	3,292
Total guarantees	13,642	4,762	1,558	2,530	22,492	21,634	240	9,138
2021 (CHF million)								
Credit guarantees and similar instruments	2,124	1,049	197	561	3,931	3,874	25	2,014
Performance guarantees and similar instruments	3,982	2,253	555	528	7,318	6,299	40	3,605
Derivatives ²	5,374	2,567	561	419	8,921	8,921	289	–
Other guarantees	4,012	1,040	307	1,151	6,510	6,469	71	3,789
Total guarantees	15,492	6,909	1,620	2,659	26,680	25,563	425	9,408

1 Total net amount is computed as the gross amount less any participations.

2 Excludes derivative contracts with certain active commercial and investment banks and certain other counterparties, as such contracts can be cash settled and the Bank had no basis to conclude it was probable that the counterparties held, at inception, the underlying instruments.

- Refer to “Note 34 – Guarantees and commitments” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Deposit-taking banks and securities dealers in Switzerland and certain other European countries are required to ensure the payout of protected deposits in case of specified restrictions or compulsory liquidation of a deposit-taking bank. In Switzerland, deposit-taking banks and securities dealers jointly guaranteed an amount of up to CHF 6 billion under the regulation applicable until December 31, 2022. Upon occurrence of a payout event triggered by a specified restriction of business imposed by the Swiss Financial Market Supervisory Authority FINMA (FINMA) or by the compulsory liquidation of another deposit-taking bank, the Bank’s contribution will be calculated based on its share of privileged deposits in proportion to total privileged deposits. Based on FINMA’s estimate for the Bank, the Bank’s share in the deposit insurance guarantee program for the period July 1, 2022 to December 31, 2022 was CHF 0.5 billion. These deposit insurance guarantees were reflected in other guarantees.

On January 1, 2023, a partial revision of the Swiss Federal Law on Banks and Savings Banks (Bank Law) became effective, which included changes to the Swiss deposit insurance guarantee program. Under the revised program, among other changes,

the jointly guaranteed amount is now determined as the higher of CHF 6 billion or 1.6% of all protected deposits. The Bank’s respective share will be approximately CHF 0.6 billion for the period January 1 to June 30, 2023, as per notifications from the administrator of the Swiss deposit insurance program to the Bank and its Swiss bank subsidiaries. With a transition period until November 30, 2023, banks will have to provide half of the maximum payment obligation as collateral to the administrator of the Swiss deposit insurance program, while the other half will remain subject to the bank’s liquidity requirements and will be reflected in other guarantees. Collateral will have to be provided to the Swiss National Bank (SNB) or the SIX Swiss Exchange in the form of high quality liquid securities or Swiss franc cash deposits or to the administrator of the Swiss deposit insurance program in the form of a loan.

Representations and warranties on residential mortgage loans sold

In connection with the Investment Bank division’s sale of US residential mortgage loans, the Bank has provided certain representations and warranties relating to the loans sold.

Other commitments

end of	Maturity less than 1 year	Maturity between 1 to 3 years	Maturity between 3 to 5 years	Maturity greater than 5 years	Total gross amount	Total net amount ¹
2022 (CHF million)						
Irrevocable commitments under documentary credits	3,378	41	0	1	3,420	3,233
Irrevocable loan commitments	19,272	33,512	44,563	14,782	112,129 ²	108,118
Forward reverse repurchase agreements	1,021	0	0	0	1,021	1,021
Other commitments	212	16	2	268	498	498
Total other commitments	23,883	33,569	44,565	15,051	117,068	112,870
2021 (CHF million)						
Irrevocable commitments under documentary credits	4,796	116	0	0	4,912	4,602
Irrevocable loan commitments	22,959	44,143	43,848	11,609	122,559 ²	118,281
Forward reverse repurchase agreements	466	0	0	0	466	466
Other commitments	121	16	11	248	396	396
Total other commitments	28,342	44,275	43,859	11,857	128,333	123,745

¹ Total net amount is computed as the gross amount less any participations.

² Irrevocable loan commitments did not include a total gross amount of CHF 129,224 million and CHF 144,079 million of unused credit limits as of December 31, 2022 and 2021, respectively, which were revocable at the Bank's sole discretion upon notice to the client.

Transfers of financial assets

- Refer to “Note 35 – Transfers of financial assets and variable interest entities” in VI – Credit Suisse Group – Consolidated financial statements for further information.

Securitizations

The following table provides the gains or losses and proceeds from the transfer of assets relating to 2022, 2021 and 2020 securitizations of financial assets that qualify for sale accounting and subsequent derecognition, along with the cash flows between the Bank and the SPEs used in any securitizations in which the Bank still has continuing involvement, regardless of when the securitization occurred.

Securitizations

in	2022	2021	2020
Gains/(losses) and cash flows (CHF million)			
CMBS			
Net gain/(loss) ¹	6	(7)	85
Proceeds from transfer of assets ²	3,401	3,525	9,209
Cash received on interests that continue to be held	49	42	52
RMBS			
Net gain/(loss) ¹	(2)	70	32
Proceeds from transfer of assets ³	7,534	37,048	23,358
Purchases of previously transferred financial assets or its underlying collateral	0	(1,604)	0
Servicing fees	24	2	2
Cash received on interests that continue to be held	675	1,088	864
Other asset-backed financings			
Net gain ¹	16	65	105
Proceeds from transfer of assets ⁴	6,740	12,129	9,564
Purchases of previously transferred financial assets or its underlying collateral	(1,479)	(1,323)	(1,606)
Fees ⁵	192	165	148
Cash received on interests that continue to be held	153	14	17

- Includes primarily underwriting revenues, deferred origination fees and gains or losses on the sale of newly issued securities to third parties, but excludes net interest income on assets prior to the securitization.
- Included the receipt of non-cash beneficial interests (including risk retention securities) of CHF 512 million, CHF 180 million and CHF 161 million in 2022, 2021 and 2020, respectively.
- Included the receipt of non-cash beneficial interests (including risk retention securities) of CHF 1,081 million, CHF 3,072 million and CHF 3,030 million in 2022, 2021 and 2020, respectively.
- Included the receipt of non-cash beneficial interests (including risk retention securities) of CHF 168 million, CHF 54 million and CHF 9 million in 2022, 2021 and 2020, respectively.
- Represents primarily management fees and performance fees earned for investment management services provided to managed CLOs.

Continuing involvement in transferred financial assets

The following table provides the outstanding principal balance of assets to which the Bank continued to be exposed after the transfer of the financial assets to SPEs and the total assets of the SPEs as of December 31, 2022 and 2021, regardless of when the transfer of assets occurred.

Principal amounts outstanding and total assets of SPEs resulting from continuing involvement

end of	2022	2021
CHF million		
CMBS		
Principal amount outstanding	17,193	15,428
Total assets of SPEs	24,625	23,205
RMBS		
Principal amount outstanding	41,552	56,990
Total assets of SPEs	41,552	56,990
Other asset-backed financings		
Principal amount outstanding	21,939	24,856
Total assets of SPEs	54,609	57,797

Principal amount outstanding relates to assets transferred from the Bank and does not include principal amounts for assets transferred from third parties.

Fair value of beneficial interests

The fair value measurement of beneficial interests held at the time of transfer and as of the reporting date that result from any continuing involvement is determined using fair value estimation techniques, such as the present value of estimated future cash flows that incorporate assumptions that market participants customarily use in these valuation techniques. The fair value of the assets or liabilities that result from any continuing involvement does not include any benefits from financial instruments that the Bank may utilize to hedge the inherent risks.

Key economic assumptions at the time of transfer

- Refer to “Note 35 – Financial instruments” for further information on the fair value hierarchy.

Key economic assumptions used in measuring fair value of beneficial interests at time of transfer

at time of transfer, in	2022		2021		2020	
	CMBS	RMBS	CMBS	RMBS	CMBS	RMBS
CHF million, except where indicated						
Fair value of beneficial interests	486	847	196	2,594	342	2,692
of which level 2	415	762	170	2,126	305	2,398
of which level 3	71	85	26	468	37	294
Weighted-average life, in years	4.1	9.5	5.2	5.3	6.4	3.8
Prepayment speed assumption (rate per annum), in % ¹	— ²	5.0–22.2	— ²	3.0–37.7	— ²	1.0–47.0
Cash flow discount rate (rate per annum), in % ³	3.5–15.7	2.8–53.8	1.8–5.0	1.0–33.4	1.4–20.9	0.2–40.8
Expected credit losses (rate per annum), in % ⁴	2.7–5.6	1.3–49.8	0.9–4.3	0.1–32.5	1.9–8.6	1.6–22.9

Transfers of assets in which the Bank does not have beneficial interests are not included in this table.

- Prepayment speed assumption (PSA) is an industry standard prepayment speed metric used for projecting prepayments over the life of a residential mortgage loan. PSA utilizes the constant prepayment rate (CPR) assumptions. A 100% prepayment assumption assumes a prepayment rate of 0.2% per annum of the outstanding principal balance of mortgage loans in the first month. This increases by 0.2 percentage points thereafter during the term of the mortgage loan, leveling off to a CPR of 6% per annum beginning in the 30th month and each month thereafter during the term of the mortgage loan. 100 PSA equals 6 CPR.
- To deter prepayment, commercial mortgage loans typically have prepayment protection in the form of prepayment lockouts and yield maintenances.
- The rate was based on the weighted-average yield on the beneficial interests.
- The range of expected credit losses only reflects instruments with an expected credit loss greater than zero unless all of the instruments have an expected credit loss of zero.

Key economic assumptions as of the reporting date

The following table provides the sensitivity analysis of key economic assumptions used in measuring the fair value of beneficial interests held in SPEs as of December 31, 2022 and 2021.

Key economic assumptions used in measuring fair value of beneficial interests held in SPEs

end of	2022			2021		
	CMBS ¹	RMBS	Other asset-backed financing activities ²	CMBS ¹	RMBS	Other asset-backed financing activities ²
CHF million, except where indicated						
Fair value of beneficial interests	517	1,050	519	281	2,310	402
of which non-investment grade	111	137	34	55	370	27
Weighted-average life, in years	2.8	9.0	5.1	3.9	4.7	5.5
Prepayment speed assumption (rate per annum), in % ³	—	2.4–21.4	—	—	5.1–41.9	—
Impact on fair value from 10% adverse change	—	(16.5)	—	—	(31.1)	—
Impact on fair value from 20% adverse change	—	(32.7)	—	—	(59.8)	—
Cash flow discount rate (rate per annum), in % ⁴	5.4–42.1	4.4–29.6	4.1–41.9	1.7–50.7	0.7–35.5	0.3–14.7
Impact on fair value from 10% adverse change	(8.2)	(41.6)	(10.5)	(3.5)	(38.1)	(4.9)
Impact on fair value from 20% adverse change	(16.1)	(79.6)	(20.5)	(6.8)	(73.3)	(9.7)
Expected credit losses (rate per annum), in % ⁵	1.1–29.2	1.5–25.5	0.5–37.9	0.6–8.4	0.4–34.2	0.7–13.3
Impact on fair value from 10% adverse change	(4.6)	(19.7)	(5.7)	(2.5)	(28.5)	(4.3)
Impact on fair value from 20% adverse change	(9.1)	(38.2)	(11.1)	(4.9)	(54.8)	(8.4)

- To deter prepayment, commercial mortgage loans typically have prepayment protection in the form of prepayment lockouts and yield maintenances.
- CDOs within this category are generally structured to be protected from prepayment risk.
- PSA is an industry standard prepayment speed metric used for projecting prepayments over the life of a residential mortgage loan. PSA utilizes the CPR assumptions. A 100% prepayment assumption assumes a prepayment rate of 0.2% per annum of the outstanding principal balance of mortgage loans in the first month. This increases by 0.2 percentage points thereafter during the term of the mortgage loan, leveling off to a CPR of 6% per annum beginning in the 30th month and each month thereafter during the term of the mortgage loan. 100 PSA equals 6 CPR.
- The rate was based on the weighted-average yield on the beneficial interests.
- The range of expected credit losses only reflects instruments with an expected credit loss greater than zero unless all of the instruments have an expected credit loss of zero.

Transfers of financial assets where sale treatment was not achieved

The following table provides the carrying amounts of transferred financial assets and the related liabilities where sale treatment was not achieved as of December 31, 2022 and 2021.

Carrying amounts of transferred financial assets and liabilities where sale treatment was not achieved

end of	2022	2021
CHF million		
RMBS		
Other assets	0	257
Liability to SPEs, included in other liabilities	0	(257)
Other asset-backed financings		
Trading assets	366	557
Other assets	154	200
Liability to SPEs, included in other liabilities	(520)	(757)

Securities sold under repurchase agreements and securities lending transactions accounted for as secured borrowings

The following tables provide the gross obligation relating to securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral by the class of collateral pledged and by remaining contractual maturity as of December 31, 2022 and 2021.

Securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral – by class of collateral pledged

end of	2022	2021
CHF billion		
Government debt securities	17.1	16.0
Corporate debt securities	6.9	9.6
Asset-backed securities	0.9	4.6
Equity securities	0.2	0.5
Other	5.1	5.6
Securities sold under repurchase agreements	30.2	36.3
Government debt securities	0.2	13.9
Corporate debt securities	0.3	0.3
Asset-backed securities	0.2	0.3
Equity securities	0.1	1.0
Other	0.1	0.2
Securities lending transactions	0.9	15.7
Government debt securities	1.2	3.6
Corporate debt securities	0.4	0.6
Asset-backed securities	0.1	0.0
Equity securities	1.3	10.8
Other	0.0	0.0
Obligation to return securities received as collateral, at fair value	3.0	15.0
Total	34.1	67.0

Securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral – by remaining contractual maturity

end of	No stated maturity ¹	Remaining contractual maturities			Total
		Up to 30 days ²	31-90 days	More than 90 days	
2022 (CHF billion)					
Securities sold under repurchase agreements	4.1	12.8	5.9	7.4	30.2
Securities lending transactions	0.5	0.2	0.0	0.2	0.9
Obligation to return securities received as collateral, at fair value	3.0	0.0	0.0	0.0	3.0
Total	7.6	13.0	5.9	7.6	34.1
2021 (CHF billion)					
Securities sold under repurchase agreements	5.3	15.8	6.0	9.2	36.3
Securities lending transactions	2.3	1.7	1.6	10.1	15.7
Obligation to return securities received as collateral, at fair value	15.0	0.0	0.0	0.0	15.0
Total	22.6	17.5	7.6	19.3	67.0

¹ Includes contracts with no contractual maturity that may contain termination arrangements subject to a notice period.

² Includes overnight transactions.

- Refer to “Note 27 – Offsetting of financial assets and financial liabilities” for further information on the gross amount of securities sold under repurchase agreements, securities lending transactions and obligation to return securities received as collateral and the net amounts disclosed in the consolidated balance sheets.

Variable interest entities

- Refer to “Note 35 – Transfers of financial assets and variable interest entities” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Commercial paper conduit

The Bank acts as the administrator and provider of liquidity and credit enhancement facilities for Alpine Securitization Ltd (Alpine), a multi-seller asset-backed commercial paper (CP) conduit used for client and Bank financing purposes. Alpine discloses to CP investors certain portfolio and asset data and submits its portfolio to rating agencies for public ratings on its CP. This CP conduit purchases assets such as loans and receivables or enters into reverse repurchase agreements and finances such activities through the issuance of CP backed by these assets. In addition to CP, Alpine may also issue term notes with maturities up to 30 months. The Bank (including Alpine) can enter into liquidity facilities with third-party entities pursuant to which it may be required to purchase assets from these entities to provide them with liquidity and credit support. The financing transactions are structured to provide credit support in the form of over-collateralization and other asset-specific enhancements. Alpine is a separate legal entity that is wholly owned by the Bank. However, its assets are available to satisfy only the claims of its creditors. In addition, the Bank, as administrator and liquidity facility provider, has significant exposure to and power over the activities of Alpine. Alpine is considered a VIE for accounting purposes and the Bank is deemed the primary beneficiary and consolidates this entity.

The overall average maturity of Alpine’s outstanding CP was approximately 249 days as of December 31, 2022. Alpine’s CP had exposures mainly in reverse repurchase agreements with a Bank entity, solar loans and leases, consumer loans and car loans and leases.

The Bank’s financial commitment to this CP conduit consists of obligations under liquidity agreements. The liquidity agreements are asset-specific arrangements, which require the Bank to provide short-term financing to the CP conduit or to purchase

assets from the CP conduit in certain circumstances, including, but not limited to, a lack of liquidity in the CP market such that the CP conduit cannot refinance its obligations or a default of an underlying asset. In such circumstances, the Bank may be viewed as the primary beneficiary of specified assets referenced under liquidity agreements, resulting in consolidation of specified assets, which are included as part of the consolidated VIEs table. The asset-specific credit enhancements provided by the client seller of the assets remain unchanged as a result of such a purchase. In entering into such agreements, the Bank reviews the credit risk associated with these transactions on the same basis that would apply to other extensions of credit.

The Bank enters into liquidity facilities with CP conduits administrated and sponsored by third parties. These third-party CP conduits are considered to be VIEs for accounting purposes. The Bank is not the primary beneficiary and generally does not consolidate these third-party CP conduits. The Bank’s financial commitment to these third-party CP conduits consists of obligations under liquidity agreements. The liquidity agreements are asset-specific arrangements, which require the Bank to provide short-term financing to the third-party CP conduits or to purchase assets from these CP conduits in certain circumstances, including, but not limited to, a lack of liquidity in the CP market such that the CP conduits cannot refinance their obligations or a default of an underlying asset. As of December 31, 2022, certain liquidity facilities with third-party CP conduits referenced groups of specified assets and liabilities within a VIE for which the Group is the primary beneficiary which required consolidation. The asset-specific credit enhancements, if any, provided by the client seller of the assets remain unchanged as a result of such a purchase. In entering into such agreements, the Bank reviews the credit risk associated with these transactions on the same basis that would apply to other extensions of credit. In some situations, the Bank can enter into liquidity facilities with these third-party CP conduits through Alpine.

The Bank’s economic risks associated with the Alpine CP conduit and the third-party CP conduits are included in the Bank’s risk management framework including counterparty, economic risk capital and scenario analysis.

Consolidated VIEs

The Bank has significant involvement with VIEs in its role as a financial intermediary on behalf of clients. The Bank consolidates all VIEs related to financial intermediation for which it is the primary beneficiary.

The consolidated VIEs table provides the carrying amounts and classifications of the assets and liabilities of consolidated VIEs as of December 31, 2022 and 2021.

Consolidated VIEs in which the Bank was the primary beneficiary

end of	Financial intermediation						Total
	CDO/ CLO	CP Conduit	Securi- tizations	Funds	Loans	Other	
2022 (CHF million)							
Cash and due from banks	15	94	68	17	24	11	229
Trading assets	0	954	1,154	23	457	0	2,588
Other investments	0	0	0	58	587	136	781
Net loans	0	3,260	0	0	16	134	3,410
Other assets	281	2,466	1,349	39	42	417	4,594
of which loans held-for-sale	279	2,445	119	21	0	0	2,864
of which premises and equipment	0	0	0	0	0	0	0
Total assets of consolidated VIEs	296	6,774	2,571	137	1,126	698	11,602
Trading liabilities	0	1,057	0	0	6	0	1,063
Short-term borrowings	0	3,124	0	13	0	0	3,137
Long-term debt	84	0	1,860	0	0	152	2,096
Other liabilities	0	49	2	19	49	70	189
Total liabilities of consolidated VIEs	84	4,230	1,862	32	55	222	6,485
2021 (CHF million)							
Cash and due from banks	0	1	42	25	27	13	108
Trading assets	0	0	1,158	54	610	0	1,822
Other investments	0	0	0	65	789	161	1,015
Net loans	0	1,022	317	0	28	33	1,400
Other assets	0	31	604	78	95	674	1,482
of which loans held-for-sale	0	0	50	23	0	1	74
of which premises and equipment	0	0	0	0	12	0	12
Total assets of consolidated VIEs	0	1,054	2,121	222	1,549	881	5,827
Trading liabilities	0	0	0	0	8	0	8
Short-term borrowings	0	4,337	0	15	0	0	4,352
Long-term debt	0	0	1,342	0	3	46	1,391
Other liabilities	0	67	1	20	61	84	233
Total liabilities of consolidated VIEs	0	4,404	1,343	35	72	130	5,984

Non-consolidated VIEs

The non-consolidated VIEs table provides the carrying amounts and classification of the assets of variable interests recorded in the Bank's consolidated balance sheets, maximum exposure to loss and total assets of the non-consolidated VIEs.

Certain VIEs have not been included in the following table, including VIEs structured by third parties in which the Bank's interest is in the form of securities held in the Bank's inventory, certain repurchase financings to funds and single-asset financing vehicles not sponsored by the Bank to which the Bank provides financing but has very little risk of loss due to over-collateralization and/or guarantees, failed sales where the Bank does not have any other holdings and other entities out of scope.

Non-consolidated VIEs

end of	CDO/ CLO	CP Conduit ¹	Financial intermediation				Total
			Securi- tizations	Funds	Loans	Other	
2022 (CHF million)							
Trading assets	214	0	3,877	750	7	1,816	6,664
Net loans	314	1,440	2,521	1,934	7,617	2,201	16,027
Other assets	6	0	3	122	4	884	1,019
Total variable interest assets	534	1,440	6,401	2,806	7,628	4,901	23,710
Maximum exposure to loss	547	4,374	9,514	2,806	9,999	5,490	32,730
Total assets of non-consolidated VIEs	9,713	7,297	79,322	115,900	38,632	14,620	265,484
2021 (CHF million)							
Trading assets	257	0	4,526	932	13	5,494	11,222
Net loans	268	1,005	940	2,403	8,774	1,986	15,376
Other assets	6	0	22	109	0	628	765
Total variable interest assets	531	1,005	5,488	3,444	8,787	8,108	27,363
Maximum exposure to loss	774	7,625	8,036	3,444	13,068	8,637	41,584
Total assets of non-consolidated VIEs	10,266	14,948	108,942	102,820	36,428	19,804	293,208

¹ Includes liquidity facilities provided to third-party CP conduits through Alpine.

- Refer to “Note 36 – Financial instruments” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Assets and liabilities measured at fair value on a recurring basis

end of 2022	Level 1	Level 2	Level 3	Netting impact ¹	Assets measured at net asset value per share ²	Total
Assets (CHF million)						
Cash and due from banks	0	198	0	—	—	198
Interest-bearing deposits with banks	0	14	0	—	—	14
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	100	40,693	0	—	—	40,793
Securities received as collateral	2,318	660	0	—	—	2,978
Trading assets	33,724	105,555	3,828	(77,695)	543	65,955
of which debt securities	13,084	23,288	1,211	—	31	37,614
of which foreign government	10,117	5,597	86	—	—	15,800
of which corporates	2,718	4,998	413	—	31	8,160
of which RMBS	5	10,417	444	—	—	10,866
of which CDO	197	941	216	—	—	1,354
of which equity securities	11,772	676	222	—	512	13,182
of which derivatives	7,571	79,606	1,661	(77,695)	—	11,143
of which interest rate products	1,617	31,900	671	—	—	—
of which foreign exchange products	24	25,512	17	—	—	—
of which equity/index-related products	5,927	18,669	295	—	—	—
of which credit derivatives	0	3,059	130	—	—	—
of which other derivatives	0	197	548	—	—	—
of which other trading assets	1,297	1,985	734	—	—	4,016
Investment securities	0	796	0	—	—	796
Other investments	0	17	3,313	—	400	3,730
of which other equity investments	0	17	2,725	—	328	3,070
of which life finance instruments	0	0	587	—	—	587
Loans	0	6,318	1,040	—	—	7,358
of which commercial and industrial loans	0	2,381	300	—	—	2,681
of which financial institutions	0	2,591	398	—	—	2,989
of which government and public institutions	0	1,112	254	—	—	1,366
Other intangible assets (mortgage servicing rights)	0	44	359	—	—	403
Other assets	78	8,316	773	(220)	—	8,947
of which failed purchases	54	664	12	—	—	730
of which loans held-for-sale	0	7,165	648	—	—	7,813
Total assets at fair value	36,220	162,611	9,313	(77,915)	943	131,172

- 1 Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.
- 2 In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis (continued)

end of 2022	Level 1	Level 2	Level 3	Netting impact ¹	Liabilities measured at net asset value per share ²	Total
Liabilities (CHF million)						
Due to banks	0	490	0	—	—	490
Customer deposits	0	2,212	252	—	—	2,464
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	0	14,133	0	—	—	14,133
Obligation to return securities received as collateral	2,318	660	0	—	—	2,978
Trading liabilities	13,131	83,351	1,881	(80,026)	—	18,337
of which short positions	6,556	2,595	16	—	—	9,167
of which debt securities	3,228	2,232	1	—	—	5,461
of which foreign government	3,150	272	0	—	—	3,422
of which corporates	53	1,957	1	—	—	2,011
of which equity securities	3,328	363	15	—	—	3,706
of which derivatives	6,575	80,756	1,640	(80,026)	—	8,945
of which interest rate products	1,566	30,288	118	—	—	—
of which foreign exchange products	20	26,180	1	—	—	—
of which equity/index-related products	4,981	20,731	1,083	—	—	—
of which credit derivatives	0	3,157	242	—	—	—
of which other derivatives	5	210	196	—	—	—
of which other trading liabilities	0	0	225	—	—	225
Short-term borrowings	0	6,330	453	—	—	6,783
Long-term debt	0	51,185	6,734	—	—	57,919
of which structured notes over one year and up to two years	0	10,697	439	—	—	11,136
of which structured notes over two years	0	23,409	4,307	—	—	27,716
of which other debt instruments over two years	0	2,961	1,728	—	—	4,689
of which high-trigger instruments	0	7,484	28	—	—	7,512
Other liabilities	133	3,794	203	(1,844)	—	2,286
Total liabilities at fair value	15,582	162,155	9,523	(81,870)	—	105,390

¹ Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.

² In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis (continued)

end of 2021	Level 1	Level 2	Level 3	Netting impact ¹	Assets measured at net asset value per share ²	Total
Assets (CHF million)						
Cash and due from banks	0	308	0	—	—	308
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	0	68,623	0	—	—	68,623
Securities received as collateral	13,848	1,155	14	—	—	15,017
Trading assets	54,145	146,768	4,503	(94,782)	665	111,299
of which debt securities	12,191	40,799	1,225	—	82	54,297
of which foreign government	11,996	11,377	35	—	—	23,408
of which corporates	72	9,057	478	—	82	9,689
of which RMBS	0	17,033	424	—	—	17,457
of which equity securities	34,342	1,486	195	—	583	36,606
of which derivatives	6,224	103,930	2,187	(94,782)	—	17,559
of which interest rate products	721	48,083	624	—	—	—
of which foreign exchange products	123	20,686	53	—	—	—
of which equity/index-related products	5,348	29,808	212	—	—	—
of which other derivatives	0	196	1,034	—	—	—
of which other trading assets	1,388	553	896	—	—	2,837
Investment securities	0	1,003	0	—	—	1,003
Other investments	0	23	3,666	—	404	4,093
of which other equity investments	0	23	2,863	—	351	3,237
of which life finance instruments	0	0	789	—	—	789
Loans	0	8,709	1,534	—	—	10,243
of which commercial and industrial loans	0	2,267	717	—	—	2,984
of which financial institutions	0	3,840	465	—	—	4,305
of which government and public institutions	0	1,747	289	—	—	2,036
Other intangible assets (mortgage servicing rights)	0	57	167	—	—	224
Other assets	121	8,750	694	(381)	—	9,184
of which failed purchases	98	1,135	11	—	—	1,244
of which loans held-for-sale	0	6,818	562	—	—	7,380
Total assets at fair value	68,114	235,396	10,578	(95,163)	1,069	219,994

¹ Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.

² In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis (continued)

end of 2021	Level 1	Level 2	Level 3	Netting impact ¹	Liabilities measured at net asset value per share ²	Total
Liabilities (CHF million)						
Due to banks	0	477	0	—	—	477
Customer deposits	0	3,306	394	—	—	3,700
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	0	13,307	0	—	—	13,307
Obligation to return securities received as collateral	13,848	1,155	14	—	—	15,017
Trading liabilities	19,423	105,865	2,809	(100,559)	1	27,539
of which short positions	11,693	4,974	25	—	1	16,693
of which debt securities	2,809	4,865	3	—	—	7,677
of which foreign government	2,667	968	0	—	—	3,635
of which corporates	113	3,839	3	—	—	3,955
of which equity securities	8,884	109	22	—	1	9,016
of which derivatives	7,730	100,891	2,542	(100,559)	—	10,604
of which interest rate products	776	44,039	26	—	—	—
of which foreign exchange products	133	22,646	57	—	—	—
of which equity/index-related products	6,812	27,919	1,787	—	—	—
of which other trading liabilities	0	0	242	—	—	242
Short-term borrowings	0	9,658	1,032	—	—	10,690
Long-term debt	0	58,112	9,676	—	—	67,788
of which structured notes over one year and up to two years	0	11,036	1,464	—	—	12,500
of which structured notes over two years	0	24,168	6,318	—	—	30,486
of which other debt instruments over two years	0	3,223	1,854	—	—	5,077
of which high-trigger instruments	0	10,708	0	—	—	10,708
of which other subordinated bonds	0	7,133	0	—	—	7,133
Other liabilities	348	2,008	517	(305)	—	2,568
Total liabilities at fair value	33,619	193,888	14,442	(100,864)	1	141,086

¹ Derivative contracts are reported on a gross basis by level. The impact of netting represents legally enforceable master netting agreements.

² In accordance with US GAAP, certain investments that are measured at fair value using the net asset value per share practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated balance sheet.

Assets and liabilities measured at fair value on a recurring basis for level 3

2022	Balance at beginning of period	Transfers in	Transfers out	Purchases	Sales	Issuances	Settlements
Assets (CHF million)							
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	0	0	0	0	0	3	(3)
Securities received as collateral	14	0	0	0	(14)	0	0
Trading assets	4,503	1,818	(2,057)	5,563	(5,184)	967	(1,076)
of which debt securities	1,225	1,206	(1,090)	4,622	(4,185)	0	0
of which corporates	478	452	(582)	3,933	(3,342)	0	0
of which RMBS	424	312	(179)	306	(564)	0	0
of which CDO	245	201	(138)	103	(148)	0	0
of which derivatives	2,187	406	(824)	0	0	967	(918)
of which interest rate products	624	11	(182)	0	0	89	(66)
of which equity/index-related products	212	262	(416)	0	0	473	(284)
of which credit derivatives	264	115	(189)	0	0	65	(142)
of which other derivatives	1,034	9	(4)	0	0	330	(317)
of which other trading assets	896	27	(51)	827	(923)	0	(158)
Other investments	3,666	69	(13)	65	(206)	0	0
of which other equity investments	2,863	69	0	37	(16)	0	0
of which life finance instruments	789	0	0	28	(182)	0	0
Loans	1,534	566	(470)	16	(45)	63	(667)
of which commercial and industrial loans	717	163	(327)	0	(18)	4	(218)
of which financial institutions	465	141	(41)	15	(15)	58	(293)
of which government and public institutions	289	91	(39)	1	0	1	(72)
Other intangible assets (mortgage servicing rights)	167	187	0	0	0	0	0
Other assets	694	452	(289)	743	(593)	157	(417)
of which loans held-for-sale	562	379	(232)	724	(591)	157	(415)
Total assets at fair value	10,578	3,092	(2,829)	6,387	(6,042)	1,190	(2,163)
Liabilities (CHF million)							
Customer deposits	394	0	0	0	0	0	(18)
Obligation to return securities received as collateral	14	0	0	0	(14)	0	0
Trading liabilities	2,809	1,784	(1,381)	33	(106)	844	(2,066)
of which derivatives	2,542	1,651	(1,353)	0	0	844	(2,066)
of which equity/index-related products	1,787	615	(1,027)	0	0	476	(520)
of which credit derivatives	374	991	(201)	0	0	176	(1,329)
of which other derivatives	298	0	(5)	0	0	143	(174)
Short-term borrowings	1,032	204	(684)	0	0	785	(815)
Long-term debt	9,676	3,116	(6,609)	0	0	7,730	(5,575)
of which structured notes over two years	6,318	2,502	(4,930)	0	0	6,589	(4,729)
of which other debt instruments over two years	1,854	0	0	0	0	166	(279)
Other liabilities	517	126	(305)	22	(89)	110	(136)
Total liabilities at fair value	14,442	5,230	(8,979)	55	(209)	9,469	(8,610)
Net assets/(liabilities) at fair value	(3,864)	(2,138)	6,150	6,332	(5,833)	(8,279)	6,447

1 Changes in unrealized gains/(losses) on total assets at fair value and changes in unrealized (gains)/losses on total liabilities at fair value relating to assets and liabilities held at period end are included in net revenues or accumulated other comprehensive income. As of 2022, changes in net unrealized gains/(losses) of CHF (472) million and CHF (50) million were recorded in trading revenues and other revenues, respectively, and changes in unrealized (gains)/losses of CHF 413 million were recorded in gains/(losses) on liabilities relating to credit risk in accumulated other comprehensive income/(loss).

Trading revenues		Other revenues		Accumulated other comprehensive income		Foreign currency translation impact	Balance at end of period	Changes in unrealized gains/losses ¹
On transfers out	On all other	On transfers out	On all other	On transfers out	On all other			
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
83	(847)	0	(9)	0	0	67	3,828	(193)
(106)	(499)	0	(9)	0	0	47	1,211	215
(97)	(464)	0	0	0	0	35	413	226
3	133	0	0	0	0	9	444	4
(5)	(39)	0	(9)	0	0	6	216	(6)
144	(301)	0	0	0	0	0	1,661	(328)
(5)	229	0	0	0	0	(29)	671	166
106	(55)	0	0	0	0	(3)	295	2
31	(19)	0	0	0	0	5	130	1
4	(537)	0	0	0	0	29	548	(489)
6	94	0	0	0	0	16	734	(123)
0	(253)	0	(57)	0	0	42	3,313	(95)
0	(190)	0	(65)	0	0	27	2,725	(50)
0	(63)	0	0	0	0	15	587	(45)
39	(46)	0	(6)	0	0	56	1,040	(92)
12	(50)	0	(6)	0	0	23	300	(74)
16	29	0	0	0	0	23	398	9
1	(24)	0	0	0	0	6	254	(25)
0	4	0	0	0	0	1	359	4
46	(49)	0	3	0	0	26	773	(31)
15	26	0	0	0	0	23	648	(15)
168	(1,191)	0	(69)	0	0	192	9,313	(407)
0	(49)	0	0	0	(57)	(18)	252	(120)
0	0	0	0	0	0	0	0	0
52	(165)	0	0	0	0	77	1,881	224
51	(98)	0	0	0	0	69	1,640	216
(5)	(273)	0	0	0	0	30	1,083	(38)
26	172	0	0	0	0	33	242	152
3	(79)	0	0	0	0	10	196	(5)
(75)	(8)	0	0	0	0	14	453	9
(557)	(785)	0	0	(51)	(350)	139	6,734	(422)
(418)	(737)	0	0	(49)	(344)	105	4,307	(487)
0	(38)	0	0	0	0	25	1,728	83
82	(90)	(46)	1	0	0	11	203	11
(498)	(1,097)	(46)	1	(51)	(407)	223	9,523	(298)
666	(94)	46	(70)	51	407	(31)	(210)	(109)

Assets and liabilities measured at fair value on a recurring basis for level 3 (continued)

2021	Balance at beginning of period	Transfers in	Transfers out	Purchases	Sales	Issuances	Settlements
Assets (CHF million)							
Securities received as collateral	101	0	0	73	(164)	0	0
Trading assets	7,535	1,345	(3,413)	4,867	(5,685)	874	(1,629)
of which debt securities	2,253	878	(1,701)	3,668	(4,141)	0	0
of which corporates	1,270	471	(747)	2,753	(3,483)	0	0
of which RMBS	557	158	(615)	654	(385)	0	0
of which derivatives	3,911	314	(1,551)	0	0	874	(1,514)
of which interest rate products	733	58	(222)	0	0	175	(79)
of which other derivatives	1,079	1	0	0	0	311	(325)
of which other trading assets	1,247	31	(90)	1,035	(1,371)	0	(115)
Other investments	3,054	99	(758)	1,513	(658)	0	0
of which other equity investments	2,132	65	(757)	1,478	(443)	0	0
of which life finance instruments	920	0	0	33	(188)	0	0
Loans	3,669	257	(1,315)	362	(194)	207	(1,620)
of which commercial and industrial loans	1,347	213	(364)	10	(133)	162	(643)
of which financial institutions	1,082	43	(340)	0	(42)	34	(409)
of which government and public institutions	729	1	(298)	0	(1)	(1)	(68)
Other intangible assets (mortgage servicing rights)	180	0	0	22	0	0	0
Other assets	1,825	370	(902)	3,447	(3,269)	120	(924)
of which loans held-for-sale	1,576	360	(855)	3,394	(3,222)	120	(921)
Total assets at fair value	16,364	2,071	(6,388)	10,284	(9,970)	1,201	(4,173)
Liabilities (CHF million)							
Customer deposits	448	0	0	0	0	0	0
Obligation to return securities received as collateral	101	0	0	73	(164)	0	0
Trading liabilities	4,246	1,007	(2,703)	45	(56)	1,135	(1,498)
of which derivatives	3,937	838	(2,553)	0	0	1,135	(1,498)
of which equity/index-related derivatives	2,010	562	(1,498)	0	0	581	(644)
Short-term borrowings	701	359	(550)	0	0	1,766	(1,363)
Long-term debt	7,286	4,767	(6,698)	0	0	11,323	(6,863)
of which structured notes over one year and up to two years	1,133	1,802	(1,979)	0	0	2,052	(1,663)
of which structured notes over two years	5,526	2,965	(4,314)	0	0	7,540	(5,038)
of which other debt instruments over two years	165	0	(2)	0	0	1,616	(36)
Other liabilities	1,250	21	(538)	51	(89)	116	(493)
Total liabilities at fair value	14,032	6,154	(10,489)	169	(309)	14,340	(10,217)
Net assets/(liabilities) at fair value	2,332	(4,083)	4,101	10,115	(9,661)	(13,139)	6,044

1 Changes in unrealized gains/(losses) on total assets at fair value and changes in unrealized (gains)/losses on total liabilities at fair value relating to assets and liabilities held at period end are included in net revenues or accumulated other comprehensive income. As of 2021, changes in net unrealized gains/(losses) of CHF (841) million and CHF 82 million were recorded in trading revenues and other revenues, respectively, and changes in unrealized (gains)/losses of CHF 2 million were recorded in gains/(losses) on liabilities relating to credit risk in accumulated other comprehensive income/(loss).

- Refer to “Note 36 – Financial instruments” in VI – Consolidated financial statements – Credit Suisse Group for quantitative information about level 3 assets and liabilities measured at fair value on a recurring basis.

Trading revenues		Other revenues		Accumulated other comprehensive income		Foreign currency translation impact	Balance at end of period	Changes in unrealized gains/losses ¹
On transfers out	On all other	On transfers out	On all other	On transfers out	On all other			
0	0	0	0	0	0	4	14	0
(133)	509	0	(1)	0	0	234	4,503	52
(331)	509	0	(1)	0	0	91	1,225	103
(321)	472	0	0	0	0	63	478	154
(25)	59	0	0	0	0	21	424	(15)
79	(16)	0	0	0	0	90	2,187	116
(8)	(14)	0	0	0	0	(19)	624	141
0	(73)	0	0	0	0	41	1,034	(81)
62	49	0	0	0	0	48	896	(96)
0	86	0	267	0	0	63	3,666	120
0	96	0	262	0	0	30	2,863	80
0	(10)	0	0	0	0	34	789	39
7	55	0	(3)	0	0	109	1,534	(59)
19	74	0	(3)	0	0	35	717	6
1	70	0	0	0	0	26	465	27
(12)	(88)	0	0	0	0	27	289	(87)
0	0	0	(42)	0	0	7	167	(42)
14	(41)	0	0	0	0	54	694	(137)
25	41	0	0	0	0	44	562	(104)
(112)	609	0	221	0	0	471	10,578	(66)
0	(18)	0	0	0	(14)	(22)	394	(29)
0	0	0	0	0	0	4	14	0
340	138	0	0	0	0	155	2,809	653
340	201	0	0	0	0	142	2,542	644
353	352	0	0	0	0	71	1,787	712
(35)	128	0	0	0	0	26	1,032	72
(36)	(324)	0	0	0	(49)	270	9,676	(31)
(26)	104	0	0	(1)	(1)	43	1,464	(2)
11	(528)	0	0	1	(47)	202	6,318	(312)
0	105	0	0	0	0	6	1,854	306
10	(28)	109	66	0	0	42	517	26
279	(104)	109	66	0	(63)	475	14,442	691
(391)	713	(109)	155	0	63	(4)	(3,864)	(757)

Fair value, unfunded commitments and term of redemption conditions of investment funds measured at NAV per share

end of	2022				2021			
	Non-redeemable	Redeemable	Total fair value	Unfunded commitments	Non-redeemable	Redeemable	Total fair value	Unfunded commitments
Fair value of investment funds and unfunded commitments (CHF million)								
Funds held in trading assets and trading liabilities								
	128	415	543	14	193	471	664	24
Private equity funds	58	0	58	48	39	0	39	42
Hedge funds	13	1	14	1	12	2	14	1
Equity method investment funds	315	13	328	114	336	15	351	124
Funds held in other investments	386	14	400	163	387	17	404	167
Fair value of investment funds and unfunded commitments	514¹	429²	943	177	580³	488⁴	1,068	191

- 1 CHF 276 million of the underlying assets had known liquidation periods and for CHF 238 million, the timing of liquidation was unknown.
- 2 CHF 234 million was redeemable on demand with a notice period of primarily less than 30 days.
- 3 CHF 339 million of the underlying assets had known liquidation periods and for CHF 241 million, the timing of liquidation was unknown.
- 4 CHF 304 million was redeemable on demand with a notice period of primarily less than 30 days.

Assets and liabilities measured at fair value on a nonrecurring basis

end of 2022	Level 1	Level 2	Level 3	Total
Assets (CHF million)				
Other investments	0	259	106	365
of which equity method investments	0	0	78	78
of which equity securities (without a readily determinable fair value)	0	259	28	287
Net loans	0	14	1	15
Other assets	0	39	44	83
of which loans held-for-sale	0	39	32	71
of which real estate held-for-sale	0	0	12	12
Total assets recorded at fair value on a nonrecurring basis	0	312	151	463
Liabilities (CHF million)				
Other liabilities	0	2	21	23
of which commitments held-for-sale	0	2	21	23
Total liabilities recorded at fair value on a nonrecurring basis	0	2	21	23
end of 2021				
Assets (CHF million)				
Other investments	0	0	152	152
of which equity method investments	0	0	118	118
of which equity securities (without a readily determinable fair value)	0	0	21	21
Net loans	0	12	5	17
Other assets	0	29	110	139
of which loans held-for-sale	0	28	45	73
of which premises, equipment and right-of-use assets	0	1	60	61
Total assets recorded at fair value on a nonrecurring basis	0	41	267	308
Liabilities (CHF million)				
Other liabilities	0	0	21	21
of which commitments held-for-sale	0	0	21	21
Total liabilities recorded at fair value on a nonrecurring basis	0	0	21	21

- Refer to “Note 36 – Financial instruments” in VI – Consolidated financial statements – Credit Suisse Group for quantitative information about level 3 assets and liabilities measured at fair value on a nonrecurring basis.

Difference between the aggregate fair value and unpaid principal balances of fair value option-elected financial instruments

end of	2022			2021		
	Aggregate fair value	Aggregate unpaid principal	Difference	Aggregate fair value	Aggregate unpaid principal	Difference
Financial instruments (CHF million)						
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	40,793	40,665	128	68,623	68,565	58
Loans	7,358	8,241	(883)	10,243	11,035	(792)
Other assets ¹	8,544	10,937	(2,393)	8,624	10,777	(2,153)
Due to banks and customer deposits	(458)	(562)	104	(493)	(442)	(51)
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(14,133)	(14,024)	(109)	(13,307)	(13,306)	(1)
Short-term borrowings	(6,783)	(6,892)	109	(10,690)	(10,996)	306
Long-term debt ²	(57,919)	(71,891)	13,972	(67,788)	(70,946)	3,158
Other liabilities	(888)	(1,043)	155	(1,170)	(1,403)	233
Non-accrual loans ^{3, 4}	733	2,213	(1,480)	843	2,657	(1,814)

¹ Primarily loans held-for-sale.

² Long-term debt includes both principal-protected and non-principal protected instruments. For non-principal-protected instruments, the original notional amount has been reported in the aggregate unpaid principal.

³ Generally, a loan is deemed non-accrual when the contractual payments of principal and/or interest are more than 90 days past due.

⁴ Included in loans or other assets.

Gains and losses on financial instruments

in	2022	2021	2020
	Net gains/ (losses)	Net gains/ (losses)	Net gains/ (losses)
Financial instruments (CHF million)			
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	1,450 ¹	638 ¹	1,198 ¹
Other investments	(51) ²	304 ²	397 ²
of which related to credit risk	(3)	2	1
Loans	163 ¹	443 ¹	510 ¹
of which related to credit risk	(239)	(13)	(181)
Other assets	246 ¹	519 ¹	489 ¹
of which related to credit risk	(202)	133	(106)
Due to banks and customer deposits	(44) ³	(22) ³	(10) ³
of which related to credit risk	(1)	0	0
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	(156) ¹	(43) ¹	(58) ¹
Short-term borrowings	1,916 ³	98 ³	(687) ³
of which related to credit risk	1	2	0
Long-term debt	6,767 ³	(2,644) ³	(2,349) ³
of which related to credit risk	3	0	11
Other liabilities	54 ²	171 ³	(20) ³
of which related to credit risk	(164)	71	(15)

¹ Primarily recognized in net interest income.

² Primarily recognized in other revenues.

³ Primarily recognized in trading revenues.

Gains/(losses) attributable to changes in instrument-specific credit risk

in	Gains/(losses) recorded into AOCI ¹			Gains/(losses) recorded in AOCI transferred to net income ¹	
	2022	Cumulative	2021	2022	2021
Financial instruments (CHF million)					
Customer deposits	57	0	14	0	0
Short-term borrowings	19	(25)	19	0	0
Long-term debt	6,787	4,656	263	(31)	103
of which treasury debt over two years	3,522	2,656	(134)	0	0
of which structured notes over two years	2,667	1,492	361	(31)	103
Total	6,863	4,631	296	(31)	103

¹ Amounts are reflected gross of tax.

Carrying value and fair value of financial instruments not carried at fair value

end of	Carrying value	Fair value			Total
		Level 1	Level 2	Level 3	
2022 (CHF million)					
Financial assets					
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	18,005	0	18,005	0	18,005
Investment securities	921	911	0	0	911
Loans	256,825	0	241,035	12,743	253,778
Other financial assets ¹	91,451	68,104	20,246	2,922	91,272
Financial liabilities					
Due to banks and customer deposits	243,506	149,696	93,714	0	243,410
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	6,238	0	6,238	0	6,238
Short-term borrowings	7,705	0	7,703	0	7,703
Long-term debt	92,742	0	73,596	13,366	86,962
Other financial liabilities ²	8,551	0	7,984	523	8,507
2021 (CHF million)					
Financial assets					
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	35,283	0	35,283	0	35,283
Loans	286,438	0	281,195	13,722	294,917
Other financial assets ¹	179,217	163,307	15,457	494	179,258
Financial liabilities					
Due to banks and customer deposits	408,624	244,155	164,475	0	408,630
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	22,061	0	22,061	0	22,061
Short-term borrowings	14,646	0	14,646	0	14,646
Long-term debt	92,908	0	93,597	1,702	95,299
Other financial liabilities ²	12,542	0	12,105	441	12,546

¹ Primarily includes cash and due from banks, interest-bearing deposits with banks, loans held-for-sale, cash collateral on derivative instruments, interest and fee receivables and non-marketable equity securities.

² Primarily includes cash collateral on derivative instruments and interest and fee payables.

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36 Assets pledged and collateral

Assets pledged

The Bank pledges assets mainly for repurchase agreements and other securities financing. Certain pledged assets may be encumbered, meaning they have the right to be sold or repledged. The encumbered assets are parenthetically disclosed on the consolidated balance sheet.

Assets pledged

end of	2022	2021
CHF million		
Total assets pledged or assigned as collateral	63,111	88,721
of which encumbered	<u>25,445</u>	<u>39,105</u>

Collateral

The Bank receives cash and securities in connection with resale agreements, securities borrowing and loans, derivative transactions and margined broker loans. A significant portion of the collateral and securities received by the Bank was sold or repledged in connection with repurchase agreements, securities sold not yet purchased, securities borrowings and loans, pledges to clearing organizations, segregation requirements under securities laws and regulations, derivative transactions and bank loans.

Collateral

end of	2022	2021
CHF million		
Fair value of collateral received with the right to sell or repledge	150,198	289,898
of which sold or repledged	<u>75,819</u>	<u>144,747</u>

Other information

end of	2022	2021
CHF million		
Swiss National Bank required minimum liquidity reserves	2,258	2,246
Other restricted cash, securities and receivables ¹	<u>812</u>	<u>3,423</u>

¹ Includes cash, securities and receivables recorded on the Group's consolidated balance sheets and restricted under Swiss or foreign regulations for financial institutions; excludes restricted cash, securities and receivables held on behalf of clients which are not recorded on the Group's consolidated balance sheet.

- Refer to "Note 37 – Assets pledged and collateral" in VI – Consolidated financial statements – Credit Suisse Group for further information.

37 Capital adequacy

The Bank is subject to the Basel framework, as implemented in Switzerland, as well as Swiss legislation and regulations for systemically important banks. The Bank, which is subject to regulation by FINMA, has based its capital adequacy calculations on US GAAP financial statements, as permitted by FINMA Circular 2013/1.

- Refer to "Note 38 – Capital adequacy" in VI – Consolidated financial statements – Credit Suisse Group for further information.

As of December 31, 2022 and 2021, the Bank's capital position exceeded its capital requirements under the regulatory provisions outlined under Swiss Requirements.

Broker-dealer operations

Certain of the Bank's broker-dealer subsidiaries are also subject to capital adequacy requirements. As of December 31, 2022 and 2021, the Bank and its subsidiaries complied with all applicable regulatory capital adequacy requirements.

Dividend restrictions

Certain of the Bank's subsidiaries are subject to legal restrictions governing the amount of dividends they can pay (for example, pursuant to corporate law as defined by the Swiss Code of Obligations).

As of December 31, 2022 and 2021, Credit Suisse AG was not subject to restrictions on its ability to pay the proposed dividends.

Swiss metrics

end of	2022	2021
Swiss capital (CHF million)		
Swiss CET1 capital	40,987	44,185
Going concern capital	54,843	59,110
Gone concern capital	42,930	41,316 ¹
Total loss-absorbing capacity (TLAC)	97,773	100,426
Swiss risk-weighted assets and leverage exposure (CHF million)		
Swiss risk-weighted assets	249,953	267,558
Leverage exposure	653,551	895,810
Swiss capital ratios (%)		
Swiss CET1 ratio	16.4	16.5
Going concern capital ratio	21.9	22.1
Gone concern capital ratio	17.2	15.4
TLAC ratio	39.1	37.5
Swiss leverage ratios (%)		
Swiss CET1 leverage ratio	6.3	4.9
Going concern leverage ratio	8.4	6.6
Gone concern leverage ratio	6.6	4.6
TLAC leverage ratio	15.0	11.2
Swiss capital ratio requirements (%)		
Swiss CET1 ratio requirement	9.28	10.0
Going concern capital ratio requirement	13.58 ²	14.3
Gone concern capital ratio requirement	13.58	14.3
TLAC ratio requirement	27.16	28.6
Swiss leverage ratio requirements (%)		
Swiss CET1 leverage ratio requirement	3.25	3.5
Going concern leverage ratio requirement	4.75 ²	5.0
Gone concern leverage ratio requirement	4.75	5.0
TLAC leverage ratio requirement	9.5	10.0

- Amounts are shown on a look-through basis. Certain tier 2 instruments and their related tier 2 amortization components were subject to phase out and are no longer eligible as of January 1, 2022. As of 2021, gone concern capital was CHF 41,565 million, including CHF 249 million of such instruments.
- The total requirement excluded the FINMA Pillar 2 capital add-on of CHF 1,850 million relating to the supply chain finance funds matter. This Pillar 2 capital add-on equated to an additional Swiss CET1 capital ratio requirement of 74 basis points and an additional Swiss CET1 leverage ratio requirement of 28 basis points.

39 Litigation

- Refer to “Note 40 – Litigation” in VI – Consolidated financial statements – Credit Suisse Group for further information.

The Bank’s estimate of the aggregate range of reasonably possible losses that are not covered by existing provisions for the proceedings discussed below for which the Bank believes an estimate is possible is zero to CHF 0.9 billion.

38 Assets under management

The following disclosure provides information regarding client assets, assets under management and net new assets as regulated by FINMA.

- Refer to “Note 39 – Assets under management” in VI – Consolidated financial statements – Credit Suisse Group for further information.

Assets under management

end of	2022	2021
CHF billion		
Assets in collective investment instruments managed by Credit Suisse	194.6	228.9
Assets with discretionary mandates	244.1	294.8
Other assets under management	852.8	1,087.3
Assets under management (including double counting)	1,291.5	1,611.0
of which double counting	31.9	45.9

Changes in assets under management

	2022	2021
Assets under management (CHF billion)		
Balance at beginning of period ¹	1,611.0	1,507.0
Net new assets/(net asset outflows)	(122.5)	33.2
Market movements, interest, dividends and foreign exchange	(169.9)	92.4
of which market movements, interest and dividends ²	(165.9)	80.7
of which foreign exchange	(4.0)	11.7
Other effects	(27.1)	(21.6)
Balance at end of period	1,291.5	1,611.0

- Including double counting.
- Net of commissions and other expenses and net of interest expenses charged.

Litigation provisions

	2022
CHF million	
Balance at beginning of period	1,533
Increase in litigation accruals	1,849
Decrease in litigation accruals	(341)
Decrease for settlements and other cash payments	(1,990)
Foreign exchange translation	74
Balance at end of period	1,125

40 Significant subsidiaries and equity method investments

The entities presented in the table below generally include subsidiaries with total assets over CHF 100 million or net income attributable to shareholders over CHF 10 million. Also included

are entities which are deemed regionally significant or otherwise relevant from an operational perspective.

Significant subsidiaries

Company name	Domicile	Currency	Nominal capital in million	Equity interest in %
End of 2022				
Credit Suisse AG				
Alpine Securitization LTD	George Town, Cayman Islands	USD	0.0	100
Banco Credit Suisse (Brasil) S.A.	São Paulo, Brazil	BRL	53.6	100
Banco Credit Suisse (Mexico), S.A.	Mexico City, Mexico	MXN	3,591.7	100
Banco de Investimentos Credit Suisse (Brasil) S.A.	São Paulo, Brazil	BRL	164.8	100
Bank-now AG	Horgen, Switzerland	CHF	30.0	100
Boston Re Ltd.	Hamilton, Bermuda	USD	2.0	100
Casa de Bolsa Credit Suisse (Mexico), S.A. de C.V.	Mexico City, Mexico	MXN	274.0	100
Column Financial, Inc.	Wilmington, United States	USD	0.0	100
Credit Suisse (Australia) Limited	Sydney, Australia	AUD	34.1	100
Credit Suisse (Brasil) S.A. Corretora de Titulos e Valores Mobiliarios	São Paulo, Brazil	BRL	98.4	100
Credit Suisse (Deutschland) Aktiengesellschaft	Frankfurt, Germany	EUR	130.0	100
Credit Suisse (Hong Kong) Limited	Hong Kong, China	HKD	8,192.9	100
Credit Suisse (Italy) S.p.A.	Milan, Italy	EUR	170.0	100
Credit Suisse (Luxembourg) S.A.	Luxembourg, Luxembourg	CHF	230.9	100
Credit Suisse (Qatar) LLC	Doha, Qatar	USD	29.0	100
Credit Suisse (Schweiz) AG	Zurich, Switzerland	CHF	100.0	100
Credit Suisse (Singapore) Limited	Singapore, Singapore	SGD	470.8	100
Credit Suisse (UK) Limited	London, United Kingdom	GBP	245.2	100
Credit Suisse (USA), Inc.	Wilmington, United States	USD	0.0	100
Credit Suisse Asset Management (Schweiz) AG	Zurich, Switzerland	CHF	0.2	100
Credit Suisse Asset Management (UK) Holding Limited	London, United Kingdom	GBP	144.2	100
Credit Suisse Asset Management International Holding Ltd	Zurich, Switzerland	CHF	20.0	100
Credit Suisse Asset Management Investments Ltd	Zurich, Switzerland	CHF	0.1	100
Credit Suisse Asset Management Limited	London, United Kingdom	GBP	45.0	100
Credit Suisse Asset Management Real Estate GmbH	Frankfurt, Germany	EUR	6.1	100
Credit Suisse Asset Management, LLC	Wilmington, United States	USD	1,215.9	100
Credit Suisse Atlas I Investments (Luxembourg) S.à r.l.	Luxembourg, Luxembourg	USD	0.0	100
Credit Suisse Bank (Europe), S.A.	Spain, Madrid	EUR	18.0	100
Credit Suisse Brazil (Bahamas) Limited	Nassau, Bahamas	USD	70.0	100
Credit Suisse Business Analytics (India) Private Limited	Mumbai, India	INR	40.0	100
Credit Suisse Capital LLC	Wilmington, United States	USD	1,702.3	100
Credit Suisse Entrepreneur Capital AG	Zurich, Switzerland	CHF	15.0	100
Credit Suisse Equities (Australia) Limited	Sydney, Australia	AUD	62.5	100
Credit Suisse Finance (India) Private Limited	Mumbai, India	INR	1,050.1	100
Credit Suisse First Boston (Latam Holdings) LLC	George Town, Cayman Islands	USD	28.8	100
Credit Suisse First Boston Finance B.V.	Amsterdam, The Netherlands	EUR	0.0	100
Credit Suisse First Boston Mortgage Capital LLC	Wilmington, United States	USD	6.6	100
Credit Suisse Fund Management S.A.	Luxembourg, Luxembourg	CHF	0.3	100

Significant subsidiaries (continued)

Company name	Domicile	Currency	Nominal capital in million	Equity interest in %
Credit Suisse Fund Services (Luxembourg) S.A.	Luxembourg, Luxembourg	CHF	1.5	100
Credit Suisse Funds AG	Zurich, Switzerland	CHF	7.0	100
Credit Suisse Hedging-Griffo Corretora de Valores S.A.	São Paulo, Brazil	BRL	29.6	100
Credit Suisse Holding Europe (Luxembourg) S.A.	Luxembourg, Luxembourg	CHF	32.6	100
Credit Suisse Holdings (Australia) Limited	Sydney, Australia	AUD	3.0	100
Credit Suisse Holdings (USA), Inc.	Wilmington, United States	USD	0.0	100
Credit Suisse Istanbul Menkul Degerler A.S.	Istanbul, Türkiye	TRY	10.0	100
Credit Suisse Life (Bermuda) Ltd.	Hamilton, Bermuda	USD	0.5	100
Credit Suisse Loan Funding LLC	Wilmington, United States	USD	1.7	100
Credit Suisse Management LLC	Wilmington, United States	USD	891.4	100
Credit Suisse Saudi Arabia	Riyadh, Saudi Arabia	SAR	737.5	100
Credit Suisse Securities (Canada), Inc.	Toronto, Canada	CAD	3.4	100
Credit Suisse Securities (Europe) Limited	London, United Kingdom	USD	3,859.3	100
Credit Suisse Securities (Hong Kong) Limited	Hong Kong, China	HKD	2,080.9	100
Credit Suisse Securities (India) Private Limited	Mumbai, India	INR	2,214.7	100
Credit Suisse Securities (Japan) Limited	Tokyo, Japan	JPY	78,100.0	100
Credit Suisse Securities (Malaysia) Sdn. Bhd.	Kuala Lumpur, Malaysia	MYR	100.0	100
Credit Suisse Securities (Singapore) Pte. Limited	Singapore, Singapore	SGD	30.0	100
Credit Suisse Securities (Thailand) Limited	Bangkok, Thailand	THB	500.0	100
Credit Suisse Securities (USA) LLC	Wilmington, United States	USD	1,200.7	100
Credit Suisse Services (India) Private Limited	Pune, India	INR	0.1	100
Credit Suisse Services (USA) LLC	Wilmington, United States	USD	15.4	100
CS Non-Traditional Products Ltd.	Nassau, Bahamas	USD	0.1	100
CSSEL Guernsey Bare Trust	St. Peter Port, Guernsey	USD	0.0	100
DLJ Mortgage Capital, Inc.	Wilmington, United States	USD	0.0	100
Fides Treasury Services AG	Zurich, Switzerland	CHF	2.0	100
JSC "Bank Credit Suisse (Moscow)"	Moscow, Russia	RUB	460.0	100
Lime Residential, Ltd.	Nassau, Bahamas	USD	0.0	100
LLC "Credit Suisse Securities (Moscow)"	Moscow, Russia	RUB	727.0	100
Merban Equity AG	Zug, Switzerland	CHF	0.1	100
Select Portfolio Servicing, Inc.	Utah, United States	USD	0.0	100
Solar Investco II Ltd.	George Town, Cayman Islands	USD	0.0	100
SP Holding Enterprises Corp.	Wilmington, United States	USD	0.0	100
SR Lease Co VI Ltd.	George Town, Cayman Islands	USD	0.0	100
PT Credit Suisse Sekuritas Indonesia	Jakarta, Indonesia	IDR	235,000.0	99
Credit Suisse Hypotheken AG	Zurich, Switzerland	CHF	0.1	98
Credit Suisse International	London, United Kingdom	USD	11,366.2	98 ¹
Credit Suisse Securities (China) Limited	Beijing, China	CNY	1,089.0	51

¹ Remaining 2% held directly by Credit Suisse Group AG. 98% of voting rights and 98% of equity interest held by Credit Suisse AG.

Significant equity method investments

Company name	Domicile	Equity interest in %
End of 2022		
Credit Suisse AG		
Swisscard AECS GmbH	Horgen, Switzerland	50
ICBC Credit Suisse Asset Management Co., Ltd.	Beijing, China	20
York Capital Management Global Advisors, LLC	New York, United States	5 ¹
Holding Verde Empreendimentos e Participações S.A.	São Paulo, Brazil	0 ¹

¹ The Bank holds a significant noncontrolling interest.

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41 Significant valuation and income recognition differences between US GAAP and Swiss GAAP banking law (true and fair view)

- Refer to “Note 43 – Significant valuation and income recognition differences between US GAAP and Swiss GAAP banking law (true and fair view)” in VI – Consolidated financial statements – Credit Suisse Group for further information.

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[Report of the statutory auditor intentionally omitted solely for purposes of the filing of Group and Bank's Annual Report on Form 20-F filed with the US Securities and Exchange Commission]

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[Report of the statutory auditor intentionally omitted solely for purposes of the filing of Group and Bank's Annual Report on Form 20-F filed with the US Securities and Exchange Commission]

510 Parent company financial statements – Credit Suisse (Bank)

Statement of income

	Note	in	
		2022	2021
Statement of income (CHF million)			
Interest and discount income		7,937	4,295
Interest and dividend income from trading activities		1,488	1,825
Interest and dividend income from financial investments		696	282
Interest expense		(7,867)	(3,832)
Gross income from interest activities		2,254	2,570
(Increase)/release of allowance for default risks and losses from interest activities		(528)	(435)
Net income from interest activities	4	1,726	2,135
Commission income from securities trading and investment activities		1,886	2,425
Commission income from lending activities		661	817
Commission income from other services		205	237
Commission expense		(423)	(578)
Net income from commission and service activities		2,329	2,901
Net income/(loss) from trading activities and fair value option	5	(2,563)	(936)
Income/(loss) from the disposal of financial investments		(49)	(15)
Income from participations		2,780	2,419
Income from real estate		37	45
Other ordinary income		1,536	1,553
Other ordinary expenses		(70)	(138)
Net income from other ordinary activities		4,234	3,864
Personnel expenses	6	1,856	1,820
General and administrative expenses	7	4,192	4,323
Total operating expenses		6,048	6,143
Impairment of participations, depreciation and amortization of tangible fixed assets and intangible assets	1	12,379	12,884
Increase/(release) of provisions and other valuation adjustments, and losses	8	287	120
Operating profit/(loss)		(12,988)	(11,183)
Extraordinary income	8	276	417
Extraordinary expenses	8	(62)	0
Taxes	9	209	(243)
Net profit/(loss)		(12,565)	(11,009)

Balance sheet

	Note	end of	
		2022	2021
Assets (CHF million)			
Cash and other liquid assets		38,566	89,636
Due from banks		62,363	78,931
Securities borrowing and reverse repurchase agreements	10	52,380	87,040
Due from customers	11	117,543	153,874
Mortgage loans	11	5,033	5,025
Trading assets	12	26,072	39,410
Positive replacement values of derivative financial instruments	13	7,390	6,432
Financial investments	14	28,396	27,219
Accrued income and prepaid expenses		3,067	2,482
Participations		30,357	45,501
Tangible fixed assets		1,672	1,954
Intangible assets		0	1
Other assets	15	5,524	1,708
Total assets		378,363	539,213
Total subordinated receivables		15,085	13,898
of which receivables subject to contractual mandatory conversion and/or cancellation		4,218	3,105
Liabilities and shareholders' equity			
Due to banks		54,307	53,582
Securities lending and repurchase agreements	10	52,646	93,155
Customer deposits		87,383	183,172
Trading liabilities	12	2,857	4,786
Negative replacement values of derivative financial instruments	13	4,994	5,065
Liabilities from other financial instruments held at fair value	12, 18	43,725	50,262
Bonds and mortgage-backed bonds		111,770	118,959
Accrued expenses and deferred income		3,338	3,536
Other liabilities	15	525	652
Provisions	20	563	544
Total liabilities		362,108	513,713
Share capital	22	4,400	4,400
Legal capital reserves		34,790	39,534
of which capital contribution reserves		34,790	38,970
Legal income reserves		0	3,461
Free reserves		7,500	0
of which capital contribution reserves		7,500	0
Accumulated losses carried forward		(17,870)	(10,886)
Net profit/(loss)		(12,565)	(11,009)
Total shareholders' equity		16,255	25,500
Total liabilities and shareholders' equity		378,363	539,213
Total subordinated liabilities		68,983	63,417
of which liabilities subject to contractual mandatory conversion and/or cancellation		17,685	17,387

Off-balance sheet transactions

	2022	2021
CHF million		
Contingent liabilities	12,800	14,318
Irrevocable commitments	83,583	91,928
Obligations for calls on shares and additional payments	2	9

Contingent liabilities include guarantees for obligations, performance-related guarantees and letters of comfort issued to third parties. Contingencies with a stated amount are included in the off-balance sheet section of the financial statements. In some instances, the exposure of Credit Suisse AG (Bank parent company) is not defined as an amount but relates to specific circumstances such as the solvency of subsidiaries or the performance of a service.

Joint and several liability

The Bank parent company entered into a contractual arrangement under which it assumed joint and several liability with respect to liabilities of Credit Suisse (Schweiz) AG arising in connection with Credit Suisse (Schweiz) AG's roles under the international covered bonds program.

The Bank parent company is a member of Credit Suisse Group AG's Swiss value added tax (VAT) group and therefore subject to joint and several liability according to the Swiss VAT Act.

Deposit insurance guarantee programs

Deposit-taking banks and securities dealers in Switzerland and certain other European countries are required to ensure the pay-out of protected deposits in case of specified restrictions or compulsory liquidation of a deposit-taking bank.

In Switzerland, deposit-taking banks and securities dealers jointly guaranteed an amount of up to CHF 6 billion under the regulation

applicable until December 31, 2022. Upon occurrence of a pay-out event triggered by a specified restriction of business imposed by the Swiss Financial Market Supervisory Authority FINMA (FINMA) or by the compulsory liquidation of another deposit-taking bank, the Bank parent company's contribution will be calculated based on its share of protected deposits in proportion to total protected deposits. Based on FINMA's estimate for the Bank parent company, the bank's share in the deposit insurance guarantee program for the period July 1, 2022 to December 31, 2022 was CHF 42 million. This deposit insurance guarantee is reflected in irrevocable commitments.

On January 1, 2023, a partial revision of the Swiss Federal Law on Banks and Savings Banks (Bank Law) became effective, which included changes to the Swiss deposit insurance guarantee program. Under the revised program, among other changes, the jointly guaranteed amount is now determined as the higher of CHF 6 billion or 1.6% of all protected deposits.

The amendments also require all member banks to deposit collateral equal to 50% of the Bank's deposit insurance contribution amount in the form of HQLA securities or Swiss francs with a secure third party custodian. Banks will need to comply with this collateralization requirement by the end of November 2023. The reduction in HQLA securities or Swiss francs provided as collateral under the Swiss deposit insurance program due to this new requirement will be partially compensated by a reduced outflow factor applied to the Bank's deposit insurance contribution amount.

- Refer to "Note 25 – Amounts receivable from and amounts payable to related parties" for further information on off-balance sheet transactions.

Statement of changes in equity

	Share capital	Legal capital reserves	Legal income reserves	Free reserves	Accumulated losses carried forward	Net profit/(loss)	Total shareholders' equity
2022 (CHF million)							
Balance at beginning of period	4,400	39,534 ¹	3,461	0	(10,886)	(11,009)	25,500
Appropriation of net loss	—	—	—	—	(11,009)	11,009	—
Increase/(reduction) of capital	—	—	—	—	—	—	—
Capital contributions	—	3,890 ²	—	—	—	—	3,890
Transfer of reserves ⁴	—	(8,064)	(3,461)	7,500	4,025	—	—
Distribution for the financial year 2021	—	(570)	—	—	—	—	(570)
Net profit/(loss)	—	—	—	—	—	(12,565)	(12,565)
Balance at end of period	4,400	34,790 ¹	0	7,500 ³	(17,870)	(12,565)	16,255

- 1 Included capital contribution reserves of CHF 38,970 million at the beginning of the period and CHF 34,790 million at the end of the period. Distributions from capital contribution reserves are free of Swiss withholding tax.
- 2 Represented a-fond-perdu contributions in cash by Credit Suisse Group AG of CHF 1,730 million on November 25, 2022 and CHF 2,160 million on December 9, 2022 to capital contribution reserves.
- 3 Included capital contribution reserves of CHF 7,500 million at the end of the period. Distributions from capital contribution reserves are free of Swiss withholding tax.
- 4 Transfer of legal reserves to free reserves and accumulated losses as approved by the extraordinary meeting of shareholders on April 29, 2022.

1 Company details, business developments and subsequent events

Company details

Credit Suisse AG (Bank parent company) is a Swiss bank incorporated as a joint stock corporation (public limited company) with its registered office in Zurich, Switzerland.

The Bank parent company is a wholly owned subsidiary of Credit Suisse Group AG (Group parent company) domiciled in Switzerland.

Number of employees

end of	2022	2021
Full-time equivalents		
Switzerland	5,680	5,480
Abroad	3,800	3,950
Total	9,480	9,430

Business developments**Credit Suisse Group strategic review**

On October 27, 2022, Credit Suisse announced a series of decisive actions following a strategic review conducted by its Board of Directors and Executive Board, focused on a restructuring of the Investment Bank, an accelerated cost transformation, and strengthened and reallocated capital. The transformation is intended to be funded through divestments, exits, the capital actions and existing resources. As the Group implements these actions, restructuring costs, including from asset impairments and liability valuations, are expected to arise in connection with business activities the Group plans to exit or transfer and their related infrastructure.

Internal control over financial reporting

The Bank parent company's Board of Directors is responsible for establishing and maintaining adequate internal control over financial reporting which is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with Swiss law. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The Board of Directors has made an evaluation and assessment of the internal control over financial reporting as of December 31, 2022. Based upon its review and evaluation, the Board of Directors has concluded that, as of December 31, 2022, the Bank parent company's internal control over financial reporting was not effective as it did not design and maintain an effective risk

assessment process to identify and analyze the risk of material misstatements in its financial statements. This material weakness could result in misstatements of account balances or disclosures that would result in a material misstatement to the annual financial statements that would not be prevented or detected.

As a consequence, the statutory auditor PricewaterhouseCoopers AG (PwC) has issued a qualified opinion on the existence of an internal control designed for the preparation of the financial statements as of December 31, 2022.

Notwithstanding the existence of that material weaknesses in internal control over financial reporting, the Bank parent company confirms that its financial statements as at December 31, 2022 comply with Swiss law as reflected in PwC's report on those financial statements.

The Bank parent company's Board of Directors and the Executive Board have worked continuously in recent years to improve the control environment surrounding financial reporting with increased investment and additional resources and are committed to maintaining a strong internal control environment and implementing measures designed to help ensure that the material weaknesses are remediated with the highest priority. The Bank parent company's Board of Directors and the Executive Board are developing a remediation plan to address the material weakness referred to above, including strengthening the risk and control framework, and which will build on the significant attention that management has devoted to controls to date.

Other than as described above, there were no changes in the Bank parent company's internal control over financial reporting during the period covered by this report that have materially affected, or are reasonably likely to materially affect, the Bank parent company's internal controls over financial reporting.

Valuation of participations

The carrying value of the Bank parent company's participations in subsidiaries is reviewed for potential impairment on at least an annual basis as of December 31 and at any other time that events or circumstances indicate that the participations' value may be impaired. During 2022, adverse market and economic conditions as well as the announcement on October 27, 2022 regarding the updated strategy, the organizational changes and planned business exits, primarily with regard to the Investment Bank division, were triggering events.

Based on the reviews performed, which included the support of an independent valuation specialist appointed by Credit Suisse, the Bank parent company recorded participation impairments of CHF 11.9 billion for the year 2022, which are reflected in the statement of income in impairment of participations, depreciation and amortization of tangible fixed assets and intangible assets.

Impairments of CHF 10.8 billion were recorded against the participation in Credit Suisse Holdings (USA) Inc. and CHF 1.1 billion on other entities.

Capital increase

On November 23, 2022, the Group held an Extraordinary General Meeting, at which shareholders approved two capital increases. The Group completed the first capital increase on November 25, 2022 by way of a share placement of 462,041,884 newly issued shares to qualified investors resulting in gross proceeds of CHF 1.76 billion. The Group completed the second capital increase by way of a rights offering on December 9, 2022. By the end of the rights exercise period, 98.2% of the rights had been exercised for the issuance of 872,989,594 shares. The remaining 16,378,864 newly issued shares for which rights were not exercised were sold in the market. The rights offering resulted in gross proceeds for the Group of CHF 2.25 billion. The capital increases resulted in 1,351,410,342 newly issued shares and gross proceeds for the Group of CHF 4.0 billion. Credit Suisse Group AG made capital contributions of CHF 3.89 billion to the Bank parent company.

Liquidity issues in the fourth quarter of 2022

During early fourth quarter of 2022, Credit Suisse began experiencing significantly higher withdrawals of cash deposits as well as non-renewal of maturing time deposits. However, as the quarter progressed, these outflows stabilized to much lower levels but had not yet reversed by year end. As is normal practice, the Group also limited its access to the capital markets in the period immediately preceding the strategy announcements the Group made on October 27, 2022. These developments also adversely impacted the Bank parent company.

Outflows in assets under management in the fourth quarter of 2022

As previously disclosed for the Group, Credit Suisse began experiencing deposit and net asset outflows in early fourth quarter of 2022 at levels that substantially exceeded the rates incurred in the third quarter of 2022. At the Group level, approximately two-thirds of these net asset outflows in the quarter concentrated in October 2022. The Bank parent company was affected by net asset outflows. Net asset outflows for the year represented approximately 14% of assets under management reported as of the end of 2021.

- Refer to “Note 28 – Assets under management” for further information.

Allfunds Group

In the fourth quarter of 2022, the Bank parent company sold its entire participation in Allfunds Group plc (Allfunds Group), which represented approximately 8.6% of the share capital of Allfunds Group, through an accelerated bookbuild offering to institutional investors. Following the completion of this transaction, the Bank parent company no longer holds any shares in Allfunds Group.

Supply chain finance fund matter

As previously reported, early March 2021, the boards of four supply chain finance funds (SCFF) managed by certain Bank subsidiaries decided to suspend redemptions and subscriptions of those funds to protect the interests of the funds’ investors, to terminate the SCFF and to proceed to their liquidation.

Beginning in the fourth quarter of 2021, the Bank introduced a fee waiver program for clients impacted by this matter wherein certain commissions and fees arising from current and future business transactions may be reimbursed on a quarterly basis, provided certain conditions are met. The Bank parent company incurred negative revenues of CHF 74 million in 2022 relating to this fee waiver program.

Subsequent events

Securitized Products Group

On November 15, 2022, Credit Suisse announced that it entered into definitive transaction agreements to sell a significant part of its Securitized Products Group (SPG) to entities and funds managed by affiliates of Apollo Global Management. This transaction involves phased closings through the first half of 2023 and represents an important step towards a managed exit from the SPG business and to de-risk the bank. On February 7, 2023, the parties completed the first closing of such transaction and the majority of the assets and professionals associated with the transaction are now part of or managed by ATLAS SP Partners, a new standalone credit firm focused on asset-backed financing and capital markets solutions. On February 23, 2023, the parties completed the second closing of such transaction, with further assets transferred.

CS First Boston

On February 9, 2023, the Group announced that it has taken further steps to progress the carveout of CS First Boston as a leading capital markets and advisory business through the acquisition of The Klein Group LLC, the investment banking business as well as the registered broker-dealer of M. Klein & Company LLC (the seller). The purchase price is USD 175 million. To align interests with the Group, the seller will receive a convertible note and a warrant. The note will provide annual payments and convert into, and the warrant entitles the seller to subscribe to, CS First Boston shares at a qualified initial public offering or other liquidity event, at the then-valuation of CS First Boston, less a customary discount. The principal amount of the convertible note is expected to be USD 100 million, with the balance being paid in cash dependent taxes to be paid by the seller at closing. The net present value of the transaction to the Group is expected to be approximately USD 210 million, which also includes interest cost, annual payments on the note and other payments that may in the future become payable in respect of this transaction. The transaction is expected to close in the first half of 2023.

Summary of significant accounting and valuation principles

Basis for accounting

The Bank parent company's standalone financial statements are prepared in accordance with the accounting rules of the Swiss Federal Law on Banks and Savings Banks (Bank Law), the corresponding Implementing Ordinance (Banking Ordinance), the Swiss Financial Market Supervisory Authority's Accounting Ordinance (FINMA Accounting Ordinance) and FINMA circular 2020/1, "Accounting – banks" (Swiss GAAP statutory) as applicable for the preparation of reliable assessment statutory single-entity financial statements (*Statutarischer Einzelabschluss mit zuverlässiger Darstellung*). Supplemental information on unsecured senior debt and structured notes as provided in Note 19 is not a required disclosure under these rules.

The financial year for the Bank parent company ends on December 31.

The consolidated financial statements of Credit Suisse AG and its subsidiaries (Bank) are prepared in accordance with accounting principles generally accepted in the US (US GAAP), which differ in certain material respects from Swiss GAAP statutory.

- Refer to "Note 1 – Summary of significant accounting policies" in VIII – Consolidated financial statements – Credit Suisse (Bank) for a detailed description of the Bank's accounting and valuation principles.
- Refer to "Note 41 – Significant valuation and income recognition differences between US GAAP and Swiss GAAP banking law (true and fair view)" in VIII – Consolidated financial statements – Credit Suisse (Bank) for information on significant valuation and income recognition differences between US GAAP and Swiss GAAP banking law (true and fair view).

In addition to preparing its own consolidated US GAAP financial statements, Credit Suisse AG is included in the scope of the published annual report of Credit Suisse Group AG, which includes a Group management report and consolidated financial statements prepared under US GAAP. The Bank parent company has no listed shares outstanding. Accordingly, the Bank parent company is exempt from providing certain disclosures in its standalone annual report, such as a management report, a statement of cash flows and certain notes to the financial statements.

Certain reclassifications were made to the prior year's financial statements to conform to the current year's presentation and had no impact on net profit/(loss) or total shareholders' equity.

Recording of transactions

Transactions are generally recognized on a trade date basis at the point in time when they become legally binding unless specific guidance is provided for settlement date accounting, such as for issuances of debt and structured notes.

Foreign currency translations

The Bank parent company's reporting currency is Swiss francs (CHF); branches of the Bank parent company can have a functional currency other than Swiss francs.

Transactions denominated in currencies other than the functional currency of the related head office or branch are recorded by remeasuring them in the functional currency of the related head office or branch using the foreign exchange rate on the date of the transaction. As of the date of the balance sheet, monetary assets and liabilities, such as receivables and payables, are reported using the year-end spot foreign exchange rates. Gains and losses from foreign exchange rate differences are recorded in the statement of income in net income/(loss) from trading activities and fair value option. Non-monetary assets and liabilities are recorded using the historic exchange rate.

Assets and liabilities of foreign branches with functional currencies other than the Swiss franc are translated into Swiss franc equivalents using year-end spot foreign exchange rates, whereas revenues and expenses are translated at weighted average foreign exchange rates for the period. All foreign exchange translation effects are recognized in the statement of income in net income/(loss) from trading activities and fair value option.

The following table provides the foreign exchange rates applied for the preparation of the Bank parent company's standalone financial statements.

Foreign exchange rates

	End of	
	2022	2021
1 USD / 1 CHF	0.92	0.91
1 EUR / 1 CHF	0.99	1.03
1 GBP / 1 CHF	1.12	1.24
100 JPY / 1 CHF	0.70	0.79

Cash and other liquid assets

Cash and other liquid assets are recognized at their nominal value less any necessary allowance for credit losses.

Due from banks

Amounts due from banks, including interest due but not paid, are recognized at their nominal value less any necessary allowance for credit losses.

Securities lending and borrowing, repurchase and reverse repurchase agreements

Securities lending and borrowing as well as repurchase and reverse repurchase agreements are recorded at the nominal value of the cash amounts exchanged less any necessary allowance for credit losses.

Due from customers and mortgage loans

Amounts due from customers and mortgage loans, including interest due but not paid, are recognized at their nominal value less any necessary allowance for credit losses.

Allowance for credit losses and non-accrual financial assets

The current expected credit loss (CECL) requirements in accordance with US GAAP as allowed under the Swiss GAAP statutory accounting rules for banks apply to all financial assets and off-balance sheet exposures measured at amortized cost or nominal value less allowance for credit losses. The expected credit loss amounts are based on a forward-looking, lifetime CECL model by incorporating reasonable and supportable forecasts of future economic conditions available at the reporting date. The expected credit loss amounts are estimated over the contractual term of the financial assets, taking into account the effect of prepayments. This requires considerable judgment over how changes in macroeconomic factors (MEFs) as well as changes in forward-looking borrower-specific characteristics will affect the expected credit loss amounts.

The Bank parent company measures expected credit losses of financial assets on a collective (pool) basis when similar risk characteristics exist. For financial assets which do not share similar risk characteristics, expected credit losses are evaluated on an individual basis. Expected credit loss amounts are probability-weighted estimates of potential credit losses based on historical frequency, current trends and conditions as well as forecasted MEFs, such as gross domestic product (GDP), unemployment rates and interest rates.

For financial assets that are performing at the reporting date, the allowance for credit losses is generally measured using a probability of default (PD)/loss given default (LGD) approach under which PD, LGD and exposure at default (EAD) are estimated. For financial assets that are credit-impaired at the reporting date, the Bank parent company generally applies a discounted cash flow approach to determine the difference between the gross carrying amount and the present value of estimated future cash flows.

An allowance for credit losses is deducted from the amortized cost base or nominal value, respectively, of the financial asset. Changes in the allowance for credit losses are recorded in the statement of income in (increase)/release of allowance for default risks and losses from interest activities, or, if related to provisions for off-balance sheet credit exposures, in increase/(release) of provisions and other valuation adjustments, and losses.

Accrued interest from financial assets is recognized in the balance sheet in accrued income and prepaid expenses. Current expected credit losses are calculated on accrued interest receivables and any uncollectible accrued interest receivables are written off by reversing the related interest income.

Write-off of a financial asset occurs when it is considered certain that there is no possibility of recovering the outstanding principal. If the amount of loss on write-off is greater than the accumulated allowance for credit losses, the difference results in an additional credit loss. The additional credit loss is first recognized as an addition to the allowance; the allowance is then applied against the gross carrying amount. Any repossessed collateral is initially

measured at fair value. The subsequent measurement depends on the nature of the collateral.

Expected recoveries on financial assets previously written off have to be reflected in the allowance for credit losses; for this purpose, the amount of expected recoveries cannot exceed the aggregate amounts previously written off. Accordingly, expected recoveries from financial assets previously written off may result in an overall negative allowance for credit loss balance.

The Bank parent company's loan portfolios are reflected in the balance sheet in due from customers, due from banks and mortgage loans. A loan is classified as non-performing and thus considered credit impaired no later than when the contractual payments of principal and/or interest are more than 90 days past due. However, management may determine that a loan should be classified as non-performing notwithstanding that contractual payments of principal and/or interest are less than 90 days past due. The Bank parent company continues to add accrued interest receivable to the loan's unpaid principal balance for collection purposes; however, a credit provision is recorded, resulting in no interest income recognition. A loan can be further downgraded to non-interest-earning when the collection of interest is considered so doubtful that further accrual of interest is deemed inappropriate. Generally, non-performing loans and non-interest-earning loans may be restored to performing status only when delinquent principal and interest are brought up to date in accordance with the terms of the loan agreement and when certain performance criteria are met. Interest collected on non-performing loans and non-interest-earning loans is accounted for using the cash basis or the cost recovery method or a combination of both.

Trading assets and liabilities

In order to qualify as trading activity, positions (assets and liabilities) have to be actively managed with the objective of realizing gains from fluctuations in market prices, which includes an ongoing willingness to increase, decrease, close or hedge risk positions. Trading positions also include positions held with the intention of generating gains from arbitrage. The designation as trading position has to be made, and documented accordingly, upon conclusion of the transaction.

Trading securities are carried at fair value with changes in fair value recorded in the statement of income in net income/(loss) from trading activities and fair value option. The fair value is determined using either the price set on a price-efficient and liquid market or a price calculated using a valuation model.

Interest and dividend income resulting from trading positions is recorded in gross income from interest activities. Refinancing costs are not charged to net income from trading activities and fair value option.

Reclassifications between trading assets, financial investments and participations are allowed. Reclassifications between financial investments and participations are recorded at the carrying value.

Reclassifications between trading assets and financial investments or participations, respectively, are recorded at the fair value valid at the time when the decision to reclassify is made. Resulting gains or losses are recognized applying the same accounting principles as for the recognition of results from the disposal of such assets.

Derivative financial instruments and hedge accounting

Derivative financial instruments consist of trading and hedging instruments.

Positive and negative replacement values of outstanding derivative financial instruments arising from transactions for the Bank parent company's own account are disclosed as separate line items in the balance sheet, with related fair value changes recorded in net income from trading activities and fair value option.

Replacement values of derivative financial instruments arising from transactions for the account of customers are recognized only if a risk exists that a customer or other counterparty (e.g., exchange, exchange member, issuer of the instrument or broker) of a transaction is no longer able to meet its obligations, resulting in an exposure to loss for the Bank parent company during the remaining term of the contract.

Hedge accounting is determined, tested for effectiveness and disclosed in accordance with US GAAP as allowed under the Swiss GAAP statutory accounting rules for banks. Derivative financial instruments used as hedging instruments in hedging relationships are always recorded at fair value.

For fair value hedges, gains and losses resulting from the valuation of the hedging instruments are recorded in the same statement of income line items in which gains and losses from the hedged items are recognized. Valuation impacts resulting from fair valuing the risk being hedged of the hedged items are not recorded as an adjustment to the carrying value of the hedged items but are recorded in the compensation account included in other assets or other liabilities.

For cash flow hedges, gains and losses resulting from the valuation of the hedging instruments are deferred and recorded in the compensation account included in other assets or other liabilities. The deferred amounts are released and recorded in the statement of income in the same period when the cash flows from the hedged transactions or hedged items are recognized in earnings.

Other financial instruments held at fair value and liabilities from other financial instruments held at fair value

Financial instruments which are not part of the trading portfolio may be measured at fair value and classified in other financial instruments held at fair value or liabilities from other financial instruments held at fair value if all of the following conditions are met:

- The financial instruments are valued at fair value and are subject to risk management corresponding to that for trading positions including a documented risk management and investment strategy which ensures appropriate recognition, measurement and limitation of the miscellaneous risks.

- An economic hedging relationship between the financial instruments on the asset side and the financial instruments on the liability side exists and gains and losses from the fair valuation of these financial instruments are largely offset (avoidance of an accounting mismatch).
- Impacts of changes in own credit spreads on the fair value of an issued debt instrument following initial recognition cannot be reflected in the statement of income. Impacts of changes in own credit spreads are recognized in the compensation account.

Changes in fair value are recorded in net income from trading activities and fair value option.

Financial investments

Equity securities which do not qualify as trading securities are included in financial investments and measured at the lower of cost or market value (LOCOM). Valuation adjustments are recorded in other ordinary income or other ordinary expenses.

Debt securities which do not qualify as trading securities are included in financial investments and further classified into debt securities held-to-maturity, which the Bank parent company intends to hold until maturity, and debt securities available-for-sale, which the Bank parent company does not intend to hold until maturity.

Debt securities held-to-maturity are measured at amortized cost less allowance for credit losses. An allowance for credit losses related to default risk is reported in the statement of income in increase/(release) of allowance for default risks and losses from interest activities. If debt securities held-to-maturity are sold or repaid before original maturity, the interest component of any realized gains or losses is deferred and amortized over the remaining original life of the debt security.

Debt securities available-for-sale are measured at the lower of amortized cost or market value (LOACOM). Valuation adjustments for credit- and market-related adjustments are recorded in other ordinary income or other ordinary expenses.

Participations

Equity securities in a company which are owned by the Bank parent company qualify as a participation if these securities are held for the purpose of permanent investment, irrespective of the percentage of voting shares held, or, if these equity securities are in a banking and financial market infrastructure enterprise, in particular participations in joint organizations. Participations can be held by the Bank parent company in Switzerland and its foreign branches.

Participations are measured at acquisition cost less any impairments. Goodwill and intangible assets related to the acquisition of a participation are part of the participation's historical cost under Swiss GAAP statutory and not separately identified and recorded. Impairment is assessed individually for each participation at each balance sheet date or at any point in time when facts and circumstances would indicate that an event has occurred which triggers an impairment review. An impairment is recorded if the carrying

value exceeds the fair value of a participation. If the fair value of a participation recovers significantly and is considered sustainable, a prior period impairment can be reversed up to the historical cost value of the participation.

Dividends received from participations are generally recorded as dividend income. If dividend payments from a participation are made in the form of a capital repayment from paid-in capital or if the dividends do not result from sustainable profits and represent repayment of capital previously contributed to the respective participation such dividends are recorded as a reduction of the carrying value of the respective participation.

Other assets and other liabilities

Other assets and other liabilities are generally recorded at cost or nominal value. Other assets and other liabilities include the net balance of the compensation accounts. The compensation account assets and liabilities include changes in the book values of assets and liabilities that are not recognized in the statement of income of a reporting period. In particular, the compensation accounts are used to record the hedge effectiveness, impacts from changes in own credit spreads and deferred gains or losses from the sale of debt securities held-to-maturity. The gross amounts of compensation account assets and liabilities are offset and reported net on the balance sheet either in other assets or in other liabilities.

Due to banks

Amounts due to banks are recognized at their nominal value.

Customer deposits

Amounts due in respect of customer deposits are recognized at their nominal value.

Bonds and mortgage-backed bonds

Bonds and mortgage-backed bonds are carried at amortized cost. Debt issuance costs are recorded in accrued income and prepaid expenses.

Provisions

Provisions are recorded to cover specific risks related to a past event prior to the balance sheet date. Further, provisions for probable obligations and for expected credit losses on off-balance sheet credit exposures are recorded. Provisions represent a probable obligation for which the amount and/or due date are uncertain but can be reasonably estimated. Where the time factor has a material impact, the amount of the provision is discounted.

Provisions which are no longer economically necessary and which are not used in the same reporting period to cover probable obligations of the same nature are released to income:

- tax provisions through line item taxes;
- provisions for pension benefit obligations through personnel expenses; and
- provisions for current and expected credit losses related to off-balance sheet credit exposures and other provisions including

litigation provisions through line item increase/(release) of provisions and other value adjustments, and losses.

Commission income

Commission income is recognized when arrangements exist, services have been rendered, the revenue is fixed or determinable and collectability is reasonably assured. As applicable, commissions and fees are recognized ratably over the service period and either accrued or deferred in the balance sheet in the line items accrued income and prepaid expenses and accrued expenses and deferred income, respectively.

Commission income and commission expense are generally recorded on a gross basis in the statement of income.

Income tax accounting

Income taxes are based on the tax laws of each tax jurisdiction and are expensed in the period in which the taxable profits are made.

Tax provisions are recognized in the statement of income in the line item taxes and included in provisions on the balance sheet.

In line with the accounting rules for single-entity statutory financial statements, deferred tax assets on net operating losses are not recognized. Deferred taxation items for temporary differences between the carrying value of an asset or a liability under Swiss GAAP statutory and the respective value for tax reporting, i.e., its tax base, are also not recognized.

Extraordinary income and expense

The recognition of extraordinary income or expense is limited to transactions which are non-recurring and non-operating, such as the disposal of fixed assets or participations, the reversal of prior-period impairment on participations, or income and expense related to other reporting periods if they account for the correction of errors with regard to non-operating transactions of prior periods.

Contingent liabilities and irrevocable commitments

Contingent liabilities are recorded as off-balance sheet transactions at their maximum potential payment amounts. Irrevocable commitments are recorded as off-balance sheet transactions at their nominal values, except for irrevocable loan commitments that are cancellable with a notice period of six weeks or less. As necessary, related provisions are recorded on the balance sheet in line item provisions.

For undrawn irrevocable loan commitments, the expected credit loss amount is calculated based on the difference between the contractual cash flows that are due to the Bank parent company if the commitment is drawn and the cash flows that the Bank parent company expects to receive, in order to estimate the provision for expected credit losses. For credit guarantees, expected credit losses are recognized for the contingency of the credit guarantee. Provisions for off-balance sheet credit exposures are recognized on the balance sheet in provisions.

Capital adequacy disclosures

Capital adequacy disclosures for the Group and the Bank parent company are presented in the publications “Pillar 3 and regulatory disclosures – Credit Suisse Group AG” and “Regulatory disclosures – Subsidiaries”, respectively.

- Refer to [credit-suisse.com/regulatorydisclosures](https://www.credit-suisse.com/regulatorydisclosures) for additional information.

Prior period information

In 2022, the statement of income item “Increase/(release) of provisions and other valuation adjustments, and losses” included additional expenses of CHF 37 million related to 2021 to reflect the impact of a correction in loan commitments that are subject to the expected credit loss approach.

- Refer to “Note 8 – Increase/(release) of provisions and other valuation adjustments, losses and extraordinary income and expenses” and “Note 20 – Provisions and allowance for credit losses” for further information.

For the year ended December 31, 2021, the carrying value of due from customers secured by other collateral was revised from CHF 79,239 million to CHF 87,188 million, reflecting an increase of CHF 7,949 million due to a reassessment of collateral, with the corresponding unsecured exposure reduced by the same amount. Accordingly, the allowance for credit losses on loans and receivables secured by other collateral was revised from CHF 459 million to CHF 604 million, reflecting an increase of CHF 145 million, with the corresponding allowance for credit losses on unsecured loans and receivables reduced by the same amount.

- Refer to “Note 11 – Collateral and impaired loans and receivables” for further information.

For the year ended December 31, 2021, the notional amount of “Interest rate products – Options bought and sold (OTC)” was revised from CHF 162,050 million to CHF 214,558 million, within the corresponding positive replacement value revised from CHF 1,265 million to CHF 1,736 million and the negative replacement value revised from CHF 1,074 million to CHF 1,545 million. Further, the notional amount of “Precious metal products – Options bought and sold (OTC)” was revised from CHF 10,560 million to CHF 11,442 million. With the revision of the positive and negative replacement values, corresponding changes were made to the disclosure of model-based replacement values and the disclosure of replacement values before consideration of master netting agreements.

- Refer to “Note 13 – Derivative financial instruments” for further information.

As noted in our 2021 Annual Report, the Bank parent company identified an accounting issue that was not material to the prior period financial statements. The Bank parent company identified this accounting issue with respect to the net balance sheet treatment relating to the presentation of a limited population of certain securities lending and borrowing activities. As a result, the balance sheet positions for assets and liabilities from securities lending and borrowing, repurchase and reverse repurchase agreements and the related note disclosure related to these activities were presented on a gross basis and prior periods were revised. Beginning with the quarter ended June 30, 2022, the Bank parent company has recorded these securities lending and borrowing transactions as a single unit of account and as a result these transactions will no longer be presented on a gross basis. The Bank parent company did not adjust prior period financial information, which continue to reflect a presentation on a gross basis.

3 Risk management, derivatives and hedging activities

Risk management

Governance

The risk governance framework of the Bank parent company and its consolidated subsidiaries (the Bank) is based on a “three lines of defense” governance model, where each line has a specific role with defined responsibilities and works in close collaboration to identify, assess and mitigate risks.

The first line of defense represents the function or business area that allows the risk to enter the Bank from clients, employees or other third parties or events and is responsible for identifying, measuring, managing and reporting risks on a front-to-back basis in line with the Board’s risk appetite. The first line of defense is fully accountable for managing risks inherent in its activities.

The second line of defense consists of independent risk management, compliance and control functions which are responsible for establishing risk management framework and associated control standards, and providing independent challenge to the activities,

processes and controls carried out by the first line of defense. In this context, the Risk function (Risk), for example, is responsible for articulating and designing the risk appetite framework across the Bank. The second line of defense can perform and complement the responsibility of identification, measurement, management and reporting of risks, while the first line of defense retains the overall accountability for risk management related to its activities. Independent risk management in the second line of defense is not limited to the Risk and Compliance functions. Instead, it comprises all relevant standard setting and independent review and challenge activities over processes and controls carried out by the first line of defense in relation to the risks faced.

The third line of defense is the Internal Audit function, which monitors the effectiveness of controls across various functions and operations, including risk management, compliance and governance practices.

Risk management of the Bank is aligned to the overall risk management governance of the Group. All members of the Board and the Executive Board of the Bank are also members of the Board

and the Executive Board of the Group. The Bank's governance includes a committee structure and a comprehensive set of corporate policies which are developed, reviewed and approved by the Board, the Executive Board, their respective committees, the Chief Risk Officer of the Group (CRO) and the board of directors of significant subsidiaries, in accordance with their respective responsibilities and levels of authority.

Board of Directors

The Board is responsible for the Bank's overall strategic direction, supervision and control, and for defining the Bank's overall tolerance for risk. In particular, the Board approves the risk management framework and sets overall risk appetite for the Group in consultation with its Risk Committee, among other responsibilities and authorities defined in the Organizational Guidelines and Regulations (OGR).

The **Risk Committee** is responsible for assisting the Board in fulfilling its oversight responsibilities of risk management. These responsibilities include the oversight of the enterprise-wide risk management and practices, the promotion of a sound risk culture with clear accountability and ownership, the review of key risks and resources, and the assessment of the effectiveness and efficiency of the Group's risk function.

The **Audit Committee** is responsible for assisting the Board in fulfilling its oversight duties by monitoring management's approach with respect to financial reporting, internal controls, accounting and legal and regulatory compliance. Additionally, the Audit Committee monitors the qualifications, independence and performance of external auditors and Internal Audit.

The **Conduct and Financial Crime Control Committee** is responsible for assisting the Board in fulfilling its oversight duties with respect to the Bank's exposure to financial crime risk. It is tasked with monitoring and assessing the effectiveness of financial crime compliance programs and initiatives focused on improving conduct and vigilance within the context of combatting financial crime.

The **Compensation Committee** is responsible for determining, reviewing and proposing compensation and related principles for the Bank. Under the compensation risk framework, various corporate functions including Risk, Compliance, General Counsel, People, Internal Audit and Product Control, provide input for the assessment of the divisions' overall risk and conduct performance and determine an overall risk rating. The overall risk rating is shared and discussed with the chairs of the Audit Committee, Conduct and Financial Crime Control Committee and Risk Committee, and is contemplated as part of the divisions' and certain individuals' performance.

The **Digital Transformation and Technology Committee** is responsible for assisting the Board in setting, steering and overseeing the execution of the bank's data, digitalization and technology strategy. The committee is tasked with overseeing the strategically aligned execution of the bank's major digitalization

and technology initiatives as well as governance standards for digital transformation across the bank.

Executive Board

The Executive Board is responsible for establishing the Bank's strategic business plans, subject to approval by the Board, and implementing such plans. It further reviews and coordinates significant initiatives and approves bank-wide policies. The CRO and the Chief Compliance Officer of the Group (CCO) represent the Risk and Compliance functions, respectively, and provide regular information and reports to the Executive Board and the Board.

The **Executive Board Risk Management Committee (ExB RMC)**, co-chaired by the Group's CEO, CRO and CCO, is primarily responsible for steering and monitoring the development and execution of the Group's risk management strategy, approving risk appetite for financial and non-financial risks under its authority, monitoring risk appetite metrics including limit breaches and remediation, as well as reviewing the aggregate and highest risk exposures and risk concentrations. The ExB RMC approves applications for risk limits that require final approval by the Risk Committee or the Board. The ExB RMC is also responsible for reviewing and assessing the internal control system and resolving risk issues raised by subordinated risk committees or ExB RMC members, or escalation to the Board.

The **Group Capital Allocation and Liability Management Committee (Group CALMC)** reviews the funding and balance sheet trends and activities, plans and monitors regulatory and business liquidity requirements and internal and regulatory capital adequacy. Group CALMC also reviews and proposes the contingency funding plan for approval by the Board, reviews the position taking of interest rate risk in the banking book and decides on changes in approaches relating to investment of own equity. Further, it sets internal targets, approves and reviews adherence to internal targets for capital allocation, funding, liquidity and capital management actions, including the review and monitoring of share repurchases.

The **Credit Suisse AG Parent Capital Allocation, Liability and Risk Management Committee (Credit Suisse AG Parent CALRMC)** reviews the capital, liquidity and funding trends and activities of Credit Suisse AG (Bank parent company). The Credit Suisse AG Parent CALRMC reviews and challenges the financial and capital plans of major subsidiaries of the Bank parent company, including key risks and key dependencies, such as dividends or other capital repatriations from the major subsidiaries to the Bank parent company, ahead of approvals by the respective subsidiary governance bodies. The committee also monitors and reviews the Bank parent company's aggregate risk profile, in particular the Bank parent company-specific vulnerabilities, and approves risk appetite for the Bank parent company and its branches.

The **Valuation Risk Management Committee (VARMC)** is responsible for establishing policies regarding the valuation of

certain material assets and the policies and calculation methodologies applied in the valuation process. Further, VARMC is responsible for monitoring and assessing valuation risks, reviewing inventory valuation conclusions and directing the resolution of significant inventory valuation issues.

Risk appetite framework

The Bank maintains a comprehensive Bank-wide risk appetite framework, which is governed by a global policy and provides a robust foundation for risk appetite setting and management across the Bank. A key element of the framework is a detailed statement of the Board-approved risk appetite which is aligned to the Bank's financial and capital plans. The framework also encompasses the processes and systems for assessing the appropriate level of risk appetite required to constrain the Bank's overall risk profile.

The Bank's risk appetite framework is governed by an overarching global policy that encompasses the suite of specific policies, processes and systems, with which the risk constraints are calibrated and the risk profile is managed. Strategic risk objectives (SROs) are effectively embedded across the organization at the Bank, business division and legal entity level through a suite of different types of risk measures (quantitative and qualitative) as part of the Bank's efforts to ensure it operates within the thresholds defined by the Board. The SROs are regularly assessed as part of the continuing enhancements to the Bank's risk management processes. In February 2023, the Board approved an enhanced set of SROs to support the Bank's strategic objectives, which consist of:

- promoting stability of earnings to support performance in line with financial objectives;
- ensuring sound management of funding and liquidity in normal and stressed conditions;
- maintaining capital adequacy under both normal and stressed conditions;
- maintaining the integrity of the Bank's business and operations;
- controlling concentrations within position risk or revenues which may pose a material risk to the Bank;
- managing environmental, social and governance risks as well as impacts related to the provision of financial services in line with our sustainability principles and commitments; and
- managing intercompany risk.

Bank-wide risk appetite is determined in partnership with the financial and capital planning process at least annually, based on bottom-up forecasts, risk-reward and divisional objectives that reflect planned risk usage by the businesses and top-down, in alignment with Board-driven strategic risk objectives and risk appetite. Scenario-based stress testing of financial and capital plans is an essential element in the risk appetite calibration process, through which the strategic risk objectives, financial resources and business plans are aligned. The risk appetite is approved through a number of internal governance forums, including the Credit Suisse AG Parent CALRMC, the Risk Committee and, subsequently, by the Board. Ad hoc risk appetite reviews may be triggered by material market events, material loss

events, material revisions to the financial and capital plans, the internal capital adequacy assessment process (ICAAP) results as well as following breaches of Board-level risk constraints.

The risk appetite statement is the formal plan, approved by the Board, for Bank-wide risk appetite. Legal entity risk appetites are set by the local legal entity board of directors within the limits established by the Bank.

A core aspect of the Bank's risk appetite framework is a sound system of integrated risk constraints. These allow the Bank to maintain the risk profile within its overall risk appetite, and encourage meaningful discussion between the relevant businesses, Risk functions and members of senior management around the evolution of the Bank's risk profile and risk appetite. Considerations include changing external factors (such as market developments, geopolitical conditions and client demand) as well as internal factors (such as financial resources, business needs and strategic views). The Bank's risk appetite framework utilizes a suite of different types of risk constraints to reflect the aggregate risk appetite of the Bank. The risk constraints restrict the Bank's maximum balance sheet and off-balance sheet exposure given the market environment, business strategy and financial resources available to absorb losses.

Risk coverage and management

The Bank uses a wide range of risk management practices to address the variety of risks that arise from its business activities. Policies, processes, standards, risk assessment and measurement methodologies, risk appetite constraints, and risk monitoring and reporting are key components of its risk management practices. The Bank's risk management practices complement each other in the Bank's analysis of potential loss, support the identification of interdependencies and interactions of risks across the organization and provide a comprehensive view of its exposures. The Bank regularly reviews and updates its risk management practices to promote consistency with its business activities and relevance to its business and financial strategies. The Bank's main risk types include the following:

- Capital risk
- Credit risk
- Market risk
- Funding liquidity risk
- Non-financial risk
- Model risk
- Reputational risk
- Climate-related risks
- Business risk
- Fiduciary risk
- Pension risk

Climate-related risks are a core element of sustainability risks. Sustainability risks are potentially adverse impacts on the environment, on people or society, which may be caused by, contributed to or directly linked to financial service providers, usually through the activities of their clients. These may manifest themselves as

reputational risks, but potentially also other risk types such as credit or non-financial risks. Credit Suisse considers sustainability risks in its Group-wide reputational risk review process.

- Refer to “Reputational risk” for further information on sustainability risks.

Capital risk

Capital risk is the risk that the Bank does not have adequate capital to support its activities and maintain the minimum capital requirements. The Bank maintains a robust and comprehensive framework for assessing capital adequacy, defining internal capital targets and ensuring that these capital targets are consistent with the Bank’s overall risk profile and the current operating environment.

Capital risk results from the Bank’s risk exposures, available capital resources, regulatory requirements and accounting standards.

The stress testing framework and economic risk capital are tools used by the Bank to evaluate and manage capital risk. The capital management framework is designed to ensure that the Bank meets all regulatory capital requirements for the Bank and its regulated subsidiaries.

Stress testing framework

Stress testing (or scenario analysis) represents a risk management approach that formulates hypothetical questions, including what would happen to the Bank’s portfolio if, for example, historic or adverse forward-looking events were to occur.

Stress testing is a fundamental element of the Bank-wide risk appetite framework included in overall risk management to ensure that the Bank’s financial position and risk profile provide sufficient resilience to withstand the impact of severe economic conditions. Stress testing results are monitored against limits, and are used in risk appetite discussions and strategic business planning and to support the Bank’s ICAAP. Within the risk appetite framework, the ExB RMC sets Bank-wide and divisional stressed position loss limits to correspond to minimum post-stress capital ratios.

Economic risk capital

Economic risk capital estimates the amount of capital needed to remain solvent and in business under extreme market, business and operating conditions over the period of one year, given a target financial strength (the Bank’s long-term credit rating). This framework allows the Bank to assess, monitor and manage capital adequacy and solvency risk in both “going concern” and “gone concern” scenarios.

Credit risk

Credit risk is the risk of financial loss arising as a result of a borrower or counterparty failing to meet its financial obligations or as a result of deterioration in the credit quality of the borrower or counterparty.

Credit risk can arise from the execution of the Bank’s business strategy in the divisions and includes risk positions such as exposures directly held in the form of lending products (including

loans, money market deposits and credit guarantees) or traded products (derivatives, securities financing), shorter-term exposures such as underwriting commitments pending distribution, and settlement risk related to the exchange of cash or securities outside of typical delivery versus payment structures.

The Bank uses a credit risk management framework which provides for the consistent evaluation, measurement and management of credit risk across the Bank. Assessment of credit risk exposures for internal risk estimates and risk-weighted assets are calculated based on probability of default (PD), loss given default (LGD) and exposure at default (EAD) models. The credit risk framework incorporates the following core elements:

- counterparty and transaction assessments: application of internal credit ratings (PD), assignment of LGD and EAD values in relation to counterparties and transactions;
- credit limits: establishment of credit limits, including limits based on notional exposure, potential future exposure and stress exposure, subject to approval by delegated authority holders, to serve as primary risk controls on exposures and to prevent undue risk concentrations;
- credit monitoring, impairments and provisions: processes to support the ongoing monitoring and management of credit exposures, supporting the early identification of deterioration and any subsequent impact; and
- risk mitigation: active management of credit exposures through the use of cash sales, participations, collateral, guarantees, insurance or hedging instruments.

In addition to traditional credit exposure measurement, monitoring and management using current and potential future exposure metrics, Credit Risk performs counterparty and portfolio credit risk assessments of the impact of various internal stress test scenarios. Credit Risk assesses the impact to credit risk exposures arising from market movements in accordance with the scenario narrative, which can further support the identification of concentration or tail risks. Its scenario suite includes historical scenarios as well as forward-looking scenarios which are used across the Risk function.

Counterparty and transaction assessments

The Bank evaluates and assesses counterparties and clients to whom it has credit exposures. For the majority of counterparties and clients, the Bank uses internally developed statistical rating models to determine internal credit ratings which are used across the Risk function.

- Refer to “Credit quality information” in Note 21 – Expected credit losses and credit quality for further information on counterparty transaction assessments.

Credit limits

Credit exposures are managed at the counterparty and ultimate parent level in accordance with credit limits which apply in relation to notional exposure, potential future exposure and stress exposure where appropriate. Credit limits are established to constrain the lending business where exposure is typically related to committed loan amounts, and similarly in relation to the trading business where exposure is typically subject to model-based

estimation of future exposure amounts. Credit limits to counter-parties and groups of connected companies are subject to formal approval under delegated authority within the divisions where the credit exposures are generated, and, where significant in terms of size or risk profile, are subject to further escalation to the Group chief credit officer or the CRO.

In addition to counterparty and ultimate parent exposures, credit limits and flags are also applied at the portfolio level to monitor and manage risk concentrations such as to specific industries, countries or products. In addition, credit risk concentration is regularly supervised by credit and risk management committees. Breaches of credit limits and other risk constraints, including stress scenario impacts, are monitored on an ongoing basis with formal escalation procedures in place. Limit breaches require escalation to the relevant limit setting authority.

Credit monitoring, impairments and provisions

A credit quality monitoring process is performed to provide for early identification of possible changes in the creditworthiness of clients, and includes regular asset and collateral quality reviews, business and financial statement analysis, and relevant economic and industry studies. Credit Risk maintains regularly updated watch lists and holds review meetings to re-assess counterparties that could be subject to adverse changes in creditworthiness. The review of the credit quality of clients and counterparties does not depend on the accounting treatment of the asset or commitment.

In the event that a deterioration in creditworthiness is likely to result in a default, credit exposures are transferred to the regional recovery management functions within Credit Risk. The determination of any allowance for credit losses in relation to such exposures is based on an assessment of the exposure profile and expectations for recovery. The recoverability of loans in recovery management is regularly reviewed. The frequency of reviews depends on the individual risk profile of the respective positions.

The Bank has an impairment process for loans valued at amortized cost which are specifically classified as potential problem loans, non-performing loans, non-interest-earning loans or restructured loans. The Bank maintains specific allowances for credit losses, which the Bank considers to be a reasonable estimate of losses identified in the existing credit portfolio, and provides for credit losses based on a regular and detailed analysis of all counterparties, taking collateral value into consideration, where applicable. If uncertainty exists as to the repayment of either principal or interest, a specific allowance for credit losses is either created or adjusted accordingly. The specific allowance for credit losses is revalued regularly by the recovery management function depending on the risk profile of the borrower or credit-relevant events. The Bank regularly reviews the appropriateness of allowances for credit losses.

- Refer to “Estimating expected credit losses” in Note 21 – Expected credit losses and credit quality for further information on expected credit losses under the CECL accounting guidance.

Risk mitigation

Drawn and undrawn credit exposures are managed by taking financial and non-financial collateral supported by enforceable

legal documentation, as well as by utilizing credit hedging techniques. Financial collateral in the form of cash, marketable securities (e.g., equities, bonds or funds) and guarantees serves to mitigate the inherent risk of credit loss and to improve recoveries in the event of a default. Financial collateral received in the form of securities is subject to controls on eligibility and is supported by frequent market valuation depending on the asset class and are monitored to determine whether any margin calls are required to ensure exposures remain adequately collateralized. Depending on the quality of the collateral, appropriate haircuts are applied for risk management purposes. Collateral monitoring, management and margining are applied to credit exposures resulting from both on balance sheet financing of securities and synthetic financing of positions for clients through derivative contracts.

Non-financial collateral such as residential and commercial real estate, tangible assets (e.g., ships or aircraft), inventories and commodities are valued at the time of credit approval and periodically thereafter depending on the type of credit exposure and collateral coverage ratio.

In addition to collateral, the Bank also utilizes credit hedging in the form of protection provided by single-name and index credit default swaps as well as structured hedging and insurance products. Credit hedging is used to mitigate risks arising from the loan portfolio, loan underwriting exposures and counterparty credit risk. Hedging is intended to reduce the risk of loss from a specific counterparty default or broader downturn in markets that impacts the overall credit risk portfolio. Credit hedging contracts are typically bilateral or centrally cleared derivative transactions and are subject to collateralized trading arrangements. The Bank evaluates hedging risk mitigation so that basis or tenor risk can be appropriately identified and managed.

In addition to collateral and hedging strategies, the Bank also actively manages its loan portfolio and may sell or sub-participate positions in the loan portfolio as a further form of risk mitigation.

Market risk

Market risk is the risk of financial loss arising from movements in market risk factors. The movements in market risk factors that generate financial losses are considered to be adverse changes in interest rates, credit spreads, foreign exchange rates, equity and commodity prices and other factors, such as market volatility and the correlation of market prices across asset classes. A typical transaction or position in financial instruments may be exposed to a number of different market risk factors. Market risks arise from both trading and non-trading activities.

Traded market risks mainly arise from the Bank’s trading activities, primarily in the Investment Bank.

Non-traded market risk primarily relates to asset and liability mismatch exposures in the Bank’s banking books. The Bank’s businesses and Treasury have non-traded portfolios that carry market risks, mainly related to changes in interest rates but also to changes in foreign exchange rates.

The Bank uses market risk measurement and management methods capable of calculating comparable exposures across its many activities and employs focused tools that can model specific characteristics of certain instruments or portfolios. The tools are used for internal market risk management, internal market risk reporting and external disclosure purposes. The Bank's principal market risk measures for traded market risk are VaR, scenario analysis, as included in the stress testing framework, position risk, as included in the Bank's economic risk capital, and sensitivity analysis. These measures complement each other in the Bank's market risk assessment and are used to measure traded market risk at the Bank level. In addition, a counterparty market risk function is designed to support the management of counterparty risk, leveraging product-related market risk knowledge to complement the credit risk approach. The Bank's risk management practices are regularly reviewed to ensure they remain appropriate and fit for purpose.

Non-maturing products, such as savings accounts, have no contractual maturity date or direct market-linked interest rate and are risk-managed on a pooled basis using replication portfolios on behalf of the business divisions. Replication portfolios transform non-maturing products into a series of fixed-term products that approximate the re-pricing and volume behavior of the pooled client transactions.

Structural foreign exchange risk is a market risk stemming from the Bank's investments in foreign operations denominated in currencies other than the reporting currency of the Bank, net of hedges, and is subject to fluctuations in exchange rates. The risk is actively monitored by Treasury to ensure that the level of sensitivity of the Bank's CET1 ratio to adverse movements in foreign exchange rates is within parameters set out in the risk appetite framework. Non-structural foreign exchange risk relates to the foreign currency risk from banking book positions other than from the Bank's investment in foreign operations. This risk is managed under the Bank's traded market risk constraints framework.

Funding liquidity risk

Funding liquidity risk is the risk that the Bank, although solvent, either does not have sufficient financial resources to enable it to meet its obligations as they fall due, or can secure such resources only at excessive cost.

The liquidity and funding strategy is approved by the Group CALMC and overseen by the Board. The implementation and execution of the funding and liquidity strategy is managed by Treasury. The global liquidity group centralizes control of liability and collateral management with the aim of optimizing liquidity sourcing, funding costs and the high-quality liquid assets (HQLA) portfolio within Treasury. Treasury ensures adherence to the Bank's funding policy and the global liquidity group is focused on the efficient coordination of the short-term unsecured and secured funding desks. This approach enhances the Bank's ability to manage potential liquidity and funding risks and to promptly adjust its liquidity and funding levels to meet stress situations. The Bank's liquidity and funding profile is regularly reported to the Credit Suisse AG Parent CAL-RMC, the Group CALMC and the Board, who define the Bank's

risk tolerance, including liquidity risk, and set parameters for the balance sheet and funding usage of its businesses. The Board is responsible for defining the Bank's overall risk tolerance in the form of a risk appetite statement.

Non-financial risk

Non-financial risk is the risk of an adverse direct or indirect impact originating from sources outside the financial markets, including but not limited to operational risk, technology risk, cyber risk, compliance risk, regulatory risk, legal risk and conduct risk. Non-financial risk is inherent in most aspects of the Bank's business, including the systems and processes that support its activities. It comprises a large number of disparate risks that can manifest in a variety of ways. Examples include the risk of damage to physical assets, business disruption, failures relating to data integrity and trade processing, cyber attacks, internal or external fraudulent or unauthorized transactions, inappropriate cross-border activities, money laundering, improper handling of confidential information, conflicts of interest, improper gifts and entertainment and failure in duties to clients.

Non-financial risk can arise from a wide variety of internal and external forces, including human error, inappropriate conduct, failures in systems, processes and controls, pandemic, deliberate attack or natural and man-made disasters. Outsourcing and external third parties may also create risks around maintaining business processes, system stability, data loss, data management, reputation and regulatory compliance.

Each business area and function is responsible for its non-financial risks and the provision of adequate resources and procedures for the management of those risks. They are supported by the designated second line of defense functions responsible for independent risk and compliance oversight, methodologies, tools and reporting within their areas as well as working with management on non-financial risk issues that arise. Businesses and relevant control functions meet regularly to discuss risk issues and identify required actions to mitigate risks.

The Non-Financial Risk function oversees the Bank's established non-financial risk framework (NFRF), providing a consistent and unified approach to evaluating and monitoring the Bank's non-financial risks. Non-financial risk appetites are established and monitored under the Bank-wide risk appetite framework, aligned with the NFRF, which sets common minimum standards across the Bank for non-financial risk and control processes and review and challenge activities.

The Bank's activities to manage non-financial risk capital include scenario analysis and operational risk regulatory capital measurement. In addition, the Bank transfers the risk of potential losses from certain non-financial risks to third-party insurance companies in certain instances.

Non-financial risk scenario analysis is a forward-looking tool that is used to identify and measure exposure to a range of potential adverse events, such as unauthorized trading, transaction processing errors and compliance issues. These scenarios help businesses

and functions assess the suitability of controls in light of existing risks and estimate hypothetical but plausible risk exposures. Scenarios are developed to support stressed loss projections and capital calculations in response to requirements set by regulatory agencies in the jurisdictions in which the Bank operates.

The Bank uses internally validated and approved models to calculate its regulatory capital requirements for non-financial risk (also referred to as “operational risk capital”) across the Bank and for major legal entities. For Bank regulatory capital requirements, a model under the advanced measurement approach (AMA) is applied.

Operational risk capital for the Bank parent company is determined using an income-based allocation of Group-level capital. The ratio of the three-year average of gross income (as defined for calculating the basic indicator approach for operational risk capital under the Basel framework) between the Bank parent company and the Group defines an allocation key used to scale the Group AMA value to reported levels for the Bank parent company. In line with the Group, the operational risk capital for the Bank parent company is now reported in US dollars.

Model risk

Model risk is the risk of adverse consequences from decisions made based on model results that may be incorrect, misinterpreted or used inappropriately. All models and qualitative estimation approaches are imperfect approximations and assumptions that are subject to varying degrees of uncertainty in their output depending on, among other factors, the model’s complexity and its intended application. As a result, modeling and estimation errors may result in inappropriate business decisions, financial loss, regulatory and reputational risk and incorrect or inadequate capital reporting. Model errors, intrinsic uncertainty and inappropriate use are the primary contributors to aggregate Bank-wide model risk. This framework is owned by the Model Risk Management function, which is structured as a second line of defense independent from the first line of defense, i.e., the model users, developers and supervisors who own, develop, implement and maintain models.

Through the global model risk management and governance framework the Bank seeks to identify, measure and mitigate significant risks arising from the use of models embedded within the Bank’s global model ecosystem. Model risks can be managed through a well-designed and robust model risk management framework, encompassing model governance policies and procedures, model validation best practices and actionable model risk reporting.

The Model Risk Management function is responsible for overseeing model risk at Credit Suisse and ensuring compliance with model governance policies and standards. The Model Risk Management function reviews models, reports model limitations to key stakeholders, tracks remediation plans for validation findings and reports on model risk tolerances and metrics to senior management. The Model Risk Management function oversees controls to facilitate a complete and accurate Bank-wide model inventory and coordinates semi-annual attestations by the first line of defense with the aim of achieving completeness and accuracy of its model inventory.

Reputational risk

Reputational risk is the risk that negative perception by the Bank’s stakeholders, including clients, counterparties, employees, shareholders, regulators and the general public, may adversely impact client acquisition and damage the Bank’s business relationships with clients and counterparties, affecting staff morale and reducing access to funding sources.

Reputational risk may arise from a variety of sources, including, but not limited to, the nature or purpose of a proposed transaction or service, the identity or activity of a potential client, the regulatory or political climate in which the business will be transacted, significant public attention surrounding the transaction itself or the potential sustainability risks of a transaction. Sustainability risks have potentially adverse impacts on the environment, on people or society, which may be caused by, contributed to or directly linked to financial service providers, usually through the activities of their clients. These may manifest themselves as reputational risks, but potentially also as other risk types such as credit or non-financial risks. Reputational risk may also arise from reputational damage in the aftermath of a non-financial risk incident, such as cyber crime or the failure by employees to meet expected conduct and ethical standards.

Reputational risk is included in the Bank’s risk appetite framework to ensure that risk-taking is aligned with the approved risk appetite. The Bank highly values its reputation and is fully committed to protecting it through a prudent approach to risk-taking and a responsible approach to business. This is achieved through a culture of risk awareness as well as dedicated processes, resources and policies focused on identifying, evaluating, managing and reporting potential reputational risks. This is also achieved by applying the highest standards of personal accountability and ethical conduct as set out in the Group’s Code of Conduct and the Group’s approach to cultural values and behaviors. Reputational risk potentially arising from proposed business transactions, client activity or joining initiatives or affiliations (including joining third party groups, providing support to causes, speaking engagements, charitable donations, political donations directly or through sponsorships) is assessed in the reputational risk review process. The Group’s global policy on reputational risk requires employees to be conservative when assessing potential reputational impact and, where certain indicators give rise to potential reputational risk, the relevant business proposal or service must be submitted through the reputational risk review process.

For transactions with potential sustainability risks, the internal specialist unit Sustainability Risk evaluates the nature of the transaction and Credit Suisse’s role, the identity and activities of the client and the regulatory context of its operations, and assesses the environmental and social aspects of the client’s operations, products or services. The team determines whether the client’s activities are consistent with the relevant industry standards and whether the potential transaction is compatible with Credit Suisse’s policies and guidelines for sensitive sectors. The outcome of this analysis is submitted to the responsible business unit and/or entered into the reputational risk review process.

Climate-related risks

Climate-related risks are the potentially adverse direct and indirect impacts on the Bank's financial metrics, operations or reputation due to transition or physical effects of climate change. Climate-related risks are a core element of sustainability risks.

The Bank publishes its climate-related disclosures following the structure provided by the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). These are included in Credit Suisse's Sustainability Report as well as in the TCFD Report. The disclosures include quantitative metrics alongside explanations of the frameworks relied upon, and Credit Suisse's overall climate strategy.

- Refer to [credit-suisse.com/sustainabilityreport](https://www.credit-suisse.com/sustainabilityreport) for the Group's Sustainability Report 2022 and to [credit-suisse.com/tcfd](https://www.credit-suisse.com/tcfd) for an extract of disclosures in accordance with TCFD.

Business risk

Business risk is the risk of not achieving the financial goals and ambitions in connection with the Bank's strategy and how the business is managed in response to the external operating environment. External factors include both market and economic conditions, as well as shifts in the regulatory environment. Internally, the Bank faces risks arising from inappropriate strategic decisions, ineffective implementation of business strategies or an inability to adapt business strategies in response to changes in the operating environment, including in relation to client and competitor behavior.

The Bank's businesses are also exposed to a variety of risks that could adversely impact its dividend payments or share buyback programs, including risks associated with the illiquid investments of the Bank. These investments are defined as investments held in the banking book usually with a longer-term time horizon and are not subject to the Bank's market risk framework (e.g., VaR measurement). Illiquid investments include private equity, hedge fund and mutual fund seed and co-investments, strategic investments (e.g., joint ventures and minority investments) as well as other investments, such as collateralized loan obligations mandated by regulatory risk retention requirements. Trading assets and banking book loans are not covered under the illiquid investment risk framework.

Strategic and related financial plans are developed by each division annually and aggregated into a Group financial plan, which is reviewed by the CRO, CFO and the Chief Executive Officer (CEO) before presentation to the full Executive Board and the Board. The divisions and legal entities, including the Bank parent company, operate a parallel and integrated planning process. The Group financial plan serves as the basis for the financial goals and ambitions against which the businesses and legal entities, including the Bank parent company, are assessed regularly throughout the year. These regular reviews include evaluations of financial performance, capitalization and capital usage, key business risks, overall operating environment and business strategy. This enables management to identify and execute changes to the Group's operations and strategy where needed.

Fiduciary risk

Fiduciary risk is the risk of financial loss arising when the Bank or its employees, acting in a fiduciary capacity as trustee, investment manager or as mandated by law, do not act in the best interest of the client in connection with the provision of advice and/or management of its client's assets including from a product-related market, credit, liquidity, counterparty and non-financial risk perspective.

With regard to fiduciary risk that relates to discretionary investment-related activities, assessing investment performance and reviewing forward-looking investment risks in client portfolios and investment funds is central to the Bank's investment oversight program. This program targets daily, monthly or quarterly monitoring of all portfolio management activities with independent analysis provided to senior management. Formal review meetings are in place as part of the Bank's efforts to ensure that investment performance and risks are in line with expectations and adequately supervised.

Fiduciary risks from activities other than discretionary investment management, such as the advised portfolios, are managed and monitored in a similar oversight program. This program is actively managed in cooperation with the Bank's compliance function and is based on the suitability framework.

Pension risk

Pension risk is the financial risk from contractual or other liabilities to which the Bank is exposed as a sponsor of and/or participant in pension plans. It is the risk that the Bank may be required to make unexpected payments or other contributions to a pension plan because of a potential obligation (i.e., underfunding).

Sources of risks can be broadly categorized into asset investment risks (e.g., underperformance of bonds, equities and alternative investments) and liability risks, primarily from changes in interest rates, inflation and longevity.

Use of derivative financial instruments and hedge accounting

Business policy for use of derivative financial instruments

Derivatives are generally either privately negotiated over-the-counter (OTC) contracts or standard contracts transacted through regulated exchanges. The Bank parent company's most frequently used freestanding derivative products, entered into for trading and risk management purposes, include interest rate, credit default and cross-currency swaps, interest rate and foreign exchange options, foreign exchange forward contracts and foreign exchange and interest rate futures.

On the date a derivative contract is entered into, the Bank parent company designates it as belonging to one of the following categories: trading activities; a risk management transaction that does not qualify as a hedge under accounting standards (referred to as an economic hedge);

a hedge of the fair value of a recognized asset or liability; or a hedge of the variability of cash flows to be received or paid relating to a recognized asset or liability or a forecasted transaction.

Economic hedges

Economic hedges arise when the Bank parent company enters into derivative contracts for its own risk management purposes, but the economic relationships do not qualify for hedge accounting. These economic hedges include the following types:

- interest rate derivatives to manage net interest rate risk on certain core banking business assets and liabilities;
- foreign exchange derivatives to manage foreign exchange risk on certain core banking business revenue and expense items, core banking business assets and liabilities; as well as selected foreign participations against adverse movements in foreign exchange rates;
- credit derivatives to manage credit risk on certain loan portfolios; and
- futures to manage risk on equity positions including convertible bonds.

Derivatives used in economic hedges are included as trading assets or trading liabilities in the balance sheet.

Hedge accounting

Hedge accounting for the Bank parent company is determined, recorded and disclosed in accordance with US GAAP as allowed under Swiss GAAP statutory accounting rules for banks.

- Refer to “Note 13 – Derivative financial instruments” for further information on hedge accounting.

Fair value hedges

The Bank designates fair value hedges as part of an overall interest rate risk management strategy that incorporates the use of derivative instruments to minimize fluctuations in earnings that are caused by interest rate volatility. The Bank uses derivatives to hedge for changes in fair value as a result of the interest rate risk associated with loans, debt securities held as available-for-sale and long-term debt instruments.

Cash flow hedges

The Bank hedges the variability in interest cash flows mainly on mortgages, loans and reverse repurchase agreements by using interest rate swaps to convert variable rate assets to fixed rates.

Hedge effectiveness assessment

The Bank parent company assesses the effectiveness of hedging relationships both prospectively and retrospectively. The prospective assessment is made both at the inception of a hedging relationship and on an ongoing basis, and requires the Bank parent company to justify its expectation that the relationship will be highly effective over future periods. The retrospective assessment is also performed on an ongoing basis and requires the Bank parent company to determine whether or not the hedging relationship has actually been effective.

4 Net income from interest activities

Net income from interest activities for 2021 included an increase of allowance for default risks of CHF 298 million from the adoption of the CECL accounting guidance on January 1, 2021.

Negative interest income and expense

<u>in</u>	<u>2022</u>	<u>2021</u>
CHF million		
Negative interest income debited to interest income	(224)	(367)
Negative interest expenses credited to interest expense	<u>101</u>	<u>151</u>

Negative interest income is debited to interest income and negative interest expense is credited to interest expense.

5 Net income/(loss) from trading activities and fair value option

in	2022	2021
By risk of underlying instruments (CHF million)		
Interest rate products ¹	(3,219)	(336)
Equity products ¹	(721)	(149)
Foreign exchange	914	905
Precious metals	(73)	5
Commodities ²	8	(3)
Credit products	530	(1,380)
Other products	(2)	22
Net income/(loss) from trading activities and fair value option	<u>(2,563)</u>	<u>(936)</u>
of which net income/(loss) from liabilities valued under the fair value option	<u>5,750</u>	<u>(2,750)</u>

- 1 Includes trading income/(loss) from related fund investments.
2 Includes energy products.

Trading activities at the Bank parent company level are monitored and managed for legal entity-specific treasury, risk management and capital adequacy purposes and are not measured along divisional or individual business lines. The trading activities of the divisions or individual businesses are monitored and managed mainly at the Group level on the basis of US GAAP financial metrics.

6 Personnel expenses

in	2022	2021
CHF million		
Salaries	1,454	1,480
of which variable compensation expenses ¹	123	259
Social benefit expenses	241	267
of which pension and other post-retirement expenses	135	155
Other personnel expenses	161	73
Personnel expenses	<u>1,856</u>	<u>1,820</u>

- 1 Includes current and deferred variable compensation expenses.

7 General and administrative expenses

in	2022	2021
CHF million		
Occupancy expenses	139	137
Information and communication technology expenses	105	89
Furniture and equipment	10	10
Fees to external audit companies	49	45
of which fees for financial and regulatory audits ¹	48	44
of which fees for other services	1	1
Other operating expenses ²	3,889	4,042
General and administrative expenses	<u>4,192</u>	<u>4,323</u>

- 1 Represents total fees for financial statement, regulatory and related audit services paid by legal entity Credit Suisse AG to external audit companies.
2 Partially related to operating expenses charged by affiliated companies for services provided to the Bank parent company.

8 Increase/(release) of provisions and other valuation adjustments, losses and extraordinary income and expenses

Increase/(release) of provisions and other valuation adjustments, and losses

in	2022	2021
CHF million		
Increase/(release) of provisions	283 ¹	114 ²
Other losses	4	6
Increase/(release) of provisions and other valuation adjustments, and losses	<u>287</u>	<u>120</u>

- 1 Primarily related to increases in litigation provisions, partially offset by a net release of provisions for off-balance sheet default risks. In 2022, provisions for off-balance sheet default risks included additional expenses of CHF 37 million related to the prior year. Refer to "Prior period information" in Note 2 – Accounting and valuation principles for further information.
2 Primarily related to increases in litigation provisions, partially offset by a net release of provisions for off-balance sheet default risks. In 2021, provisions for off-balance sheet default risks included an expense of CHF 13 million from the adoption of the CECL accounting guidance on January 1, 2021.

Extraordinary income and expenses

in	2022	2021
CHF million		
Gains realized from the disposal of participations	5	218 ¹
Gains realized from the disposal of tangible fixed assets ²	271	199
Extraordinary income	<u>276</u>	<u>417</u>
Losses realized from the disposal of participations	(62) ³	0
Extraordinary expenses	<u>(62)</u>	<u>0</u>

- 1 Included a gain of CHF 166 million related to the partial sales of Allfunds Group and a gain of CHF 51 million related to the sale of Credit Suisse Life & Pensions AG.
2 Includes realized gains from the sale of real estate (bank premises).
3 Reflects a realized loss from the sale of the residual stake in Allfunds Group.

9 Taxes

in	<u>2022</u>	<u>2021</u>
CHF million		
Current income tax (expense)/benefit	241	(203)
Non-income-based tax (expense)/benefit ¹	(32)	(40)
Taxes	<u><u>209</u></u>	<u><u>(243)</u></u>

¹ Includes capital taxes and other non-income based taxes such as UK bank levy costs.

For the financial years ended December 31, 2022 and 2021, the average tax rate, defined as income tax expense divided by the sum of profit before income tax, was 2% and (2)%, respectively. Income tax expense for the financial years ended December 31, 2022 and 2021 reflected a benefit of CHF 203 million and CHF 82 million, respectively, from the utilization of tax losses carried forward. The calculation is based on statutory tax rates applied to the taxable profit against which tax loss carry forwards were utilized.

10 Assets and liabilities from securities lending and borrowing, repurchase and reverse repurchase agreements

end of	<u>2022</u>	<u>2021</u>
CHF million		
Carrying value of receivables from cash collateral paid for securities borrowed and reverse repurchase agreements – gross	59,439	94,414
Impact from master netting agreements	(7,059)	(7,374)
Carrying value of receivables from cash collateral paid for securities borrowed and reverse repurchase agreements – net	<u><u>52,380</u></u>	<u><u>87,040</u></u>
Carrying value of liabilities from cash collateral received for securities lent and repurchase agreements – gross	59,705	100,529
Impact from master netting agreements	(7,059)	(7,374)
Carrying value of liabilities from cash collateral received for securities lent and repurchase agreements – net	<u><u>52,646</u></u>	<u><u>93,155</u></u>
Carrying value of securities transferred under securities lending and borrowing and repurchase agreements	18,878	23,726
of which transfers with the right to resell or repledge	14,214	14,191
Fair value of securities received under securities lending and borrowing and reverse repurchase agreements with the right to resell or repledge	108,093	209,775
of which repledged	72,198	164,013
of which resold	2,977	1,991

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Collateralization of loans and receivables

end of	Secured ¹			Unsecured	Total
	Mortgages	Other collateral ²	Total		
2022 (CHF million)					
Due from customers	220	81,366	81,586	37,991	119,577
Residential property	3,508	0	3,508	13	3,521
Offices and commercial property	1,275	0	1,275	0	1,275
Manufacturing and industrial property	210	0	210	0	210
Other	45	0	45	0	45
Mortgage loans	5,038	0	5,038	13	5,051
Gross amount	5,258	81,366	86,624	38,004	124,628
Allowance for credit losses	(6)	(648)	(654)	(1,398)	(2,052)
Net amount	5,252	80,718	85,970	36,606	122,576
of which due from customers	219	80,718	80,937	36,606	117,543
of which mortgage loans	5,033	0	5,033	0	5,033
2021 (CHF million)					
Due from customers	645	87,188 ³	87,833	67,707 ³	155,540
Residential property	3,677	0	3,677	13	3,690
Offices and commercial property	1,182	0	1,182	0	1,182
Manufacturing and industrial property	151	0	151	0	151
Other	41	0	41	0	41
Mortgage loans	5,051	0	5,051	13	5,064
Gross amount	5,696	87,188	92,884	67,720	160,604
Allowance for credit losses	(28)	(604) ³	(632)	(1,073) ³	(1,705)
Net amount	5,668	86,584	92,252	66,647	158,899
of which due from customers	643	86,584 ³	87,227	66,647 ³	153,874
of which mortgage loans	5,025	0	5,025	0	5,025

- 1 Includes the market value of collateral up to the amount of the outstanding related loans and receivables. For mortgage loans, the market value of collateral is determined at the time of granting the loan and thereafter regularly reviewed according to the Bank parent company's risk management policies and directives, with maximum review periods determined by property type, market liquidity and market transparency. For impaired mortgage loans, the market value of collateral is determined annually or more frequently by credit risk management within the impairment review process.
- 2 Other collateral includes various types of eligible collateral, e.g., securities, cash deposits, financial receivables related to factoring, certain real assets such as ownership titles in ship and aircraft, inventories and commodities, as well as certain non-tangible securities such as licensing agreements or guarantees.
- 3 Prior period has been revised. Refer to "Prior period information" in Note 2 – Accounting and valuation principles for further information.

Collateralization of off-balance sheet transactions

end of	Secured ¹			Unsecured	Total
	Mortgages	Other collateral	Total		
2022 (CHF million)					
Contingent liabilities	13	5,699	5,712	7,088 ²	12,800
Irrevocable commitments	718	44,406	45,124	38,459	83,583
Obligations for calls on shares and additional payments	0	2	2	0	2
Off-balance sheet transactions	731	50,107	50,838	45,547	96,385
2021 (CHF million)					
Contingent liabilities	10	3,454	3,464	10,854 ²	14,318
Irrevocable commitments	576	49,782	50,358	41,570	91,928
Obligations for calls on shares and additional payments	0	8	8	1	9
Off-balance sheet transactions	586	53,244	53,830	52,425	106,255

- 1 Includes the market value of collateral up to the notional amount of the related off-balance sheet transaction. For mortgage-backed off-balance sheet exposures, the market value of collateral is determined at the time of granting the credit facility and thereafter regularly reviewed according to the Bank parent company's risk management policies and directives, with maximum review periods determined by property type, market liquidity and market transparency. For impaired exposures, the market value of collateral is determined annually or more frequently by credit risk management within the impairment review process.
- 2 A majority of contingent liabilities are related to guarantees issued in favor of Group companies.

Impaired loans and receivables

end of	Gross amount outstanding	Estimated realizable collateral value ¹	Net amount outstanding	Specific allowance
2022 (CHF million)				
Impaired loans and receivables	3,709	2,213	1,496	1,661
2021 (CHF million)				
Impaired loans and receivables	2,984	1,697	1,287	1,299

1 Represents the estimated realizable collateral value up to the related gross amount outstanding.

Changes in impaired loans and receivables

	2022			2021		
	Due from customers	Mortgage loans	Total	Due from customers	Mortgage loans	Total
CHF million						
Balance at beginning of period	2,745	239	2,984	2,934	228	3,162
Change in organization ¹	—	—	—	(6)	0	(6)
New impaired balances	1,649	35	1,684	566	64	630
Increase of existing impaired balances	256	17	273	229	1	230
Reclassifications to non-impaired status	(171)	(16)	(187)	(142)	(1)	(143)
Repayments	(642)	(50)	(692)	(472)	(49)	(521)
Liquidation of collateral, insurance and guarantee payments	0	(4)	(4)	(27)	(2)	(29)
Write-offs	(195)	(5)	(200)	(285)	(1)	(286)
Sales	(67)	0	(67)	(102)	0	(102)
Foreign exchange translation impact	(68)	(14)	(82)	50	(1)	49
Balance at end of period	3,507	202	3,709	2,745	239	2,984

Changes in impaired loan and receivable classification during the year are reflected on a gross basis.

1 Includes impacts such as from mergers, spin-offs and other organizational changes.

- Refer to “Note 20 – Provisions and allowance for credit losses” and “Note 21 – Expected credit losses and credit quality” for further information.

12 Trading assets and liabilities and other financial instruments held at fair value

Trading assets

end of	2022	2021
CHF million		
Debt securities, money market instruments and money market transactions	23,010	36,077
of which exchange-traded	1,518	1,859
Equity securities	2,682	2,966
Precious metals and commodities	380	367
Trading assets	26,072	39,410
of which carrying value determined based on a valuation model	16,955	28,382
of which securities eligible for repurchase transactions in accordance with liquidity regulations	272	152

Trading liabilities and liabilities from other financial instruments held at fair value

end of	2022	2021
CHF million		
Debt securities, money market instruments and money market transactions	2,436	2,407
of which exchange-traded	297	206
Equity securities	421	2,379
Trading liabilities	2,857	4,786
Structured products	43,725	50,262
Liabilities from other financial instruments held at fair value	43,725	50,262
Trading liabilities and liabilities from other financial instruments held at fair value	46,582	55,048
of which carrying value determined based on a valuation model	44,067	50,859

13 Derivative financial instruments

end of 2022	Trading			Hedging ¹		
	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)
CHF million						
Forwards and forward rate agreements	301,014	1,569	1,459	0	0	0
Swaps	1,369,881	20,716	19,361	96,563	102	1,676
Options bought and sold (OTC)	266,250	2,012	1,805	0	0	0
Futures	12,976	0	0	0	0	0
Options bought and sold (exchange-traded)	0	0	0	0	0	0
Interest rate products	1,950,121	24,297	22,625	96,563	102	1,676
Forwards and forward rate agreements	788,702	10,050	10,687	0	0	0
Swaps	97,117	2,581	3,043	0	0	0
Options bought and sold (OTC)	152,289	1,637	1,544	0	0	0
Foreign exchange products	1,038,108	14,268	15,274	0	0	0
Forwards and forward rate agreements	9,158	148	94	0	0	0
Swaps	1,464	16	9	0	0	0
Options bought and sold (OTC)	9,125	143	124	0	0	0
Futures	38	0	0	0	0	0
Options bought and sold (exchange-traded)	324	0	0	0	0	0
Precious metal products	20,109	307	227	0	0	0
Forwards and forward rate agreements	11	1	0	0	0	0
Swaps	31,102	1,077	3,694	0	0	0
Options bought and sold (OTC)	32,670	1,556	990	0	0	0
Futures	251	0	0	0	0	0
Options bought and sold (exchange-traded)	9,439	842	235	0	0	0
Equity/index-related products	73,473	3,476	4,919	0	0	0
Credit default swaps	44,938	417	531	0	0	0
Total return swaps	7,048	1,216	626	0	0	0
Other credit derivatives	1,736	22	24	0	0	0
Credit derivatives	53,722	1,655	1,181	0	0	0
Swaps	6,191	834	118	0	0	0
Options bought and sold (OTC)	0	0	0	0	0	0
Other derivative products	6,191	834	118	0	0	0
Derivative financial instruments ²	3,141,724	44,837	44,344	96,563	102	1,676
of which replacement value determined based on a valuation model	—	42,642	42,772	—	102	1,676

1 Relates to derivative financial instruments that qualify for hedge accounting.

2 Before impact of master netting agreements.

Derivative financial instruments (continued)

end of 2021	Trading			Hedging ¹		
	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)	Notional amount	Positive replacement value (PRV)	Negative replacement value (NRV)
CHF million						
Forwards and forward rate agreements	704,320	684	657	0	0	0
Swaps	1,856,129	11,833	10,291	109,098	448	240
Options bought and sold (OTC)	311,386	1,211	1,438	0	0	0
Futures	9,983	0	0	0	0	0
Options bought and sold (exchange-traded)	17,437	1	0	0	0	0
Interest rate products	2,899,255	13,729	12,386	109,098	448	240
Forwards and forward rate agreements	1,085,569	7,662	7,831	0	0	0
Swaps	99,330	1,878	2,195	0	0	0
Options bought and sold (OTC)	214,558 ²	1,736 ²	1,545 ²	0	0	0
Foreign exchange products	1,399,457	11,276	11,571	0	0	0
Forwards and forward rate agreements	11,924	161	97	0	0	0
Swaps	1,669	23	10	0	0	0
Options bought and sold (OTC)	11,442 ²	238	77	0	0	0
Futures	372	0	0	0	0	0
Options bought and sold (exchange-traded)	7,944	29	38	0	0	0
Precious metal products	33,351	451	222	0	0	0
Forwards and forward rate agreements	9	0	3	0	0	0
Swaps	87,672	2,622	2,685	0	0	0
Options bought and sold (OTC)	32,087	1,914	1,477	0	0	0
Futures	754	0	0	0	0	0
Options bought and sold (exchange-traded)	12,707	378	275	0	0	0
Equity/index-related products	133,229	4,914	4,440	0	0	0
Credit default swaps	43,225	420	669	0	0	0
Total return swaps	8,877	195	775	0	0	0
Other credit derivatives	470	67	0	0	0	0
Credit derivatives	52,572	682	1,444	0	0	0
Swaps	6,403	927	118	0	0	0
Options bought and sold (OTC)	208	10	10	0	0	0
Other derivative products	6,611	937	128	0	0	0
Derivative financial instruments ³	4,524,475	31,989	30,191	109,098	448	240
of which replacement value determined based on a valuation model	—	30,931 ²	29,166 ²	—	448	240

¹ Relates to derivative financial instruments that qualify for hedge accounting.

² Prior period has been revised. Refer to “Prior period information” in Note 2 – Accounting and valuation principles for further information.

³ Before impact of master netting agreements.

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Positive and negative replacement values before and after consideration of master netting agreements

end of	2022	2021
Before consideration of master netting agreements (CHF million)		
Positive replacement values – trading and hedging	44,939	32,437 ¹
Negative replacement values – trading and hedging	46,020	30,431 ¹
After consideration of master netting agreements		
Positive replacement values – trading and hedging ²	7,390	6,432
Negative replacement values – trading and hedging ²	4,994	5,065

- 1 Prior period has been revised. Refer to “Prior period information” in Note 2 – Accounting and valuation principles for further information.
- 2 Netting includes counterparty exposure and cash collateral netting.

Net positive replacement values by counterparty type

end of	2022	2021
CHF million		
Central counterparties	371	799
Banks and securities dealers	5,269	4,325
Other counterparties ¹	1,750	1,308
Net positive replacement values	7,390	6,432

- 1 Primarily related to bilateral OTC derivative contracts with clients.

Gains/(losses) on fair value hedges

in	2022		2021	
	Interest and discount income	Interest expense	Interest and discount income	Interest expense
Interest rate products (CHF million)				
Hedged items	(41)	6,628	(19)	1,915
Derivatives designated as hedging instruments	40	(6,253)	18	(1,833)

Gains/(losses) on interest rate risk hedges, both from the hedged items and the derivatives designated as hedging instruments, are included in interest and discount income and interest expense for 2022 and 2021. The accrued interest on fair value hedges is recorded in interest and discount income and interest expense, respectively, and is excluded from this table.

Hedged items in fair value hedges

end of	2022			2021		
	Carrying value	Hedged items Hedging adjustments ¹	Discontinued hedges ²	Carrying value	Hedged items Hedging adjustments ¹	Discontinued hedges ²
Assets (CHF million)						
Due from customers	35	0	0	111	1	0
Mortgage loans	0	0	3	0	0	4
Financial investments	934	(131)	0	857	(18)	0
Liabilities (CHF million)						
Bonds and mortgage-backed bonds	70,816	(913)	(4,434)	64,514	(52)	677

- 1 Relates to the cumulative amount of fair value hedging adjustments included in the compensation account within other assets or other liabilities.
- 2 Relates to the cumulative amount of fair value hedging adjustments remaining for any hedged items for which hedge accounting has been discontinued which is included in the compensation account within other assets or other liabilities.

Cash flow hedges

<u>in</u>	<u>2022</u>	<u>2021</u>
Deferred gains and losses on derivative financial instruments related to cash flow hedges		
(CHF million) ¹		
Deferred gains/(losses) at beginning of period	(88)	213
Interest rate products		
Gains/(losses) on derivatives deferred in the compensation account	(395)	(288)
Interest and discount income	(966)	(13)
(Gains)/losses reclassified from the compensation account into income or expense	(966)	(13)
Deferred gains/(losses) at end of period	(1,449)	(88)

¹ Included in the compensation account within other assets or other liabilities.

As of December 31, 2022, the net loss associated with cash flow hedges expected to be reclassified from other assets and other liabilities to the statement of income within the next 12 months was CHF 486 million.

future cash flows for forecasted transactions, excluding those forecasted transactions related to the payment of variable interest on existing financial instruments.

As of December 31, 2022, the Bank parent company had no cash flow hedges that hedged any exposure to the variability in

- Refer to “Use of derivative financial instruments and hedge accounting” in Note 3 – Risk management, derivatives and hedging activities for further information.

14 Financial investments

<u>end of</u>	<u>2022</u>		<u>2021</u>	
	Carrying value	Fair value	Carrying value	Fair value
CHF million				
Debt securities	26,870	24,361	25,538	25,683
of which held-to-maturity	24,030	21,521	24,466	24,611
of which available-for-sale	2,840	2,840	1,072	1,072
Equity securities	1,526	1,526	1,677	1,677
of which qualified participations ¹	7	7	7	7
Real estate ²	0	0	4	4
Financial investments	28,396	25,887	27,219	27,364
of which securities eligible for repurchase transactions in accordance with liquidity regulations	0	—	0	—

¹ Includes participations held in financial investments with at least 10% in capital or voting rights.

² Real estate acquired from the lending business (repossessed assets) and classified as held-for-sale is carried at lower of cost and liquidation value.

Debt securities by counterparty rating

<u>end of</u>	<u>2022</u>	<u>2021</u>
CHF million		
AAA to AA-	2,971	227
A+ to A-	23,076	24,124
BBB+ to BBB-	106	8
BB+ to B-	27	0
No rating	690	1,179
Debt securities	26,870	25,538

Ratings are based on external data from Standard & Poor's.

15 Other assets and other liabilities

end of	2022	2021
CHF million		
Compensation account ¹	4,822	696
Indirect taxes and duties	452	667
Coupons	5	0
Other ²	245	345
Other assets	5,524	1,708
Indirect taxes and duties	45	22
Accounts payable for goods and services purchased	20	34
Settlement accounts	125	292
Other ³	335	304
Other liabilities	525	652

- 1 Includes changes in the book value of assets and liabilities that are not recognized in the statement of income, such as impacts from hedge accounting, impacts from changes in own credit spreads and deferred gains or losses from the sale of debt securities held-to-maturity.
- 2 Includes receivables from settlement accounts, security deposits and guarantee funds, coupons, internal clearing accounts and other miscellaneous assets.
- 3 Includes payables from internal clearing accounts, accounts payable for goods and services purchased and other miscellaneous liabilities.

17 Pension plans

As of December 31, 2022 and 2021, the Bank parent company did not have any liabilities due to own pension plans.

- Refer to “Note 31 – Pension and other post-retirement benefits” in VIII – Consolidated financial statements – Credit Suisse (Bank) for further information.

Swiss pension plans

The Bank parent company’s employees are covered by the pension plan of the “Pensionskasse der Credit Suisse Group (Schweiz)” and “Pensionskasse 2 der Credit Suisse Group (Schweiz)” (the Swiss pension plans). Most of the Group’s Swiss subsidiaries and a few companies that have close business and financial ties with the Group participate in both plans. The Swiss pension plans are independent self-insured pension plans set up as trusts and qualify as defined contribution plans (savings plans) under Swiss law.

Employer contribution reserves

end of / in	Employer contribution reserves – notional		Amount subject to waiver		Employer contribution reserves – net ¹		Increase/(Release) of employer contribution reserves included in personnel expenses	
	2022	2021	2022	2021	2022	2021	2022	2021
CHF million								
Swiss pension plans	27	25	0	0	27	25	0	0
Total	27	25	0	0	27	25	0	0

- 1 In line with Swiss GAAP statutory accounting guidance, contributions to the employer contribution reserves are not recorded in the Bank parent company’s statutory balance sheet.

16 Assets pledged

end of	2022		2021	
	Carrying value	Actual liabilities	Carrying value	Actual liabilities
CHF million ¹				
Due from banks	0	0	32	32
Due from customers	103	103	0	0
Trading assets	965	883	1,276	706
Assets pledged	1,068	986	1,308	738

- 1 Excludes assets pledged in connection with securities lending and borrowing, repurchase agreements and reverse repurchase agreements.

The Swiss pension plans’ annual financial statements are prepared in accordance with Swiss GAAP FER 26 based on the full population of covered employees. Individual annual financial statements for each participating company are not prepared. As multi-employer plans with unrestricted joint liability for all participating companies, the economic interest in the Swiss pension plans’ over- or underfunding is allocated to each participating company based on allocation keys determined by the plans.

International pension plans

The Bank parent company’s international employees are covered by mandatory and supplementary pension plans in various locations. These are defined benefit and defined contribution plans, which cover benefits such as disability, old age and death, termination and sickness.

Pension plan economic benefit/(obligation), pension contributions and pension expenses

end of / in	Over/(Under) -funding		Economic benefit/ (obligation) recorded by Bank parent company			Pension contributions		Pension expenses included in personnel expenses	
	2022	2021	2022	2021	Change	2022	2021	2022	2021
CHF million									
Swiss pension plan – status overfunded	834 ¹	858 ¹	— ²	— ²	—	92	107	90	103
Swiss pension plan – without over-/underfunding	—	—	—	—	—	42	50	37	46
International pension plans – overfunded	22	—	— ²	—	—	2	0	2	0
International pension plans – underfunded	(5)	(20)	(5)	(20)	15	0	2	(15)	(15)
International pension plans – without over-/underfunding	—	—	—	—	—	21	21	21	21
Total	851	838	(5)	(20)	15	157	180	135	155

- 1 Represented the Bank parent company's share of 34.75% and 34.59% in the reserve for the fluctuation in asset value of the Swiss pension plan of CHF 2,400 million and CHF 2,480 million as of December 31, 2022 and 2021, respectively.
- 2 In line with Swiss GAAP statutory accounting guidance, the Bank parent company's economic benefit from its share in the overfunding of pension plans is not recorded in the Bank parent company's statutory balance sheet.

18 Issued structured products

end of	2022						2021		
	Not bifurcated ¹ Liabilities from other financial instruments held at fair value ²	Bifurcated		Total	Not bifurcated ¹ Liabilities from other financial instruments held at fair value ²	Bifurcated		Total	
		Value of underlying instrument	Value of derivative ¹			Value of underlying instrument	Value of derivative ¹		
Carrying value of issued structured products by underlying risk of the embedded derivative (CHF million)									
Interest rates									
Structured products with own debt	16,728	0	0	16,728	14,624	0	0	14,624	
Structured products without own debt	373	0	0	373	491	0	0	491	
Equity									
Structured products with own debt	22,797	0	0	22,797	31,655	0	0	31,655	
Foreign exchange									
Structured products with own debt	615	0	0	615	628	0	0	628	
Structured products without own debt	0	226	(1)	225	0	731	(1)	730	
Commodities / precious metals									
Structured products with own debt	358	0	0	358	582	0	0	582	
Structured products without own debt	0	58	(1)	57	0	168	(2)	166	
Credit									
Structured products with own debt	2,841	55	(45)	2,851	2,267	91	(33)	2,325	
Other³									
Structured products with own debt	13	0	0	13	15	0	0	15	
Total	43,725	339	(47)	44,017	50,262	990	(36)	51,216	

- 1 Carried at fair value.
- 2 Reflects balance sheet classification.
- 3 Includes structured products where the underlying risk relates to hedge funds or other products with multiple underlying risks.

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19 Unsecured senior debt and structured notes

end of	2022			2021		
	Original maturity up to 1 year	Original maturity greater than 1 year	Total	Original maturity up to 1 year	Original maturity greater than 1 year	Total
CHF million						
Unsecured senior debt ^{1, 2}	1,142	30,589	31,731	2,218	33,158	35,376
of which recorded in bonds and mortgage-backed bonds			31,731			35,376
Unsecured structured notes ³	4,767	38,676	43,443	8,682	41,288	49,970
of which recorded in liabilities from other financial instruments held at fair value			43,354			49,772
of which recorded in bonds and mortgage-backed bonds			89			198

1 Includes guaranteed debt and payables related to fully funded swaps.

2 Excludes senior unsecured debt included in due to banks and customer deposits as well as certificates of deposits and bankers acceptances.

3 For structured notes that include a put option, maturity is determined based on the first date at which a noteholder can request repayment. Structured notes with market triggering features are always reflected in accordance with original maturity.

20 Provisions and allowance for credit losses

Provisions

	Balance at beginning of period	Utilized for purpose	Reclassifications	Foreign exchange translation differences	Recoveries, interest past due	New charges to income statement	Releases to income statement	Balance at end of period
2022 (CHF million)								
Provisions for pension benefit obligations	20	0	—	0	—	0	(15)	5 ¹
Provisions for off-balance sheet default risks	199	0	(4)	30	0	26	(66)	185 ²
of which provisions for probable obligations (Art. 28 par. 1 FINMA-AO)	23	0	(4)	24	0	26	(22)	47
of which provisions for expected credit losses	176	0	0	6	0	0	(44) ³	138
Provisions for other business risks	23	0	0	0	0	1	(1)	23 ⁴
Restructuring provisions	0	(71)	0	0	0	102	0	31 ⁴
Other provisions	302	(311)	3	0	3	492	(170)	319 ⁵
Provisions	544	(382)	(1)	30	3	621	(252)	563

1 Discounted at rates between 2.30% and 8.30%.

2 Provisions are mainly related to irrevocable loan commitments and guarantees. Partially discounted at rates between 1.00% and 15.00%.

3 Changes in provisions for off-balance sheet default risks on non-impaired financial instruments are reflected as a net charge or a net release. The net release included additional expenses of CHF 37 million related to prior year. Refer to "Prior period information" in Note 2 – Accounting and valuation principles for further information.

4 Provisions are not discounted due to their short-term nature.

5 Included litigation provisions of CHF 298 million and CHF 284 million as of December 31, 2022 and 2021, respectively. Partially discounted at rates between 1.80% and 7.93%.

Allowance for credit losses

	Balance at beginning of period	Utilized for purpose ¹	Reclassifications	Foreign exchange translation differences	Recoveries, interest past due ²	New charges to income statement ³	Releases to income statement ³	Balance at end of period
2022 (CHF million)								
Due from banks	32	0	0	0	0	0	(31)	1
Due from customers	1,666	(193)	4	(12)	146	638	(215)	2,034

Mortgage loans	39	(12)	0	0	3	0	(12)	18
Accrued income and prepaid expenses	3	0	0	1	0	2	(1)	5
Allowance for credit losses	1,740	(205)	4	(11)	149	640	(259)	2,058
of which allowance for credit losses from impaired receivables	1,302	(205)	4	(9)	149	639	(217)	1,663
of which allowance for expected credit losses	438	0	0	(2)	0	1	(42)	395

- 1 Reflects write-offs.
- 2 Includes increases and releases of allowances for interest on non-accrual loans and receivables.
- 3 Changes in allowance for expected credit losses on non-impaired financial assets are recorded as a net charge or a net release per balance sheet position.

Write-offs

In the Bank parent company's recovery management function covering the Investment Bank and parts of Wealth Management, once the credit provision is greater than 90% of the loan's notional amount, a position may be written down to its net carrying value in the subsequent quarter if all recovery options are exhausted. In the Bank parent company's recovery management functions for the remaining parts of Wealth Management, write-offs are made based on an individual counterparty assessment. An evaluation is performed on the need for write-offs on impaired loans individually and on an ongoing basis, if it is likely that parts of a loan or the entire loan will not be recoverable. Write-offs of residual loan balances are executed once available debt enforcement procedures are exhausted or, in certain cases, upon a restructuring.

Gross write-offs on loans included in the allowance for credit losses year-on-year movements are reflected in the column "Utilized for purpose". Gross write-offs of CHF 205 million in 2022 compared to gross write-offs of CHF 315 million in 2021. In 2022, gross write-offs were mainly related to the sale of coal mining facilities and to individual positions in the consulting services sector, European mortgages and ship finance. In 2021, gross write-offs mainly resulted from the sale of corporate & institutional loans related to a conglomerate in the Asia Pacific region and a real estate company. Write-offs also included positions in ship finance and corporate lending.

Uncollectible accrued interest receivables are written off by reversing net interest income from interest activities.

21 Expected credit losses and credit quality

This disclosure provides an overview of the Bank parent company's balance sheet positions that include financial assets subject to the CECL accounting guidance. It includes the following main subjects:

- A tabular overview of financial assets subject to the expected credit loss approach and related purchases and sales with counterparties that are not part of Credit Suisse Group;
- A description of the main classes of financial assets subject to the expected credit loss approach, including the main risk characteristics (including the methodology for estimating expected credit losses on non-impaired and impaired financial assets and current-period estimates);
- A description of the methodology for estimating expected credit losses, including disclosures relevant for the Bank

parent company's current-period estimate of expected credit losses;

- Credit quality information (including monitoring of credit quality and internal ratings); and
- Past due financial assets.

As of December 31, 2022, the Bank parent company had no purchased financial assets with more than insignificant credit deterioration since origination.

Financial receivables and debt securities held with entities under common control are not subject to the CECL accounting guidance and related disclosures.

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Financial assets subject to the expected credit loss approach

end of	2022			2021		
	Gross amount ¹	Allowance for credit losses ²	Net carrying value	Amortized cost basis ¹	Allowance for credit losses ²	Net carrying value
CHF million						
Cash and other liquid assets	38,566	0	38,566	89,636	0	89,636
Due from banks	4,270 ³	(1)	4,269	5,867 ⁴	(32)	5,835
Securities borrowing and reverse repurchase agreements	35,824 ³	0	35,824	69,242 ⁴	0	69,242
Due from customers	95,121 ³	(2,034)	93,087	105,467 ⁴	(1,666)	103,801
Mortgage loans	5,051 ³	(18)	5,033	5,064 ⁴	(39)	5,025
Financial investments ⁵	921	0	921	305	0	305
Accrued income and prepaid expenses	845	(5)	840	754	(3)	751
Other assets ⁶	3,732	0	3,732	1,213	0	1,213
Total	184,330	(2,058)	182,272	277,548	(1,740)	275,808

- 1 Excludes balances with entities under common control which are not subject to the CECL accounting guidance and related disclosures. Reflects the nominal value except where indicated.
- 2 Includes allowances for credit losses on impaired receivables (specific allowances for credit losses) and allowances for expected credit losses (non-specific allowances for credit losses).
- 3 Excluded accrued interest before allowance for credit losses in the total amount of CHF 399 million and a related allowance for credit losses of CHF 1 million. These accrued interest balances are reported in the balance sheet in accrued income and prepaid expenses in accordance with Swiss GAAP statutory guidance.
- 4 Excluded accrued interest before allowance for credit losses in the total amount of CHF 254 million and a related allowance for credit losses of CHF 1 million. These accrued interest balances are reported in the balance sheet in accrued income and prepaid expenses in accordance with Swiss GAAP statutory guidance.
- 5 Includes only debt securities held-to-maturity. The gross amount reflects the amortized cost base.
- 6 The gross amount reflects the nominal value or cost base.

In 2022 and 2021, the following purchases and sales of financial assets subject to the CECL accounting guidance were carried out by the Bank parent company and affected the asset base subject to the estimate of the allowances for expected credit losses.

Purchases and sales

in	2022		2021	
	Purchases	Sales ¹	Purchases	Sales ¹
CHF million				
Due from customers	0	2,391	282 ²	4,591
Mortgage loans	0	7	0	180
Financial investments ³	971	0	0	0

- 1 Excludes the sub-participation of loans in syndication-like financings where the Bank parent company is the originator of the loan.
- 2 Includes drawdowns under purchased loan commitments.
- 3 Includes only debt securities held-to-maturity.

institutions. The main risk characteristics of each of these sub-categories and the line items of the Bank parent company's balance sheet, which include these portfolios, are described below:

- Mortgages includes lending instruments secured by residential real estate; such credit exposure is sensitive to the level of interest rates and unemployment as well as real estate valuation. Mortgages are reported in mortgage loans, except for building loans, which are reported in due from customers.
- Loans collateralized by securities primarily includes lending secured by marketable financial collateral (e.g., equities, bonds, investment funds and precious metals); such credit exposure is sensitive to market prices for securities which impact the value of financial collateral. All loans collateralized by securities are reported in due from customers.
- Consumer finance includes lending to private individuals such as personal loans; such credit exposure is sensitive to MEFs, including economic growth, unemployment and interest rates. All consumer finance loans are reported in due from customers.

Main classes of financial assets subject to expected credit loss measurement and risk characteristics

Loans

The Bank parent company's loan portfolios, the main class of financial assets subject to the CECL accounting guidance, are reflected in the balance sheet in due from customers, due from banks and mortgage loans. For the US GAAP CECL accounting guidance applied by the Group and its subsidiaries, loans, which include sales-type and direct financing leases, are classified into two broad categories, consumer loans and corporate & institutional loans. Consumer loans include mortgages, loans collateralized by securities and consumer finance. Corporate & institutional loans include real estate loans, commercial and industrial loans, loans to financial institutions and loans to governments and public

- Real estate includes lending backed by commercial or income-producing real estate; such credit exposure is sensitive to MEFs, including economic growth, unemployment, interest rates and industrial production as well as real estate valuation. A majority of real estate loans are reported in due from customers, with the remaining balance in mortgage loans.
- Commercial and industrial loans includes lending to corporate clients including small and medium-sized enterprises, large corporates and multinational clients; such credit exposure is sensitive to MEFs, including economic growth, unemployment and industrial production. Most of the commercial and industrial loans are reported in due from customers, with the remaining balance in mortgage loans.
- Financial institutions includes lending to financial institutions such as banks and insurance companies; such credit exposure

is sensitive to MEFs, including economic growth. Most of the loans to financial institutions are reported in due from customers, with the remaining balances in due from banks and mortgage loans.

- Governments and public institutions includes lending to central government and state-owned enterprises; such credit exposure is sensitive to MEFs, including economic growth. All loans to governments and public institutions are reported in due from customers.

As of December 31, 2022, loans collateralized by securities, commercial and industrial loans and loans to financial institutions were the largest sub-categories within the loan portfolio of the Bank parent company.

Financial investments – debt securities held-to-maturity

In 2022, the Bank parent company purchased US Treasury securities amounting to CHF 971 million. As of December 31, 2022, these US Treasury securities held-to-maturity had a carrying value of CHF 921 million and were rated “AAA” based on the Bank parent company’s internal counterparty rating. US Treasury securities have a history of no credit losses and market price movements mainly reflect changes in market interest rates. Based on this history of no credit losses and the Bank parent company’s view of the current and forecasted economic environment, the Bank parent company expects the risk of non-payment for US Treasuries to be zero and does not have an allowance for credit losses for these securities. The credit quality of these securities is monitored on an ongoing basis and the zero-loss expectation is validated on at least a quarterly basis through the Bank parent company’s governance structure involving the Credit Risk and Treasury functions.

As of December 31, 2021, the Bank parent company held a portfolio of debt securities held-to-maturity that represented positions in a commercial paper with a single issuer with original maturities up to three months which are held as collateral in a secured structured credit-linked loan transaction for a client. These commercial papers met the requirement of a cash equivalent under US GAAP, were highly rated and also qualified as high quality liquid assets. As of December 31, 2021, the carrying value of this portfolio of debt securities held-to-maturity was CHF 305 million, with no related allowance for credit losses.

Other classes of financial assets

Other classes of financial assets subject to the CECL accounting guidance, which are not reported as loans or debt securities held-to-maturity described above, include mainly the following balance sheet positions and related risk characteristics:

- Cash and other liquid assets includes primarily cash balances with central banks; such credit exposure is sensitive to the credit rating and profile of the central bank.
- Due from banks includes balances held with banks. In addition to certain loans to financial institutions described further above, due from banks includes primarily nostro accounts as well as settlement accounts and margin accounts with broker

banks; such credit exposure is sensitive to the credit rating and profile of the counterparty bank.

- Due from customers includes balances held with customers. In addition to the non-mortgage loans described further above, due from customers includes primarily settlement accounts and margin accounts with non-bank brokers; such credit exposure is sensitive to the credit rating and profile of the related counterparty.
- Securities borrowing and reverse repurchase agreements includes lending and borrowing of securities against cash or other financial collateral; such credit exposure is sensitive to the credit rating and profile of the counterparty and relative changes in the valuation of securities and financial collateral.

Estimating expected credit losses

The following key elements and processes of estimating expected credit losses apply to the Bank parent company’s major classes of financial assets that are subject to the CECL accounting guidance.

Expected credit losses on non-impaired credit exposures

Expected credit loss models for non-impaired credit exposures have three main inputs: (i) PD, (ii) LGD and (iii) EAD. These parameters are derived from internally developed statistical models which are based on historical data and leverage regulatory models under the advanced internal ratings-based (A-IRB) approach. Expected credit loss models use forward-looking information to derive point-in-time estimates of forward-looking term structures.

PD estimates are based on statistical rating models and tailored to various categories of counterparties and exposures. These statistical rating models are based on internally and externally compiled data comprising both quantitative and qualitative factors. A migration of a counterparty or exposure between rating classes generally leads to a change in the estimate of the associated PD. Lifetime PDs are estimated considering the expected macroeconomic environment and the contractual maturities of exposures, adjusted for estimated prepayment rates where applicable. Internal credit ratings form a significant input to the model derived CECL PDs. For the majority of counterparties, internal credit ratings are determined via statistical rating models, which are developed under the A-IRB approach of the Basel framework. The models are tailored to the specific business of the respective obligor and are intended to reflect the risk of default over a one-year period of each counterparty. The Bank parent company has received approval from its primary regulator to use, and has fully implemented, the A-IRB approach.

LGD estimates the size of the expected loss that may arise on a credit exposure in the event of a default. The Bank parent company estimates LGD based on the history of recovery rates of claims against defaulted counterparties, considering, as appropriate, factors such as differences in product structure, collateral type, seniority of the claim, counterparty industry and recovery

costs of any collateral that is integral to the financial asset. Certain LGD values are also calibrated to reflect the expected macro-economic environment.

EAD represents the expected amount of credit exposure in the event of a default. It reflects the current drawn exposure with a counterparty and an expectation regarding the future evolution of the credit exposure under the contract or facility, including amortization and prepayments. The EAD of a financial asset is the gross carrying amount at default, which is modeled based on historical data by applying a term structure and considering portfolio-specific factors such as the drawn amount as of the reporting date, the facility limit, amortization schedules, financial collateral and product type. For certain financial assets, the Bank parent company determines EAD by modeling the range of possible exposure outcomes at various points in time using scenario and statistical techniques.

Where a relationship to macroeconomic indicators is statistically sound and in line with economic expectations, the parameters are modeled accordingly, incorporating the Bank parent company's forward-looking forecasts and applying regional segmentations where appropriate.

The ability to forecast credit losses over the reasonable and supportable period is based on the ability to forecast economic activity over a reasonable and supportable time window. The Bank parent company's macroeconomic and market variable forecasts for the CECL scenarios cover a five-year time horizon. For periods beyond that reasonable and supportable forecast period, the Bank parent company immediately reverts to average economic environment variables as model input factors. In the downside and upside scenarios, mean reversion to the base case projected paths will commence in year three, with full convergence occurring in years four and five for certain macroeconomic factors.

Alternative qualitative estimation approaches are used for certain products. For lombard loans (including share-backed loans), the PD/LGD approach used does not consider the Bank parent company's forward-looking forecasts as these are not meaningful for the estimate of expected credit losses in light of the short time-frame considered for closing out positions under daily margining arrangements. For international private residential mortgages and securitizations, the Bank parent company applies qualitative approaches where credit specialists follow a structured process and use their expertise and judgment to determine the amounts of expected credit losses.

The Bank parent company measures expected credit losses considering the risk of default over the maximum contractual period (including any borrower's extension options) during which it is exposed to credit risk, even if the Bank parent company considers a longer period for risk management purposes. The maximum contractual period extends to the date at which the Bank parent company has the right to require repayment of an advance or terminate an irrevocable loan commitment or a credit guarantee.

For off-balance sheet credit exposures, methodology, scenarios and MEFs used to estimate the provision for expected credit losses are the same as those used to estimate the allowance for credit losses for financial assets held at amortized cost. For the EAD models, a credit conversion factor or similar methodology is applied to off-balance sheet credit exposures in order to project the additional drawn amount between current utilization and the committed facility amount.

Expected credit losses on impaired credit exposures

Expected credit losses for individually impaired credit exposures are measured by performing an in-depth review and analysis of these exposures, considering factors such as recovery and exit options as well as collateral and the risk profile of the borrower. The individual measurement of expected credit losses for impaired financial assets also considers reasonable and supportable forward-looking information that is relevant to the individual counterparty (idiosyncratic information) and reflective of the macroeconomic environment that the borrower is exposed to, apart from any historical loss information and current conditions. If there are different scenarios relevant for the individual expected credit loss measurement, they are considered on a probability-weighted basis. The related allowance for credit losses is revalued by the recovery management function, at least annually or more frequently, depending on the risk profile of the borrower or credit-relevant events.

For credit-impaired financial assets, the expected credit loss is measured using (i) the present value of estimated future cash flows discounted at the contractual interest rate of the loan, (ii) the fair market value of collateral where the loan is collateral-dependent, (iii) the market price if a loan is traded and/or a market price can be readily determined for a related instrument or (iv) alternative recovery valuation methods such as multiples and liquidation values of assets. The impaired credit exposures and related allowance are revalued to reflect the passage of time.

For all classes of financial assets, the trigger to detect an impaired credit exposure is non-payment of interest, principal amounts or other contractual payment obligations, or when, for example, the Bank parent company may become aware of specific adverse information relating to a counterparty's ability to meet its contractual obligations, despite the current repayment status of its particular credit facility. For credit exposures where repayment is dependent on collateral, a decrease in collateral values can be an additional trigger to detect an impairment.

Restructured loans are considered impaired credit exposures in line with the bank's policies and subject to individual assessment and provisioning for expected credit losses by the recovery management function.

In addition, loans managed on the Swiss platform are reviewed depending on event-driven developments. All corporate and institutional loans are reviewed at least annually based on the borrower's financial statements and any indications of difficulties they may experience. Loans that are not impaired, but which are of

special concern due to changes in covenants, downgrades, negative financial news and other adverse developments, are either transferred to recovery management or included on a watch list. All loans on the watch list are reviewed at least quarterly to determine whether they should be released, remain on the watch list or be moved to recovery management. For loans in recovery management from the Swiss platform, larger positions are reviewed on a quarterly basis for any event-driven changes. Otherwise, these loans are reviewed at least annually. All loans in recovery management on international platforms are reviewed on at least a monthly basis.

Macroeconomic scenarios

The estimation and application of forward-looking information requires quantitative analysis and significant expert judgment. The Bank parent company's estimation of expected credit losses is based on a discounted probability-weighted estimate that considers three future macroeconomic scenarios: a baseline scenario, an upside scenario and a downside scenario. The baseline scenario represents the most likely outcome. The two other scenarios represent more optimistic and more pessimistic outcomes, with the downside scenario being more severe than the upside scenario. The scenarios are probability-weighted according to the Bank parent company's best estimate of their relative likelihood based on historical frequency, an assessment of the current business and credit cycles as well as the macroeconomic factor trends.

The scenario design team within the Group's Enterprise Risk Management (ERM) function determines the macroeconomic factors (MEFs) and market projections that are relevant for the Bank parent company's three scenarios across the overall credit portfolio subject to the CECL accounting guidance. The scenario design team formulates the baseline scenario projections used for the calculation of expected credit losses from the Group's global chief investment office in-house economic research forecasts and, where deemed appropriate, from external sources such as the Bloomberg consensus of economist forecasts (covering the views of other investment banks and external economic consultancies), forecasts from nonpartisan think tanks, major central banks and multilateral institutions, such as the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD) and the World Bank. For factors where no in-house or credible external forecasts are available, an internal model is used to calibrate the baseline scenario projections. The downside and upside scenarios are derived from these baseline scenario projections. These three scenario projections are subject to a review and challenge process and any feedback from this process is incorporated into the scenario projections by the ERM scenario design team. The CECL scenario design working group is the governance forum. The working group performs an additional review and challenge and subsequently recommends

approval of the MEFs and related market projections as well as the occurrence probability weights that are allocated to the baseline, downside and upside scenarios. MEFs and related market projections as well as the scenario occurrence probability weights used for the calculation of expected credit losses are approved by the Senior Management Approval Committee.

Current-period estimate of expected credit losses on non-impaired credit exposures

One of the most significant judgments involved in estimating the Bank parent company's allowance for credit losses relates to the macroeconomic forecasts used to estimate credit losses over the forecast period, with modeled credit losses being driven primarily by a set of 34 MEFs. The key MEFs used in each of the macro-economic scenarios for the calculation of the expected credit losses include, but are not limited to, GDP and industrial production growth rates. These MEFs are used in the portfolio- and region-specific CECL models and have been selected based on statistical criteria and expert judgment to explain expected credit losses. The table "Selected macroeconomic factors" includes the Bank parent company's forecast of selected MEFs for 2023 and 2024, as estimated as of December 31, 2022. The comparative information includes the forecast of MEFs selected and estimated as of December 31, 2021.

As of December 31, 2022, the forecast macroeconomic scenarios were weighted 50% for the baseline, 40% for the downside and 10% for the upside scenario, unchanged compared to the scenario weightings applicable as of December 31, 2021. The MEFs included in the table represent the four-quarter average forecasts for 2023 and 2024 at the end of each reporting period. These MEFs forecasts are recalibrated on a monthly basis and certain CECL models consume data with a time lag or are influenced by statistical base effects from an earlier period. The quarterly series for China real GDP and world industrial production returned to pre-pandemic levels (i.e., the fourth quarter of 2019) in the second and third quarter of 2020, respectively, while the quarterly series for US real GDP returned to pre-pandemic levels in the first quarter of 2021, based on the latest published statistical data available. The macroeconomic and market variable projections incorporate adjustments to reflect the impact of accelerated monetary policy tightening by the world's major central banks in response to high inflation rates, the impact of Russia's invasion of Ukraine on energy and food prices as well as the macroeconomic impact of the property sector slowdown in China. While GDP and industrial production growth rates as well as unemployment rates are significant inputs to the forecast models, a range of other inputs are also incorporated for all three scenarios to provide projections for future economic and market conditions. Given the complex nature of the forecasting process, no single economic variable is viewed in isolation or independently of other inputs.

Selected macroeconomic factors

	Forecast 2023	Forecast 2024
end of 2022		
US real GDP growth rate (%)		
Downside	(1.7)	0.5
Baseline	0.9	1.5
Upside	1.2	2.0
World industrial production (%)		
Downside	(6.8)	0.4
Baseline	1.2	1.9
Upside	3.9	3.9
China real GDP growth rate (%)		
Downside	(0.9)	2.1
Baseline	4.5	4.9
Upside	6.2	5.8
G10 unemployment rate (%)		
Downside	5.5	5.1
Baseline	4.5	4.8
Upside	4.2	4.7
	Forecast 2022	Forecast 2023
end of 2021		
Swiss real GDP growth rate (%)		
Downside	(0.4)	0.3
Baseline	2.5	1.9
Upside	4.3	2.8
Eurozone real GDP growth rate (%)		
Downside	(0.7)	1.4
Baseline	3.8	2.3
Upside	4.2	2.7
US real GDP growth rate (%)		
Downside	0.1	1.4
Baseline	3.8	1.9
Upside	4.5	2.4
UK real GDP growth rate (%)		
Downside	(0.9)	1.0
Baseline	5.0	3.3
Upside	7.8	3.9
World industrial production (%)		
Downside	0.0	2.0
Baseline	3.0	3.0
Upside	4.4	3.7

Forecasts represent the four-quarter average estimate of the respective macroeconomic factor as determined at the end of each reporting period.

Expected credit losses are not solely derived from MEF projections. Model overlays based on expert judgment are also applied, considering historical loss experience and industry and counter-party reviews, and primarily impacting certain corporate and institutional loans portfolios. Such overlays are designed to address circumstances where in management's judgment the CECL model outputs are overly sensitive to the effect of economic inputs that exhibit significant deviation from their long-term historical averages. Overlays may also be used to capture judgment on the economic uncertainty from global or regional developments with severe impacts on economies. The Bank parent company's non-specific allowance for expected credit losses on balance sheet and off-balance sheet credit exposures as of December 31, 2022 decreased compared to December 31, 2021. Model overlays were recalibrated during the year to take into account updated input elements based on expert judgment which led to a release. Overlays continued to be closely aligned with the macro-economic forecasts and associated scenario weightings.

Interest income attributable to the passage of time

For financial assets held at amortized cost, for which the Bank parent company measures expected credit losses based on the discounted cash flow methodology, the entire change in present value is reported in the statement of income in (increase)/release of allowance for default risks and losses from interest activities.

Credit quality information

The Bank parent company monitors the credit quality of financial assets held at amortized cost with the application of the Group credit risk management framework, which provides for the consistent evaluation, measurement and management of credit risk across the Bank.

Evaluation, measurement and management of credit exposures recorded in the Bank parent company follows the same approach as for the Group and reflects the specific exposure profile of the legal entity. Assessments of credit risk exposures for internal risk estimates and risk-weighted assets are calculated based on PD, LGD and EAD models.

- Refer to “Expected credit losses on non-impaired credit exposures” for further information on PD, LGD and EAD.

The credit risk management framework incorporates the following core elements:

- Counterparty and transaction assessments: application of internal credit ratings (using PD), assignment of LGD and EAD values in relation to counterparties and transactions;
- Credit limits: establishment of credit limits, including limits based on notional exposure, potential future exposure and stress exposure, subject to approval by delegated authority holders, to serve as primary risk controls on exposures and to prevent undue risk concentrations;
- Credit monitoring, impairments and provisions: processes to support the ongoing monitoring and management of credit exposures, supporting the early identification of deterioration and any subsequent impact; and
- Risk mitigation: active management of risk mitigation provided in relation to credit exposures, including through the use of cash sales, participations, collateral or guarantees or hedging instruments.

In addition to traditional credit exposure measurement, monitoring and management using current and potential future exposure metrics, Credit Risk performs counterparty and portfolio credit risk assessments of the impact of various internal stress test scenarios. Credit Risk assesses the impact to credit risk exposures arising from market movements in accordance with the scenario narrative, which can further support the identification of concentration or tail risks. The scenario suite includes historical scenarios as well as forward-looking scenarios which are used across the Risk function.

Credit Risk evaluates and assesses counterparties and clients to whom the Bank parent company has credit exposures, primarily using internal rating models. Credit Risk uses these models to determine internal credit ratings which are intended to reflect the PD of each counterparty.

For a majority of counterparties and clients, internal ratings are based on internally developed statistical models that have been

backtested against internal experience and validated by a function independent of model development. Findings from backtesting serve as a key input for any future rating model developments. The Bank parent company’s internally developed statistical rating models are based on a combination of quantitative factors (e.g., financial fundamentals, such as balance sheet information for corporates and loan-to-value (LTV) ratio and the borrower’s income level for mortgage lending, and market data) and qualitative factors (e.g., credit histories from credit reporting bureaus and economic trends).

For the remaining counterparties where statistical rating models are not used, internal credit ratings are assigned on the basis of a structured expert approach using a variety of inputs, such as peer analyses, industry comparisons, external ratings and research as well as the judgment of senior credit officers.

In addition to counterparty ratings, Credit Risk also assesses the risk profile of individual transactions and assigns transaction ratings which reflect specific contractual terms such as seniority, security and collateral.

Internal credit ratings may differ from external credit ratings, where available, and are subject to periodic review depending on exposure type, client segment, collateral or event-driven developments. The Bank parent company’s internal ratings are mapped to a PD band associated with each rating which is calibrated to historical default experience using internal data and external data sources. The Bank parent company’s internal rating bands are reviewed on an annual basis with reference to extended historical default data and are therefore based on stable long-run averages. Adjustments to PD bands are only made where significant deviations to existing values are detected. The last update was made in 2012 and since then no significant changes to the robust long-run averages have been detected.

The Bank parent company uses internal rating methodologies consistently for the purposes of approval, establishment and monitoring of credit limits and credit portfolio management, credit policy, management reporting, risk-adjusted performance measurement, economic risk capital measurement and allocation and financial accounting.

A credit quality monitoring process is performed to provide for early identification of possible changes in the creditworthiness of clients and includes regular asset and collateral quality reviews, business and financial statement analysis and relevant economic and industry studies. Credit Risk maintains regularly updated watch lists and holds review meetings to re-assess counterparties that could be subject to adverse changes in creditworthiness. The review of the credit quality of clients and counterparties does not depend on the accounting treatment of the asset or commitment.

- Refer to “Expected credit losses on impaired exposures” for further information on credit monitoring.

Past due financial assets

Generally, a financial asset is deemed past due if the principal and/or interest payment has not been received on its due date.

Past due financial assets

end of	Current	Past due				Total	Total
		Up to 30 days	31-60 days	61-90 days	More than 90 days		
2022 (CHF million) ¹							
Due from banks	1,013	0	0	0	0	0	1,013 ²
Due from customers	83,120	296	2	46	1,835	2,179	85,299 ²
Mortgage loans	4,953	0	0	0	98	98	5,051 ²
Financial investments ³	921	0	0	0	0	0	921
Total	90,007	296	2	46	1,933	2,277	92,284
2021 (CHF million) ¹							
Due from banks	1,282	0	0	0	0	0	1,282 ²
Due from customers	99,014	133	210	45	1,664	2,052	101,066 ²
Mortgage loans	4,944	0	27	30	63	120	5,064 ²
Financial investments ³	305	0	0	0	0	0	305
Total	105,545	133	237	75	1,727	2,172	107,717

Excludes balances with entities under common control which are not subject to the CECL accounting guidance and related disclosures. Excludes financing receivables with an original maturity of less than one year which are not subject to disclosure of past due amounts under the CECL accounting guidance.

¹ Reflects gross amounts before allowance for credit losses.

² Excluded accrued interest in the total amount of CHF 395 million and CHF 253 million as of December 31, 2022 and 2021, respectively.

³ Includes only debt securities held-to-maturity.

As of December 31, 2022 and 2021, the Bank parent company did not have any financial assets subject to the CECL

accounting guidance that were more than 90 days past due and still accruing interest.

22 Composition of share capital, conversion and reserve capital

end of	2022		2021	
	Quantity	Total nominal value (CHF million)	Quantity	Total nominal value (CHF million)
Share capital				
Registered shares (at CHF 1 par value per share)	4,399,680,200	4,400 ¹	4,399,680,200	4,400 ¹
Total share capital		4,400		4,400
Conversion and reserve capital				
Unlimited conversion capital (at CHF 1 par value per share) ²	unlimited	unlimited	unlimited	unlimited
Reserve capital (at CHF 1 par value per share) ³	4,399,665,200	4,400	4,399,665,200	4,400
of which used for capital increases	0	0	0	0
of which reserved for planned capital increases	0	0	0	0

¹ The dividend eligible capital equals the total nominal value. As of December 31, 2022 and 2021, the total nominal value of registered shares was CHF 4,399,680,200 and fully paid.

² For information on principal characteristics of unlimited conversion capital, refer to Article 4d in the Articles of Association of the Bank parent company.

³ For information on principal characteristics of reserve capital, refer to Article 4e in the Articles of Association of the Bank parent company.

Non-distributable reserves

As of December 31, 2022 and 2021, the amount of non-distributable reserves in accordance with the Swiss Code of Obligations and the Bank parent company's articles of association was CHF 2,200 million. Not reflected in this amount are reserves

which the Bank parent company is required to retain in order to meet the regulatory capital requirements as a going concern.

Transactions with shareholders

- Refer to "Statement of changes in equity" for further information on transactions with shareholders.

23 Significant shareholders and groups of shareholders

end of	2022			2021		
	Number of shares (million)	Total nominal value (CHF million)	Share-holding (%)	Number of shares (million)	Total nominal value (CHF million)	Share-holding (%)
Direct shareholders						
Credit Suisse Group AG	4,400 ¹	4,400	100.00	4,400 ¹	4,400	100.00
Indirect shareholders through Credit Suisse Group AG²						
Chase Nominees Ltd. ³	477	477	10.83	505	505	11.48
Nortrust Nominees Ltd. ³	239	239	5.43	327	327	7.42
The Bank of New York Mellon ³	234	234	5.31	231	231	5.25

¹ All shares with voting rights.

² Pro-forma numbers calculated based on the percentage interest held in Group shares as per the share register of the Group on December 31 of the reporting period. Includes shareholders registered as nominees.

³ Nominee holdings exceeding 2% are registered with a right to vote only if the nominee confirms that no individual shareholder holds more than 0.5% of the outstanding share capital or if the nominee discloses the identity of any beneficial owner holding more than 0.5% of the outstanding capital.

Information received from shareholders of the Group not registered in the share register

In addition to the shareholdings registered in the share register of the Group, the Group has obtained and reported to the SIX Swiss Exchange information from its shareholders in accordance with the notification requirements of the Swiss Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading. These shareholders may hold their shareholdings in Group shares through a nominee. The following shareholder notifications relate to registered voting rights exceeding 5% of all voting rights, which are subject to disclosure in the notes to the financial statements in accordance with Swiss GAAP statutory. The percentage shareholdings below are presented with two decimal places.

In a disclosure report that the Group published on November 17, 2021, the Group was notified that as of November 12, 2021, Qatar Holding LLC, a wholly-owned subsidiary of Qatar Investment Authority, held 133.2 million shares, or 5.03% of the voting rights, of the registered Group shares issued as of the date of the notified transaction.

In a disclosure report that the Group published on December 10, 2022, the Group was notified that as of December 9, 2022, the Saudi National Bank held 395.5 million shares, or 9.88% of the voting rights, of the registered Group shares issued as of the date of the notified transaction.

In a disclosure report that the Group published on December 8, 2022, the Group was notified that as of November 29, 2022, Harris Associates L.P.'s holdings of registered Group shares had fallen below the 5% reporting threshold.

Shareholders with a qualified participation

As of December 31, 2022, Credit Suisse Group AG as direct shareholder of Credit Suisse AG is the only shareholder with a qualified participation in accordance with Bank Law.

- Refer to "Note 25 – Amounts receivable from and amounts payable to related parties" for further information on shareholders with a qualified participation.

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24 Shareholdings of the Board of Directors, Executive Board and employees and information on compensation plans

- Refer to “V – Compensation” for a comprehensive disclosure of compensation to the Board of Directors and the Executive Board of Credit Suisse Group AG.
- Refer to “Note 25 – Shareholdings” in VII – Parent company financial statements – Credit Suisse Group for information on shareholdings of the Board of Directors and the Executive Board of the Bank parent company.

In 2022 and 2021, the Bank parent company’s total expenses related to deferred compensation plans were CHF 63 million and CHF 129 million, respectively.

For 2022 and 2021, all share-based compensation plans of the Bank parent company were either settled in shares of the Group parent company (Group shares) or in cash on the basis of the fair value of the Group shares.

Share-based awards outstanding

end of	2022		2021	
	Number of share-based awards outstanding in million	Fair value in CHF million	Number of share-based awards outstanding in million	Fair value in CHF million
Share-based awards¹				
Employees	46.3	128	37.8	336
Share-based awards outstanding	46.3	128	37.8	336

- ¹ All share-based compensation plans of the Bank parent company are plans based on virtual shares and either settled in shares of the Group or in cash on the basis of the fair value of the Group shares.

All members of the Board of Directors and the Executive Board of the Bank parent company are also members of the Board of Directors and the Executive Board of the Group parent company. Compensation to members of the Executive Board is determined by the Group parent company on the basis of their overall function and responsibilities in the Group and paid by different legal entities of the Group depending on work location, local contracts, laws and regulations. A presentation of deferred share-based compensation awards to members of the Executive Board recorded by the Bank parent company would not appropriately reflect the Executive Board of the Bank parent company, as it would only consider those members for whom compensation is administrated by the Bank parent company.

As of December 31, 2022 and 2021, the Bank parent company did not have any option plans with outstanding options.

Compensation plans

In 2022, the Bank parent company granted share awards, performance share awards, strategic delivery plan award and Contingent Capital Awards (CCA) as deferred compensation on February 11, 2022.

Deferred compensation is awarded to employees with total compensation greater than or equal to CHF/USD 250,000 or the local currency equivalent. Employees with total compensation below CHF/USD 250,000 or the local currency equivalent received variable incentive compensation in the form of an immediate cash award. Performance share awards were granted to managing directors and material risk takers and controllers, CCA were granted to managing directors and directors.

Share awards

Share awards granted in February 2022 are similar to those granted in February 2021. Each share award granted entitles the holder of the award to receive one Group share, subject to service conditions. Share awards vest over three years with one third of the share awards vesting on each of the three anniversaries of the grant date (ratable vesting), with the exception of awards granted to individuals classified as material risk takers (MRTs), risk manager material risk takers (MRTs) or senior managers or equivalents under the EU or UK Capital Requirements Directive V-related provisions. Share awards granted to MRTs vest over four years with one quarter of the award vesting on each of the four anniversaries of the grant date. Share awards granted to risk manager MRTs vest over five years with one fifth of the award vesting on each of the five anniversaries of the grant date. Share awards granted to senior managers vest over seven years, with one fifth of the award vesting on each of the third to seventh anniversaries of the grant date. Share awards are expensed over the service period of the awards. The value of the share awards is solely dependent on the Group share price at the time of delivery.

The share awards include other awards, such as blocked shares and special awards, which may be granted to new employees. These awards entitle the holder to receive one Group share and are generally subject to continued employment with the Bank parent company, contain restrictive covenants and cancellation provisions and generally vest between zero and five years.

On February 11, 2022, the Bank parent company granted 4.1 million share awards with a total value of CHF 35 million. The number of share awards granted to employees was generally determined by dividing the deferred component of variable compensation being granted as share awards by the average price of a Group share over the ten consecutive trading days ended February 24, 2022. The fair value of each share award was CHF 8.61, the Group share price on the grant date. The majority of share awards granted include the right to receive dividend equivalents on vested shares.

Performance share awards

Certain employees received a portion of their deferred variable compensation in the form of performance share awards. Performance share awards are similar to share awards, except that the full balance of outstanding performance share awards, including

those awarded in prior years, are subject to performance-based malus provisions.

Outstanding performance share awards are subject to a downward adjustment in the event of a divisional loss by the division in which the employees worked as of December 31, 2022, or a negative return on equity (ROE) of the Group, whichever results in a larger adjustment. For employees in corporate functions and the Asset Resolution Unit, the downward adjustment only applies in the event of a negative ROE of the Group and is not linked to the performance of the divisions. The basis for the ROE calculation may vary from year to year, depending on the Compensation Committee's determination for the year in which the performance shares are granted.

A downward adjustment has been applied to outstanding performance share awards, reflecting the negative RoE of the Group and the divisional loss of the Investment Bank for the year 2022.

On February 11, 2022, the Bank parent company granted 2.4 million performance share awards with a total value of CHF 21 million. The number of performance share awards granted to employees was generally determined by dividing the deferred component of variable compensation being granted as performance share awards by the average price of a Group share over the ten consecutive trading days ended February 24, 2022. The fair value of each performance share award was CHF 8.61, the Group share price on the grant date. The majority of performance share awards granted include the right to receive dividend equivalents on vested shares.

Strategic Delivery Plan

Strategic Delivery Plan (SDP) awards were one-off share-based awards granted in February 2022 to certain employees to incentivize the longer-term delivery of the Group's strategic plan. The SDP awards are subject to service conditions and performance-based metrics over the course of 2022-2024. SDP awards are scheduled to vest on the third anniversary of the grant date, with the exception of awards granted to individuals classified as material risk takers (MRTs), risk manager MRTs or senior managers or equivalents under the EU or UK Capital Requirements Directive V related provisions. SDP awards granted to MRTs vest in equal annual installments over two years, commencing on the third anniversary from the grant date. SDP awards granted to risk manager MRTs vest in equal annual installments over three years, while SDP awards granted to senior managers vest in equal annual installments over five years, both commencing on the third anniversary from the grant date. Prior to settlement, the principal amount of the SDP awards will be written down to zero and forfeited if any of the following triggering events exist at the end of 2023, 2024 or 2025:

- The Group's reported CET1 capital ratio below the FINMA-prescribed minimum + 50 basis points; or
- The Group's reported common equity tier 1 (CET1) leverage ratio falls below 3.7%.

In addition, the Compensation Committee will review and assess the overall success of the delivery of the strategic plan at a Group

level over the three-year period (2022-2024) and may increase the SDP awards up to a maximum of 50% of the initial award amount. Half of the potential uplift would be granted if a predetermined average Group return on tangible equity threshold is achieved, measured over the key strategic implementation years 2023 and 2024. The other half of the uplift may be awarded based on the Compensation Committee's assessment of risk management and other strategic non-financial achievements.

On February 11, 2022, the Bank parent company granted 16.3 million SDP awards with a total value of CHF 140 million. The number of SDP awards granted to employees was generally determined by dividing the deferred component of variable compensation being granted as SDP awards by the average price of a Group share over the ten consecutive trading days which ended on February 24, 2022. The fair value of each SDP award was CHF 8.61, the Group share price on the grant date.

The majority of SDP awards granted include the right to receive dividend equivalents on vested shares.

Contingent Capital Awards

CCA were granted in February 2022 and 2021 to certain employees as part of the 2021 and 2020 deferred variable compensation and have rights and risks similar to those of certain contingent capital instruments issued by the Group in the market. CCA are scheduled to vest on the third anniversary of the grant date, other than those granted to individuals classified as MRTs, risk manager MRTs or senior managers or equivalents under the EU or UK Capital Requirements Directive V-related provisions. CCA granted to MRTs, risk manager MRTs or senior managers vest on the fifth and seventh anniversaries of the grant date, respectively. CCA will be expensed over the vesting period. CCA generally provide a conditional right to receive semi-annual cash payments of interest equivalents until settled, with rates being dependent upon the vesting period and currency of denomination. CCA granted in 2022 and 2021 that vest four, five or seven years from the date of grant are not eligible for semi-annual cash payments of interest equivalents. CCA granted to certain regulated employees that vest over three years are not eligible for semi-annual cash payments of interest equivalents.

- CCA granted in 2022 and 2021 that are denominated in US dollars and vest three years from the date of grant receive interest equivalents at a rate of 4.18% and 3.60%, respectively, per annum plus the daily compounded (spread exclusive) US dollar Secured Overnight Financing Rate (SOFR); and
- CCA granted in 2022 and 2021 that are denominated in Swiss francs and vest three years from the date of grant receive interest equivalents at a rate of 3.44% and 3.06%, respectively, per annum plus the daily compounded (spread exclusive) Swiss franc Swiss Average Rate Overnight (SARON).

The rates were set in line with market conditions at the time of grant and existing high-trigger and low-trigger contingent capital instruments that the Group has issued.

At settlement, employees will receive either a contingent capital instrument or a cash payment based on the fair value of the CCA. The fair value will be determined by the Group. In the case of a cash settlement, the CCA award will be converted into the local currency of each respective employee.

CCA have loss-absorbing features such that prior to settlement, the principal amount of the CCA would be written down to zero and forfeited if any of the following trigger events were to occur:

- the Group's reported common equity tier 1 (CET1) ratio falls below 7%; or
- FINMA determines that cancellation of the CCA and other similar contingent capital instruments is necessary, or that the Group requires public sector capital support, in either case to prevent it from becoming insolvent or otherwise failing.

On February 11, 2022, the Bank parent company awarded CHF 8 million and USD 7 million of CCA that are expensed over the vesting period from the grant date.

Deferred fixed cash awards

In 2022, the Bank parent company granted CHF 29 million of deferred fixed cash to certain employees. This compensation is expensed over a three-year vesting period from the grant date.

Upfront cash awards

In February 2022, the Bank parent company granted CHF 197 million of upfront cash awards to certain employees as part of the cash component of their 2021 variable compensation. These awards are subject to repayment (clawback) by the employee in the event of voluntary resignation, termination for cause or in connection with other specified events or conditions within three years of the award grant. The amount subject to repayment is reduced in equal monthly instalments during the three-year period following the grant date.

Other cash awards

Other cash awards include special awards, capital opportunity facility awards, voluntary deferred compensation plans, employee investment plans as well as certain share and performance share awards settled in cash.

25 Amounts receivable from and amounts payable to related parties

end of	2022		2021	
	Amounts receivable	Amounts payable	Amounts receivable	Amounts payable
CHF million				
Shareholders with a qualified participation	1,962	66,489	1,725	55,705
Group companies	123,796	92,066	165,179	119,732
Affiliated companies	1,422	584	1,260	476
Members of governing bodies ¹	10	33	23	62

¹ Includes both the governing bodies of the Bank parent company (Credit Suisse AG) and the governing bodies of the Group holding company (Credit Suisse Group AG). Governing bodies include members of the Board of Directors, the Executive Board and the statutory auditors and companies controlled by members of each of these bodies.

Significant off-balance sheet transactions

As part of the normal course of business, the Bank parent company issues guarantees and loan commitments and enters into other agreements with group companies which are recorded as off-balance sheet transactions by the Bank parent company. As of December 31, 2022 and 2021, the Bank parent company had contingent liabilities of CHF 7,590 million and CHF 9,151 million, respectively, and irrevocable loan commitments of CHF 4,286 million and CHF 6,873 million, respectively, of which substantially all were related to transactions with group companies. As of December 31, 2022 and 2021, the Bank parent company also had liabilities for calls on shares and other equity instruments of CHF 2 million and CHF 6 million, respectively, with a group company.

As shareholder of Credit Suisse International, an unlimited company incorporated in England and Wales, the Bank parent

company has joint and several unlimited obligations to meet any insufficiency in the assets in the event of liquidation.

Additional information on related party transactions

For loans and other banking services, members of the Executive Board, employees and former employees may benefit from preferential terms available to all employees in certain jurisdictions as part of Bank parent company's employee benefit plans. Transactions with related parties are entered into at prevailing market conditions.

- Refer to "Off-balance sheet transactions" and "CS First Boston" in Note 1 – Company details, business developments and subsequent events – Subsequent events for further information on related party transactions.
- Refer to "Note 30 – Related parties" in VIII – Consolidated financial statements – Credit Suisse (Bank) for further information on related party transactions and Executive Board and Board of Directors loans.

26 Total assets by country rating

end of	2022		2021	
	CHF million ²	%	CHF million ²	%
Internal country rating ¹				
AAA	31,029	8.2%	75,118	13.9%
AA	219,333	58.0%	305,345	56.7%
A	24,133	6.3%	46,219	8.6%
BBB	15,517	4.1%	20,624	3.8%
Investment grade	290,012	76.6%	447,306	83.0%
BB	7,140	1.9%	8,416	1.6%
B	2,083	0.6%	3,961	0.7%
CCC	3,188	0.8%	3,048	0.6%
C	20	0.0%	0	0.0%
D	266	0.1%	157	0.0%
Non-investment grade	12,697	3.4%	15,582	2.9%
No rating ³	2,527	0.7%	2,891	0.5%
Foreign assets	305,236	80.7%	465,779	86.4%
Domestic assets	73,127	19.3%	73,434	13.6%
Total assets	378,363	100.0%	539,213	100.0%

- 1 Internal ratings are calibrated to the long-term issuer credit ratings of Standard & Poor's for the respective sovereigns. Internal country ratings may differ from Standard & Poor's respective country ratings.
- 2 Balance sheet exposure by country rating of risk domicile.
- 3 Includes exposures to countries that are not rated internally.

27 Fiduciary transactions

end of	2022	2021
CHF million		
Fiduciary placements with third-party institutions	2,754	1,834
Fiduciary transactions	2,754	1,834

28 Assets under management

Assets under management

Assets under management include assets for which the Bank parent company provides investment advisory or discretionary asset management services, investment fund assets and assets invested in other investment-fund-like pooled investment vehicles managed by the Bank parent company. The classification of assets under management is conditional upon the nature of the services provided by the Bank parent company and the clients' intentions. Assets are individually assessed on the basis of each client's intentions and objectives and the nature of the banking services provided to that client. In order to be classified as assets under management, the Bank parent company must currently or in the foreseeable future expect to provide a service where the involvement of the Bank parent company's banking or investment expertise (e.g., as asset manager or investment advisor) is not purely executional or custodial in nature.

Assets under custody are client assets held mainly for execution-related or safekeeping/custody purposes only and therefore are not considered assets under management since the Bank parent company does not generally provide asset allocation or financial advice.

Assets of corporate clients and public institutions that are used primarily for cash management or transaction executional purposes for which no investment advice is provided are classified as commercial assets or assets under custody and therefore do not qualify as assets under management.

For the purpose of classifying assets under management, clients with multiple accounts are assessed from an overall relationship perspective. Accounts that are clearly separate from the remainder of the client relationship and represent assets held for custody purposes only are not included as assets under management.

The initial classification of the assets may not be permanent as the nature of the client relationship is reassessed on an on-going basis. If changes in client intent or activity warrant reclassification between client asset categories, the required reclassification adjustments are made immediately when the change in intent or activity occurs. Reclassifications between assets under management and assets held for transaction-related or custodial purposes result in corresponding net asset inflows or outflows.

A portion of the Bank parent company's assets under management results from double counting. Double counting arises when assets under management are subject to more than one level of asset management services. Each separate advisory or discretionary service provides additional benefits to the client and

represents additional income for the Bank parent company. Specifically, double counting primarily results from the investment of assets under management in collective investment instruments managed by the Bank parent company. The extent of double counting is disclosed in the following table.

Assets under management

end of	2022	2021
CHF billion		
Assets in collective investment instruments managed by Credit Suisse AG	0.1	0.2
Assets with discretionary mandates	90.6	108.2
Other assets under management	274.9	396.2
Assets under management	365.6	504.6
of which double counting	0	0

Changes in assets under management

	2022	2021
CHF billion		
Balance at beginning of period ¹	504.6	482.5
Net new assets/(net asset outflows)	(68.2)	10.6
Market movements, interest, dividends and foreign exchange	(53.6)	19.2
of which market movements, interest and dividends ²	(52.6)	8.5
of which foreign exchange	(1.0)	10.7
Other effects	(17.2) ³	(7.7) ⁴
Balance at end of period ¹	365.6	504.6

- 1 Including double counting.
- 2 Net of commissions and other expenses and net of interest expenses charged.
- 3 Included mainly structural outflows of CHF 14.6 billion related to sanctions imposed in connection with Russia's invasion of Ukraine and CHF 2.0 billion related to the exit of the Sub-Sahara excluding South Africa market as a result of the Group's strategic review.
- 4 Included mainly structural outflows of CHF 2.7 billion related to the exit of a business and of CHF 2.6 billion related to the liquidation of the supply chain finance funds.

Net new assets

Net new assets measure the degree of success in acquiring assets under management or changes in assets under management through warranted reclassifications. The calculation is based on the direct method, taking into account individual cash payments, security deliveries and cash flows resulting from loan increases or repayments. Interest and dividend income credited to clients and commissions, interest and fees charged for banking services are not taken into account when calculating net new assets, as such charges are not directly related to the Bank parent company's success in acquiring assets under management. Similarly, changes in assets under management due to currency and market volatility as well as asset inflows and outflows due to the acquisition or divestiture of businesses are not part of net new assets.

- Refer to "Business developments" in Note 1 – Company details, business developments and subsequent events for further information.

Proposed appropriation of accumulated losses and capital distribution

Proposed appropriation of accumulated losses

	<u>2022</u>
Accumulated losses (CHF million)	
Accumulated losses carried forward	(17,870)
Net profit/(loss)	<u>(12,565)</u>
Accumulated losses to be carried forward	<u>(30,435)</u>

Proposed appropriation of legal capital reserves

	<u>2022</u>
Legal capital reserves – capital contribution reserves (CHF million)	
Balance at end of year	<u>34,790</u>
Proposed distribution for the financial year 2022	<u>(200)</u>
Proposed transfer of free capital contribution reserves	<u>7,500</u>
Balance after appropriation	<u>42,090</u>

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X – Additional information

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Statistical information

Statistical information – Group

Set forth below is statistical information for the Group required under the US Securities and Exchange Commission's (SEC) sub-part 1400 of Regulation S-K. The tables are based on information in VI – Consolidated financial statements – Credit Suisse Group.

Average balances and interest rates

in	2022			2021			2020		
	Average balance ¹	Interest income	Average rate	Average balance ¹	Interest income	Average rate	Average balance ¹	Interest income	Average rate
Assets (CHF million, except where indicated)									
Cash and due from banks									
Switzerland	201	8	3.98%	266	(14) ²	(5.26)% ²	845	(117) ²	(13.85)% ²
Foreign	71,483	606	0.85%	65,289	(101) ³	(0.15)% ³	39,581	16	0.04%
Interest-bearing deposits with banks									
Switzerland	76	0	0.00%	97	2	2.06%	63	1	1.59%
Foreign	818	9	1.10%	1,134	10	0.88%	1,038	2	0.19%
Securities purchased under resale agreements and securities borrowing transactions ⁴									
Switzerland	6,367	70	1.10%	7,773	35	0.45%	7,943	29	0.37%
Foreign	91,279	2,065	2.26%	102,371	1,137	1.11%	113,606	1,567	1.38%
Trading assets, net of trading liabilities ⁵									
Switzerland	2,432	246	10.12%	2,241	215	9.59%	337	32	9.50%
Foreign	61,594	2,293	3.72%	84,980	2,623	3.09%	99,115	3,126	3.15%
Investment securities									
Switzerland	134	3	2.24%	155	0	0.00%	151	0	0.00%
Foreign	1,008	11	1.09%	588	1	0.17%	596	3	0.50%
Loans									
Switzerland	164,163	2,381	1.45%	166,056	2,161	1.30%	162,609	2,234	1.37%
Foreign	122,812	3,506	2.85%	132,324	2,888	2.18%	133,025	3,499	2.63%
Other interest-earning assets									
Switzerland	2,327	24	1.03%	2,285	14	0.61%	2,750	7	0.25%
Foreign	17,792	1,029	5.78%	43,947	687	1.56%	72,678	862	1.19%
Interest-earning assets	542,486	12,251	2.26%	609,506	9,658	1.58%	634,337	11,261	1.78%
Specific allowance for losses	(12,819)			(10,362)			(5,744)		
Non-interest-earning assets	157,399			201,196			182,413		
Trading liabilities ⁶	14,722			24,243			28,328		
Total assets	701,788			824,583			839,334		
Percentage of assets attributable to foreign activities									
	51.63%			61.81%			73.01%		

¹ Monthly averages have been used where daily averages are unavailable.

² Includes negative interest income from deposits placed with the Swiss National Bank and other banks due to negative interest rates. The respective principal of such interest is reported under non-interest-earning assets.

³ Includes negative interest income from deposits placed with central banks due to negative interest rates.

⁴ Average balances of central bank funds sold, securities purchased under resale agreements and securities borrowing transactions are reported net in accordance with ASC Topic 210 – Balance sheet, while interest income excludes the impact of ASC Topic 210 – Balance sheet.

⁵ Interest and dividend income from trading assets and interest expenses from trading liabilities are presented on a net basis to align with the presentation of trading revenues.

⁶ Reconciling item since trading assets are presented net of trading liabilities.

Average balances and interest rates (continued)

in	2022			2021			2020		
	Average balance ¹	Interest expense	Average rate	Average balance ¹	Interest expense	Average rate	Average balance ¹	Interest expense	Average rate
Liabilities (CHF million, except where indicated)									
Deposits of banks									
Switzerland	556	(3)	(0.54)%	731	(7)	(0.96)%	820	(3)	(0.37)%
Foreign	16,865	130	0.77%	18,265	28	0.15%	18,244	146	0.80%
Deposits of non-banks									
Switzerland	162,935	132	0.08%	173,687	(154)	(0.09)%	170,724	(42)	(0.02)%
Foreign	196,878	1,487	0.76%	217,818	292	0.13%	211,216	1,012	0.48%
Central bank funds purchased / federal funds purchased ²									
Switzerland	0	0	0.00%	0	0	0.00%	0	0	0.00%
Foreign	381	2	0.52%	1,103	1	0.09%	748	5	0.67%
Securities sold under repurchase agreements and securities lending transactions ²									
Switzerland	83	26	31.33%	138	28	20.29%	1,337	52	3.89%
Foreign	24,328	740	3.04%	37,440	783	2.09%	45,416	850	1.87%
Commercial paper									
Switzerland	0	0	0.00%	0	0	0.00%	0	0	0.00%
Foreign	6,928	110	1.59%	8,634	20	0.23%	11,169	149	1.33%
Other short-term borrowings									
Switzerland	267	0	0.00%	2,300	56	2.43%	403	(3)	(0.74)%
Foreign	10,344	21	0.20%	10,619	10	0.09%	13,472	20	0.15%
Long-term debt									
Switzerland	82,677	2,664	3.22%	77,891	1,837	2.36%	57,758	1,882	3.26%
Foreign	79,182	926	1.17%	90,085	681	0.76%	103,453	871	0.84%
Other interest-bearing liabilities									
Switzerland	645	0	0.00%	847	(2)	(0.24)%	1,593	(2)	(0.13)%
Foreign	12,281	675	5.50%	24,710	274	1.11%	48,607	376	0.77%
Interest-bearing liabilities ³	594,350	6,910	1.16%	664,268	3,847	0.58%	684,960	5,313	0.78%
Non-interest-bearing liabilities	47,283			91,966			80,322		
Trading liabilities ⁴	14,722			24,243			28,328		
Total liabilities	656,355			780,477			793,610		
Shareholders' equity	45,433			44,106			45,724		
Total liabilities and shareholders' equity	701,788			824,583			839,334		
Percentage of liabilities attributable to foreign activities	60.36%			65.55%			69.71%		

1 Monthly averages have been used where daily averages are unavailable.

2 Average balances of central bank funds purchased, securities sold under repurchase agreements and securities lending transactions are reported net in accordance with ASC Topic 210 – Balance sheet, while interest expense excludes the impact of ASC Topic 210 – Balance sheet.

3 Interest and dividend income from trading assets and interest expenses from trading liabilities are presented on a net basis to align with the presentation of trading revenues.

4 Reconciling item since trading assets are presented net of trading liabilities.

Net interest income and interest rate spread

in	2022		2021		2020	
	Net interest income in CHF million	Interest rate spread in %	Net interest income in CHF million	Interest rate spread in %	Net interest income in CHF million	Interest rate spread in %
Net interest income and interest rate spread						
Switzerland	(87)	0.41	655	0.66	302	0.44
Foreign	5,428	1.42	5,156	1.17	5,646	1.21
Total net	5,341	1.10	5,811	1.00	5,948	1.00

The average rates earned and paid on related assets and liabilities can fluctuate within wide ranges and are influenced by several key factors. The most significant factor is changes in global interest rates. Additional factors include changes in the

geographic and product mix of the Group's business, and foreign exchange rate movements between the Swiss franc and the currency of the underlying individual assets and liabilities.

Selected margin information

in	2022	2021	2020
Selected margin information (average rate in %)			
Switzerland	(0.05)	0.37	0.17
Foreign	1.48	1.20	1.23
Net interest margin	0.98	0.95	0.94

The US Federal Reserve raised the target range of the federal funds rate to 0.25% to 0.50% in March 2022, 0.75% to 1.00% in May 2022, 1.50% to 1.75% in June 2022, 2.25% to 2.50% in July 2022, 3.00% to 3.25% in September 2022, 3.75% to 4.00% in November 2022 and 4.25% to 4.50% in December 2022.

The Swiss National Bank (SNB) raised the SNB policy rate to (0.25)% in June 2022, to 0.50% in September 2022 and to 1.00% in December 2022.

The European Central Bank changed the fixed rate tenders to 0.50% in July 2022, to 1.25% in September 2022, to 2.00% in October 2022 and to 2.50% in December 2022.

The Bank of England raised the bank rate to 0.50% in February 2022, to 0.75% in March 2022, to 1.00% in May 2022, to 1.25% in June 2022, to 1.75% in August 2022, to 2.25% in September 2022, to 3.00% in November 2022 and to 3.50% in December 2022.

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Analysis of changes in net interest income

in	2022 vs 2021			2021 vs 2020		
	Increase/(decrease) due to changes in			Increase/(decrease) due to changes in		
	Average volume	Average rate	Net change	Average volume	Average rate	Net change
Assets (CHF million)						
Cash and due from banks						
Switzerland	3	19	22	80	23	103
Foreign	(9)	716	707	10	(127)	(117)
Interest-bearing deposits with banks						
Switzerland	0	(2)	(2)	1	0	1
Foreign	(3)	2	(1)	0	8	8
Securities purchased under resale agreements and securities borrowing transactions						
Switzerland	(6)	41	35	(1)	7	6
Foreign	(123)	1,051	928	(155)	(275)	(430)
Trading assets, net of trading liabilities ¹						
Switzerland	18	13	31	181	2	183
Foreign	(723)	393	(330)	(445)	(58)	(503)
Investment securities						
Switzerland	0	3	3	0	0	0
Foreign	1	9	10	0	(2)	(2)
Loans						
Switzerland	(25)	245	220	47	(120)	(73)
Foreign	(207)	825	618	(18)	(593)	(611)
Other interest-earning assets						
Switzerland	0	10	10	(1)	8	7
Foreign	(408)	750	342	(342)	167	(175)
Interest-earning assets						
Switzerland	(10)	329	319	307	(80)	227
Foreign	(1,472)	3,746	2,274	(950)	(880)	(1,830)
Change in interest income						
	(1,482)	4,075	2,593	(643)	(960)	(1,603)

The change in average volume represents the change in the current average balance compared to the average balance from the prior year with respect to the average rate of the prior year. The change in average rate represents the difference between the net change of interest income and the change in average volume.

- ¹ Interest and dividend income from trading assets and interest expenses from trading liabilities are presented on a net basis to align with the presentation of trading revenues.

Analysis of changes in net interest income (continued)

in	2022 vs 2021			2021 vs 2020		
	Increase/(decrease) due to changes in			Increase/(decrease) due to changes in		
	Average volume	Average rate	Net change	Average volume	Average rate	Net change
Liabilities (CHF million)						
Deposits of banks						
Switzerland	2	2	4	0	(4)	(4)
Foreign	(2)	104	102	0	(118)	(118)
Deposits of non-banks						
Switzerland	10	276	286	(1)	(111)	(112)
Foreign	(27)	1,222	1,195	32	(752)	(720)
Central bank funds purchased / federal funds purchased						
Switzerland	0	0	0	0	0	0
Foreign	(1)	2	1	2	(6)	(4)
Securities sold under repurchase agreements and securities lending transactions						
Switzerland	(11)	9	(2)	(47)	23	(24)
Foreign	(274)	231	(43)	(149)	82	(67)
Commercial paper						
Switzerland	0	0	0	0	0	0
Foreign	(4)	94	90	(34)	(95)	(129)
Other short-term borrowings						
Switzerland	(49)	(7)	(56)	(14)	73	59
Foreign	0	11	11	(4)	(6)	(10)
Long-term debt						
Switzerland	113	714	827	656	(701)	(45)
Foreign	(83)	328	245	(112)	(78)	(190)
Other interest-bearing liabilities						
Switzerland	0	2	2	1	(1)	0
Foreign	(138)	539	401	(184)	82	(102)
Interest-bearing liabilities						
Switzerland	65	996	1,061	595	(721)	(126)
Foreign	(529)	2,531	2,002	(449)	(891)	(1,340)
Change in interest expense ¹						
	(464)	3,527	3,063	146	(1,612)	(1,466)
Change in interest income						
Switzerland	(75)	(667)	(742)	(288)	641	353
Foreign	(943)	1,215	272	(501)	11	(490)
Total change in net interest income ¹						
	(1,018)	548	(470)	(789)	652	(137)

The change in average volume represents the change in the current average balance compared to the average balance from the prior year with respect to the average rate of the prior year. The change in average rate represents the difference between the net change of interest income and the change in average volume.

¹ Interest and dividend income from trading assets and interest expenses from trading liabilities are presented on a net basis to align with the presentation of trading revenues.

Maturities and weighted-average yields of debt securities included in financial investments

end of 2022	Within 1 year		1 to 5 years		5 to 10 years		Total	
	Amount in CHF million	Yield in %						
Debt securities								
Swiss federal, cantonal or local governmental entities	2	3.99	0	—	0	—	2	3.99
Foreign governments	0	—	921	3.94	0	—	921	3.94
Corporate debt securities	17	0.59	237	0.33	697	0.36	951	0.35
Total debt securities	19	0.89	1,158	3.20	697	0.36	1,874	2.12

Since substantially all investment securities are taxable securities, the yields presented above are on a tax-equivalent basis.

The values above reflect amortized cost. Refer to “Note 17 – Investment securities” in VI –Consolidated financial statements – Credit Suisse Group for further information.

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Loan portfolio by industry

end of	2022	2021
Loan portfolio by industry (CHF million)		
Banks	1,195	1,691
Other financial services	23,505	23,531
Real estate companies	25,463	28,529
Other services	21,173	25,132
Manufacturing	9,534	9,367
Wholesale and retail trade	9,753	9,386
Construction	2,994	3,406
Transportation	11,372	13,201
Health and social services	2,789	2,883
Hotels and restaurants	1,791	1,914
Agriculture and mining	1,745	2,475
Telecommunications	489	840
Governments, public institutions and non-profit organizations	2,972	3,848
Corporate & institutional	114,775	126,203
Consumer	150,824	166,861
Gross loans	265,599	293,064
Net (unearned income)/deferred expenses	(71)	(81)
Allowance for credit losses	(1,363)	(1,297)
Net loans	264,165	291,686

Details of the loan portfolio by time remaining until contractual maturity by category

end of 2022	1 year or less	1 year to 5 years	5 years to 15 years	After 15 years	Loans with no stated maturity ¹	Self-amortizing loans ²	Total
Loan portfolio (CHF million)							
Mortgages	11,810	38,518	29,813	551	0	3	80,695
Loans collateralized by securities	26,577	5,072	965	0	0	23	32,637
Consumer finance	1,531	31	0	0	0	3,804	5,366
Consumer	39,918	43,621	30,778	551	0	3,830	118,698
Real estate	3,410	4,293	4,398	322	0	48	12,471
Commercial and industrial loans	19,672	4,079	2,145	96	0	2,516	28,508
Financial institutions	4,830	1,579	1,027	25	0	411	7,872
Governments and public institutions	209	532	215	34	0	12	1,002
Corporate & institutional	28,121	10,483	7,785	477	0	2,987	49,853
Gross loans with fixed interest rates	68,039	54,104	38,563	1,028	0	6,817	168,551
Mortgages	17,254	8,512	151	2	703	167	26,789
Loans collateralized by securities	3,913	1,072	17	0	0	0	5,002
Consumer finance	304	15	0	15	1	0	335
Consumer	21,471	9,599	168	17	704	167	32,126
Real estate	10,601	2,071	31	0	219	70	12,992
Commercial and industrial loans	10,327	15,885	5,650	0	99	1,588	33,549
Financial institutions	7,004	8,683	1,062	12	5	62	16,828
Governments and public institutions	223	839	490	0	0	1	1,553
Corporate & institutional	28,155	27,478	7,233	12	323	1,721	64,922
Gross loans with variable interest rates³	49,626	37,077	7,401	29	1,027	1,888	97,048
Gross loans	117,665	91,181	45,964	1,057	1,027	8,705	265,599
Net (unearned income)/deferred expenses							(71)
Allowance for credit losses							(1,363)
Net loans							264,165

- Loans with no stated maturity include primarily certain loan products within Switzerland without a stated maturity within the original loan agreement.
- Self-amortizing loans include loans with monthly or quarterly interest and principal payments and are primarily related to lease financings.
- Includes rollover loans with interest fixing periods of up to 12 month.

Allowance for credit losses – credit ratios

	2022	2021	2020
Components (CHF million)			
Gross loans	258,241	282,821	282,131
Allowance for credit losses	1,363	1,297	1,536
Non-accrual loans	1,963	1,964	2,041
Credit ratios (%)			
Allowance for credit losses / Gross loans	0.5	0.5	0.5
Non-accrual loans / Gross loans	0.8	0.7	0.7
Allowance for credit losses / non-accrual loans	69.4	66.0	75.3

Gross loans and non-accrual loans exclude loans carried at fair value and the allowance for credit losses is only based on loans that are not carried at fair value.

Allowance for credit losses – ratio of net write-offs to average loans

end of	2022			2021			2020		
	Average loan balance ¹	Net write-offs	Ratio net write-offs/ average loan	Average loan balance ¹	Net write-offs	Ratio net write-offs/ average loan	Average loan balance ¹	Net write-offs	Ratio net write-offs/ average loan
Ratio of net write-offs to average loans (CHF million, except where indicated)									
Mortgages	109,429	(12)	0.0%	112,023	0	0.0%	107,709	(1)	0.0%
Loans collateralized by securities	45,786	(1)	0.0%	53,422	0	0.0%	45,429	(36)	(0.1)%
Consumer finance	5,628	(40)	(0.7)%	5,946	(46)	(0.8)%	4,687	(42)	(0.9)%
Consumer	160,843	(53)	0.0%	171,391	(46)	0.0%	157,825	(79)	(0.1)%
Real estate	27,623	(1)	0.0%	29,304	0	0.0%	29,122	(4)	0.0%
Commercial and industrial loans	68,600	(112)	(0.2)%	73,115	(236)	(0.3)%	82,292	(229)	(0.3)%
Financial institutions	26,798	0	0.0%	21,137	(1)	0.0%	22,745	0	0.0%
Governments and public institutions	3,197	0	0.0%	3,527	0	0.0%	3,755	0	0.0%
Corporate & institutional	126,218	(113)	(0.1)%	127,083	(237)	(0.2)%	137,914	(233)	(0.2)%
Gross loans	287,061	(166)	(0.1)%	298,474	(283)	(0.1)%	295,739	(312)	(0.1)%

1 Monthly averages have been used where daily averages are unavailable.

- Refer to “Credit risk” in III – Treasury, Risk, Balance sheet and Off-balance sheet – Risk management – Risk portfolio analysis and “Note 20 – Financial instruments measured at amortized cost and credit losses” in VI – Consolidated financial statements – Credit Suisse Group for further information on changes in the credit ratios and the related components.

Analysis of the allowance for credit losses

end of	2022		2021		2020	
	CHF million	% of allowance in each category to total loans	CHF million	% of allowance in each category to total loans	CHF million	% of allowance in each category to total loans
Analysis of the allowance for credit losses						
Mortgages	57	0.0%	79	0.0%	75	0.0%
Loans collateralized by securities	161	0.1%	125	0.0%	86	0.0%
Consumer finance	141	0.1%	153	0.1%	157	0.1%
Consumer	359	0.1%	357	0.1%	318	0.1%
Real estate	100	0.0%	55	0.0%	61	0.0%
Commercial and industrial loans	807	0.3%	779	0.3%	1,049	0.4%
Financial institutions	93	0.0%	100	0.0%	106	0.0%
Governments and public institutions	4	0.0%	6	0.0%	2	0.0%
Corporate & institutional	1,004	0.4%	940	0.3%	1,218	0.4%

Total allowance for credit losses	<u>1,363</u>	<u>0.5%</u>	<u>1,297</u>	<u>0.5%</u>	<u>1,536</u>	<u>0.5%</u>
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Percentages may not add up due to rounding.

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Deposits in Switzerland and foreign offices

in	2022			2021			2020		
	Average balance ¹	Interest expense	Average rate	Average balance ¹	Interest expense	Average rate	Average balance ¹	Interest expense	Average rate
Deposits (CHF million, except where indicated)									
Non-interest-bearing demand	3,145	—	—	3,436	—	—	3,404	—	—
Interest-bearing demand	139,004	(76)	(0.1)%	146,211	(218)	(0.1)%	134,857	(176)	(0.1)%
Savings deposits	54,360	0	0.0%	62,247	25	0.0%	63,469	29	0.0%
Time deposits	29,550	78	0.3%	32,575	(66)	(0.2)%	28,742	(3)	0.0%
Switzerland	226,059	2	0.0%	244,469	(259)	(0.1)%	230,472	(150)	(0.1)%
Non-interest-bearing demand	2,275	—	—	2,982	—	—	7,347	—	—
Interest-bearing demand	36,790	87	0.2%	46,241	22	0.0%	36,360	32	0.1%
Savings deposits	9,222	134	1.5%	9,442	32	0.3%	5,694	37	0.6%
Time deposits	108,308	1,523	1.4%	113,785	364	0.3%	131,882	1,194	0.9%
Foreign	156,595	1,744	1.1%	172,450	418	0.2%	181,283	1,263	0.7%
Total deposits	382,654	1,746	0.5%	416,919	159	0.0%	411,755	1,113	0.3%

Deposits by foreign depositors in Swiss offices amounted to CHF 39.8 billion, CHF 80.2 billion and CHF 73.1 billion as of December 31, 2022, 2021 and 2020, respectively.

1 Monthly averages have been used where daily averages are unavailable.

Uninsured and insured deposits

	2022	2021	2020
Deposits (CHF million)			
Uninsured deposits ¹	209,309	365,809	368,943
Insured deposits ²	35,831	45,975	38,401
Total deposits	245,140	411,784	407,344

- 1 Uninsured deposits are the portion of deposits per client that exceed insurance limits of insurance regimes from countries in which Credit Suisse holds deposits. In addition, uninsured deposits include all deposits which are not covered by an insurance regime.
- 2 The majority of insured deposits is held in Switzerland and Guernsey. For Switzerland and Guernsey the insurance limit per client is CHF 100,000 and GBP 50,000, respectively.

Maturities of uninsured time deposits

in	2022
Time deposits (CHF million)	
3 months or less	56,241
Over 3 through 6 months	8,245
Over 6 through 12 months	8,491
Over 12 months	1,759
Total uninsured time deposits ¹	74,736

Uninsured time deposits are calculated based on the percentage of time deposits to total deposits and they are allocated to the maturities buckets on the basis of total time deposits.

As of the end of 2022, there were no US time deposits that were in excess of the Federal Deposit Insurance Corporation insurance limit or similar state deposit insurance regime.

- 1 Time deposits that are uninsured (including, for example, US time deposits in uninsured accounts, non-US time deposits in uninsured accounts or non-US time deposits in excess of any country-specific insurance fund limit).

Statistical information – Bank

Statistical information for the Group is required under the SEC's subpart 1400 of Regulation S-K. Statistical information for the Bank is not

The principal differences relate to intercompany eliminations. Certain statistical information is also included in VIII – Consolidated financial statements – Credit Suisse (Bank), including Notes 5 – Net interest income, 16 – Investment securities, 18 – Loans, 19 – Financial

materially different, either in absolute amount or in terms of trends, from such statistical information for the Group.

instruments measured at amortized cost and credit losses, 24 – Deposits and 33 – Guarantees and commitments.

Other information

Exchange controls

There are no restrictions presently in force under our Articles of Association or Swiss law that limit the right of non-resident or foreign owners to hold our securities freely or, when entitled, to vote their securities freely. The Swiss federal government may from time to time impose sanctions, including exchange control restrictions, on particular countries, regimes, organizations or persons. A current list, in German, of such sanctions can be found at www.seco-admin.ch. Other than these sanctions, there are currently no Swiss exchange control laws or laws restricting the import or export of capital, including, but not limited to, the remittance of dividends, interest or other payments to non-resident holders of our securities.

American Depositary Shares

Under Swiss law, holders of American Depositary Shares (ADS) are not shareholders and are not recorded in our share register. A nominee for the ADS depository is the registered holder of the shares underlying the ADS. Rights of ADS holders to exercise voting rights, receive dividends and other matters are governed by the deposit agreement pursuant to which the ADS are issued. Under such deposit agreement, the ADS depository shall not vote or attempt to exercise the right to vote that attaches to the shares underlying the ADS, for purposes of establishing a quorum or otherwise, other than in accordance with instructions given by ADS holders and received by the ADS depository, or exercise any discretion as to voting the shares underlying the ADS. For further information relating to our ADS, see our Registration Statement on Form F-6 filed with the SEC.

Taxation

The following summary contains a description of the principal Swiss and US federal income tax consequences of the acquisition, ownership and disposition of our shares or ADS (Shares), but it does not purport to be a comprehensive description of all of the tax considerations that may be relevant to a decision to own or dispose of Shares. In particular, the summary is directed only to holders that hold Shares as capital assets and does not address tax considerations applicable to investors that may be subject to special tax rules, such as banks, tax-exempt entities, insurance companies, dealers in securities or currencies, traders in securities electing to mark to market, persons that actually or constructively own a participation in our stock that qualifies for reduced taxation, persons that hold Shares as a position in a “straddle” or “conversion” transaction, or as part of a “synthetic security” or other integrated financial transaction, persons that own or are treated as owning 10% or more of our stock by vote or value, or persons that have a “functional currency” other than the Swiss franc or US dollar.

This summary is based on the current tax laws of Switzerland and the US, including the current “Convention Between the United States of America and the Swiss Confederation for the Avoidance of Double Taxation with Respect to Taxes on Income” (Double Taxation Treaty), the “Agreement on the Automatic Exchange of Information in Tax Matters with the European Union” (AEOI) and similar bilateral treaties with partner states, the US Internal Revenue Code of 1986, as amended (IR Code), existing and proposed regulations thereunder, published rulings and court decisions, all of which are subject to change, possibly with retroactive effect.

This discussion does not generally address any aspects of Swiss taxation other than income and capital taxation, withholding taxes and stamp duties upon transfer of Shares or any aspects of US taxation other than federal income taxation. Prospective investors are urged to consult their tax advisors regarding the Swiss federal, cantonal and communal and the US federal, state and local and other tax consequences of acquiring, owning and disposing of Shares.

Swiss taxation

Swiss withholding tax on dividends and other distributions

Dividends on the Shares made or paid by us out of reserves from capital contributions (*Reserven aus Kapitaleinlagen*), distributions on the Shares made or paid by us based upon a reduction in the nominal value of the Shares (*Nennwertrückzahlungen*), and the purchase price for Shares repurchased by us for a capital reduction paid out of reserves from capital contributions and the nominal value of Shares will be exempt from Swiss withholding tax.

Dividends and other cash or in-kind distributions (including scrip or stock dividends) on the Shares made or paid by us out of profit or reserves (other than reserves from capital contributions) and the purchase price less the nominal value for Shares repurchased by us for a capital reduction paid out of profit or reserves (other than reserves from capital contributions) are subject to Swiss withholding tax, currently at a rate of 35%. If we pay a dividend on the Shares out of reserves from capital contributions, we will be required to simultaneously pay a dividend on the Shares out of profit or reserves (other than reserves from capital contributions) of at least the same amount. If we repurchase Shares for a capital reduction, we must pay at least half of the purchase price, less the nominal value of the Shares repurchased for such capital reduction, out of reserves from capital contributions, and may not pay more than half of the purchase price, less the nominal value of the Shares repurchased for such capital reduction, out of profit or reserves (other than reserves from capital contributions). Capital gains realized on the sale or other disposition of Shares in the secondary market are not subject to Swiss withholding tax. Any Swiss withholding tax described above must be deducted by us on the gross taxable amount of the dividend or other distribution or the purchase price, as applicable, and be remitted by us to the Swiss Federal Tax Administration.

Persons resident in Switzerland and persons resident outside of Switzerland who hold Shares in a business carried on through a permanent establishment in Switzerland

The relevant Swiss tax authority will refund or credit the Swiss withholding tax deducted by us on the taxable amounts of any dividend or other distribution on any Share, or the purchase price for any Share repurchased by us for a capital reduction, in full to a person who (i) is resident in Switzerland or is resident outside of Switzerland but holds (or, in the case of any such repurchase, held) such Share in a business carried on through a permanent establishment in Switzerland for tax purposes, and (ii) among other things, is the beneficial owner of such dividend or other distribution on, or such purchase price for, such Share repurchased by us for a capital reduction, and duly reports such dividend or other distribution or purchase price, as applicable, in their income tax return or their financial statements, as applicable, for the relevant taxation period.

Persons resident outside Switzerland who do not hold Shares in a business carried on through a permanent establishment in Switzerland

In the case of Swiss withholding tax deducted by us on the taxable amounts of any dividend or other distribution on the Shares, or the purchase price for Shares repurchased for a capital reduction, a person who (i) is not resident in Switzerland and (ii) does not hold (or, in the case of a repurchase of Shares for a capital reduction, did not hold) such Shares in a business carried on through a permanent establishment in Switzerland for tax purposes, may be entitled to a full or partial refund of such Swiss withholding tax, if the country in which such person resides for tax purposes has entered into a bilateral treaty for the avoidance of double taxation with Switzerland, such person is the beneficial owner of such dividend or other distribution or such purchase price and the conditions of the applicable treaty are met. A reduction of any such Swiss withholding tax at source is not provided for by Switzerland for portfolio holdings and, therefore, is not permissible. Holders of Shares should be aware that the procedures for claiming treaty benefits (and the time frame required for obtaining a tax refund) may differ from country to country and should consult their own legal, financial or tax advisors regarding the procedures for claiming a refund of any Swiss withholding tax.

Residents of the US

In the case of Swiss withholding tax deducted by us on the taxable amounts of any dividend or other distribution on Shares, or the purchase price for Shares repurchased for a capital reduction, a person who (i) is (x) a resident of the US for purposes of the Double Taxation Treaty without taxable presence in Switzerland to which such Shares are attributable or (y) a qualified US pension fund and (ii) is (or, in the case of any such repurchase, at the time of such repurchase, was) the beneficial owner of such Shares and is the beneficial owner of such dividend or other distribution or purchase price, as applicable, and meets the conditions of the Double Taxation Treaty, may apply for a full refund of such Swiss withholding tax in the case of qualified US pension funds or in excess of the amount of the 15% treaty rate in all other cases.

The claim for refund must be filed on Swiss Tax Form 82 (82C for corporations, 82I for individuals, 82E for other entities and 82R for regulated investment companies), which forms may, together with an instruction form, be downloaded from the Swiss Federal Tax Administration's website, obtained from any Swiss consulate general in the US, or obtained from the Swiss Federal Tax Administration at the address below. Four copies of the applicable form must be duly completed and signed before a notary public of the US, and three of such completed and signed copies must be sent to the Swiss Federal Tax Administration, Eigerstrasse 65, 3003, Bern, Switzerland. The form must be accompanied by suitable evidence of deduction of the Swiss withholding tax, such as certificates of deduction, bank vouchers or credit slips. The form must be filed no later than December 31 of the third year following the calendar year in which the dividend or other distribution subject to the Swiss withholding tax became payable.

Income tax on dividends and other distributions

Shares held by Swiss resident individuals as private assets

For holders of Shares who (i) are individuals resident in Switzerland for tax purposes and (ii) hold such Shares as private assets, dividends and other distributions on Shares made or paid by us out of reserves from capital contributions (*Reserven aus Kapital-einlagen*), distributions on Shares made or paid by us based upon a reduction in the nominal value of Shares (*Nennwertrückzahlungen*), and the purchase price for Shares repurchased by us for a capital reduction paid out of reserves from capital contributions and the nominal value of Shares are exempt from Swiss federal, cantonal and communal income taxes. For such holders, all other dividends and other distributions and the purchase price for Shares repurchased by us for a capital reduction not paid out of reserves from capital contributions and the nominal value of Shares are subject to Swiss federal, cantonal, and communal income taxes. If we pay a dividend on the Shares out of reserves from capital contributions, we will be required to simultaneously pay a dividend on the Shares out of profit or reserves (other than reserves from capital contributions) of at least the same amount. If we repurchase Shares for a capital reduction, we must pay at least half of the purchase price, less the nominal value of the Shares repurchased for such capital reduction, out of reserves from capital contributions, and may not pay more than half of the purchase price, less the nominal value of the Shares repurchased for such capital reduction, out of profit or reserves (other than reserves from capital contributions).

Shares held as assets of a Swiss business

Corporate taxpayers resident in Switzerland, individual taxpayers resident in Switzerland who hold Shares as assets of a Swiss business, and corporate and individual taxpayers resident outside Switzerland who hold Shares as part of a business carried on through a permanent establishment in Switzerland for tax purposes, are required to recognize payments of dividends and other distributions on such Shares (including repayment of the nominal value of such Shares and distributions on such Shares out of reserves from capital contributions), and the purchase price for any such Shares repurchased by us for a capital reduction, in their income statement for the relevant taxation period, and

are taxed on any net taxable earnings on such Shares (including such payments) for such taxation period at the then prevailing tax rates. This taxation also applies to Swiss resident individuals who, for Swiss income tax purposes, are classified as “professional securities dealers” for reasons of, among other things, frequent dealings, or leveraged transactions, in securities.

A holder of Shares that is (i) a Swiss corporation or a Swiss co-operative or (ii) a non-Swiss corporation or a non-Swiss co-operative that holds such Shares as part of a business carried on through a permanent establishment in Switzerland for tax purposes, may benefit from relief from taxation of dividends and other distributions on such Shares (including repayment of the nominal value of such Shares and distributions on such Shares out of reserves from capital contributions), and the purchase price for any such Shares repurchased by us for a capital reduction by way of a participation exemption (*Beteiligungsabzug*), if at the time of such dividend or other distribution or such repurchase, such Shares have a market value of at least CHF 1 million.

Shares held by persons resident outside of Switzerland who are not engaged in a business carried on through a permanent establishment in Switzerland

A holder of Shares who (i) is not a resident of Switzerland for tax purposes and (ii) during the relevant taxation period has not engaged in a business carried on through a permanent establishment in Switzerland for tax purposes to which such Shares are attributable, will not be subject to any Swiss federal, cantonal or communal income tax as a result of the receipt of dividends or other distributions on such Shares, or the purchase price for any such Shares repurchased by us for a capital reduction.

- Refer to “Swiss withholding tax on dividends and other distributions” for a summary of the taxation treatment of dividends and other distributions on Shares and the purchase price received for Shares repurchased by us for capital reduction.

Capital gains tax realized on Shares

Shares held by Swiss resident individuals as private assets

A capital gain realized by a holder of Shares (other than a capital gain on the sale of Shares to us for a capital reduction) who (i) is an individual resident in Switzerland for tax purposes and (ii) holds such Shares as private assets is classified as a tax-exempt private capital gain and a capital loss realized by such a holder will be classified as a non-tax-deductible private capital loss for purposes of Swiss federal, cantonal and communal income tax.

- Refer to “Shares held as assets of a Swiss business” for information on the taxation of individuals classified as “professional securities dealers”.
- Refer to “Shares held by Swiss resident individuals as private assets – Income tax on dividends and other distributions for information on the taxation of the purchase price received for Shares repurchased by us for a capital reduction.

Shares held as assets of a Swiss business

Corporate taxpayers resident in Switzerland, individual taxpayers resident in Switzerland who hold Shares as part of a business in Switzerland, and individual and corporate taxpayers resident outside

purposes, are required to recognize any gain or loss realized on the sale or other disposition of such Shares in their income statement for the relevant taxation period, and will be taxed on any net taxable earnings on such Shares (including such gain or loss) for such taxation period at the then prevailing tax rates. This taxation also applies to Swiss resident individuals who, for Swiss income tax purposes, are classified as “professional securities dealers” for reasons of, among other things, frequent dealings, or leveraged transactions, in securities.

Shares held by persons resident outside of Switzerland who are not engaged in a business carried on through a permanent establishment in Switzerland

A holder of Shares who (i) is not resident in Switzerland for tax purposes and (ii) during the relevant taxation period has not engaged in a business carried on through a permanent establishment in Switzerland for tax purposes to which such Shares are attributable, will not be subject to any Swiss federal, cantonal or communal income tax as a result of any gain realized on the sale or other disposition of such Shares.

- Refer to “Swiss withholding tax on dividends and other distributions” for a summary of the taxation treatment of purchase price received for Shares repurchased by us for a capital reduction.

Wealth and capital taxes

Shares held by Swiss resident individuals as private investments

A holder of Shares who is an individual resident in Switzerland for tax purposes and who holds the Shares as private assets is required to include the Shares in taxable wealth for purposes of cantonal and communal taxable wealth taxes.

Shares held as assets of a Swiss business

Corporate taxpayers resident in Switzerland, individual taxpayers resident in Switzerland who hold Shares as assets of a Swiss business, and corporate and individual taxpayers resident outside Switzerland who hold Shares as part of a business carried on through a permanent establishment in Switzerland for tax purposes, are required to include the Shares in taxable wealth or taxable assets, as applicable, in the relevant tax period for purposes of cantonal and communal individual wealth tax or capital tax, as applicable.

Non-resident individuals and legal entities

A holder of Shares who (i) is not a resident of Switzerland for tax purposes and (ii) during the relevant taxation period has not engaged in a business carried on through a permanent establishment in Switzerland for tax purposes to which such Shares are attributable, will not be subject to any cantonal or communal wealth tax or capital tax as a result of the holding of Shares.

Swiss securities turnover tax

The trading of Shares in the secondary market is subject to Swiss securities turnover tax (*Umsatzabgabe*), currently at a rate of 0.15% of the consideration paid for the Shares traded, if a securities dealer (as defined in the Swiss Act on Stamp Duties

Switzerland who hold Shares as part of a business carried on through a permanent establishment in Switzerland for tax

566 Other information

of June 27, 1973, as amended) in Switzerland or the Principality of Liechtenstein is a party to, or acts as an intermediary for, the transaction and no statutory exemption applies in respect of one or both of the parties to the transaction. In such case and subject to any applicable statutory exemptions, typically half of the Swiss securities turnover tax is charged to one party to the transaction and the other half to the other party.

Automatic exchange of information

In Switzerland, the Multilateral Convention on Mutual Administrative Assistance in Tax Matters (MAC) and the Multilateral Competent Authority Agreement (MCAA), together with the Federal Act on the International Automatic Exchange of Information in Tax Matters and its implementing ordinance, form the legal basis for the Organisation of Economic Co-operation and Development (OECD) regime on automatic exchange of information for tax purposes. Based on the MCAA and a number of bilateral automatic exchange of information agreements, Switzerland collects and exchanges information with more than 100 Participating Jurisdictions, including all EU member states, in respect of financial assets held in, and income derived thereon and credited to, accounts (including Shares held in any such accounts) maintained in Switzerland for the benefit of clients (i.e., entities or individuals) tax resident in these Participating Jurisdictions. An up-to-date list of the AEOI agreements to which Switzerland is a party that are in effect, or have been entered into but are not yet in effect, can be found on the website of the State Secretariat for International Financial Matters SIF.

Swiss facilitation of the implementation of the US Foreign Account Tax Compliance Act

Switzerland has concluded an a “Model 2” intergovernmental agreement with the US to facilitate the implementation of US Foreign Account Tax Compliance Act (FATCA). The agreement ensures that accounts held by US persons maintaining accounts with financial assets (including Shares held in any such accounts) with Swiss financial institutions are disclosed to the US tax authorities either with the consent of the account holder or by means of group requests within the scope of administrative assistance on the basis of the US-Switzerland Double Tax Treaty. Since it was amended in 2019, the Treaty includes a mechanism for the exchange of information in tax matters upon request between Switzerland and the United States, allowing the United States to make group requests under FATCA concerning non-consenting US accounts and non-consenting non-participating foreign financial institutions for periods from June 30, 2014. Furthermore, on October 8, 2014, the Swiss Federal Council approved a mandate for negotiations with the United States regarding a “Model 1” intergovernmental agreement that would replace the existing agreement and that would change from the current direct notification-based regime to a regime where the relevant information is sent to the Swiss Federal Tax Administration, which in turn provides the information to the US tax authorities. It is not yet known when negotiations will continue and, if they do, if and when any new regime would come into force.

US federal income tax

For purposes of this discussion, a “US Holder” is any beneficial owner of Shares that is: (i) a citizen or resident of the US; (ii) a corporation organized under the laws of the US or any political subdivision thereof; or (iii) any other person that is subject to US federal income tax on a net income basis in respect of Shares. A “Non-US Holder” is any beneficial owner of Shares that is a foreign corporation or non-resident alien individual.

Taxation of dividends

US Holders

For US federal income tax purposes, a US Holder will be required to include the full amount (before reduction for Swiss federal withholding tax) of a dividend paid with respect to Shares, generally as ordinary income. Subject to certain exceptions for short-term and hedged positions, the US dollar amount of dividends received by an individual with respect to our Shares will be subject to taxation at a maximum rate of 20% if the dividends are “qualified dividends”. Dividends paid on the Shares will be treated as qualified dividends if we were not, in the year prior to the year in which the dividend was paid, and are not, in the year in which the dividend is paid, a passive foreign investment company (PFIC). Based on our audited consolidated financial statements, we believe that the Group was not treated as a PFIC for US federal income tax purposes with respect to our 2022 or 2021 taxable years. In addition, based on the audited consolidated financial statements of the Group and our current expectations regarding the value and nature of our assets and the sources and nature of our income, we do not anticipate the Group becoming a PFIC for the 2023 taxable year. Holders of our Shares should consult their own tax advisors regarding the availability of the reduced dividend tax rate in light of the considerations discussed above and their own particular circumstances. For this purpose, a “dividend” will include any distribution paid by us with respect to Shares, but only to the extent such distribution is not in excess of our current and accumulated earnings and profits as defined for US federal income tax purposes. Under the IR Code, dividend payments by us on Shares are not eligible for the dividends received deduction generally allowed to corporate shareholders. Any distribution that exceeds our earnings and profits will be treated as a non-taxable return of capital to the extent of the US Holder’s tax basis in Shares and thereafter as capital gain. Because we do not intend to maintain calculations of our earnings and profits on the basis of US federal income tax principles, a US Holder should expect that any information reporting it receives may treat the full amount of any distribution paid as a dividend.

Subject to the limitations and conditions provided in the IR Code, a US Holder may deduct from its US federal taxable income, or claim as a credit against its US federal income tax liability, the Swiss federal withholding tax withheld. These limitations and conditions include new requirements recently adopted by the US Internal Revenue Service (IRS), and any Swiss tax will need to satisfy these requirements in order to be eligible to be a creditable

tax for a US Holder. In the case of a US Holder that is eligible for, and properly elects, the benefits of the Treaty, Swiss tax on dividends will be treated as meeting the new requirements and therefore as a creditable tax. In the case of all other US Holders, the application of these requirements to the Swiss tax on dividends is uncertain and we have not determined whether these requirements have been met. If the Swiss dividend tax is not a creditable tax for a US Holder or the US Holder does not elect to claim a foreign tax credit for any foreign income taxes paid or accrued in the same taxable year, the US Holder may be able to deduct the Swiss tax in computing such US Holder's taxable income for US federal income tax purposes. Dividend distributions will constitute income from sources outside the United States and, for US Holders that elect to claim foreign tax credits, generally will constitute "passive category income" for foreign tax credit purposes.

In general, a US Holder will be required to determine the amount of any dividend paid in Swiss francs by translating the Swiss francs into US dollars at the "spot rate" of exchange on the date of receipt. The tax basis of Swiss francs received by the US Holder generally will equal the US dollar equivalent of such Swiss francs, translated at the spot rate of exchange on the date such Swiss franc dividends are received. Upon a subsequent exchange of such Swiss francs for US dollars, or upon the use of such Swiss francs to purchase property, a US Holder will generally recognize ordinary income or loss in the amount equal to the difference between such US Holder's tax basis for the Swiss francs and the US dollars received or, if property is received, the fair market value of the property. In addition, a US Holder may be required to recognize US-source foreign currency gain or loss on the receipt of a refund in respect of Swiss federal withholding tax to the extent the US dollar value of the refund differs from the US dollar equivalent of the amount on the date of receipt of the underlying dividend.

Non-US Holders

Dividends paid to a Non-US Holder in respect of Shares will generally not be subject to US federal income tax unless such

dividends are effectively connected with the conduct of a trade or business within the US by such Non-US Holder.

Capital gains tax upon disposal of shares

US Holders

A gain or loss realized by a US Holder on the sale or other disposition of Shares will be subject to US federal income taxation as a capital gain or loss in an amount equal to the difference between the US Holder's basis in Shares and the amount realized on the disposition. Such gain or loss will generally be a long-term capital gain or loss if the US Holder holds the Shares for more than one year. A long-term capital gain realized by a US Holder that is an individual generally is subject to taxation at reduced rates.

Non-US Holders

A Non-US Holder will generally not be subject to US federal income tax in respect of gains realized on a sale or other disposition of Shares unless the gain is effectively connected with a trade or business of the Non-US Holder in the US.

Backup withholding tax and information reporting requirements

Dividends paid on, and proceeds from the sale or other disposition of, Shares paid to a US Holder generally may be subject to the information reporting requirements of the IR Code and may be subject to backup withholding unless the holder: (i) establishes that it is an exempt holder; or (ii) provides an accurate taxpayer identification number on a properly completed US Internal Revenue Service (IRS) Form W-9 and certifies that no loss of exemption from backup withholding has occurred. The amount of any backup withholding from a payment to a holder will be allowed as a credit against the US Holder's US federal income tax liability and may entitle such holder to a refund, provided that certain required information is furnished to the IRS.

A Non-US Holder may be required to comply with certification and identification procedures in order to establish its exemption from information reporting and backup withholding.

Listing details

Credit Suisse Group's shares are listed on the SIX Swiss Exchange under the symbol "CSGN". The Group's ADS are traded on the New York Stock Exchange (NYSE) under the symbol "CS".

The Group's shares are in registered form with a par value of CHF 0.04 per share.

Trading in our own shares

The Group buys and sells its own shares and derivatives on its own shares within its normal trading and market-making activities mainly through its UK and Swiss broker-dealer operations. The Group buys and sells its shares and derivatives on these shares to facilitate customer orders, to provide liquidity as a market maker and to hedge derivative instruments.

The net long or short position held by the Group's bank subsidiaries in the Group's own shares remains at non-material levels relative to the number of the Group's outstanding shares, due in part to Swiss Financial Market Supervisory Authority FINMA (FINMA) regulations requiring a 100% capital charge to the relevant legal entity for the entire net position in the Group's shares. In addition to FINMA rules, the Group's trading in its own shares in the Swiss market is subject to regulation under the Swiss Federal Act on Financial Market Infrastructure and Market Conduct in Securities and Derivatives Trading, the rules of the SIX Swiss Exchange and the European Exchange electronic exchange, and the Swiss Bankers Association Code of Conduct for Securities Dealers. Trading is also limited by the Group's risk management limits, internal capital allocation rules, balance sheet requirements, counterparty restrictions and other internal regulations and guidelines. Swiss law further limits the Group's ability to hold or repurchase its own shares.

The Group may from time to time place orders for its own shares to satisfy obligations under various employee and management incentive share plans, and potentially for shares to be used as payment in acquisitions. In addition, the Group may purchase shares with the intent of cancellation. In Switzerland, the purchase of shares for cancellation is typically done under a separate program from the repurchase of shares to be re-issued under employee and management incentive share plans.

- Refer to "Share purchases" in III – Treasury, Risk, Balance sheet and Off-balance sheet – Capital management for further information on trading in the Group's shares and shares purchases.

Property and equipment

Our principal executive offices, which we own, are located at Paradeplatz 8, Zurich, Switzerland. As of the end of 2022, we maintained 272 offices and branches worldwide, of which approximately 58% were located in Switzerland.

As of the end of 2022, approximately 15% of our worldwide offices and branches were owned directly by us, with the remainder being held under commercial leases. With respect to those held under commercial leases, 46% of the related lease commitments expire after 2027. The book value of the ten largest owned properties was approximately CHF 0.5 billion as of the end of 2022. None of our principal facilities are subject to mortgages or other security interests granted to secure indebtedness to financial institutions.

We believe that our current facilities are adequate for existing operations. Management regularly evaluates our operating facilities for suitability, market presence, renovation and maintenance.

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570 Other information

Appendix

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Selected five-year information

Selected information – Group

in / end of	2022	2021	2020	2019	2018
Condensed consolidated statements of operations (CHF million)					
Net revenues	14,921	22,696	22,389	22,484	20,920
Provision for credit losses	16	4,205	1,096	324	245
Total operating expenses	18,163	19,091	17,826	17,440	17,303
Income/(loss) before taxes	(3,258)	(600)	3,467	4,720	3,372
Income tax expense	4,048	1,026	801	1,295	1,361
Net income/(loss)	(7,306)	(1,626)	2,666	3,425	2,011
Net income/(loss) attributable to noncontrolling interests	(13)	24	(3)	6	(13)
Net income/(loss) attributable to shareholders	(7,293)	(1,650)	2,669	3,419	2,024
Earnings per share (CHF)					
Basic earnings/(loss) per share	(2.55)	(0.63)	1.02	1.27	0.74
Diluted earnings/(loss) per share	(2.55)	(0.63)	0.99	1.24	0.72
Consolidated balance sheet (CHF million)					
Total assets	531,358	755,833	818,965	801,829	785,789
Share capital	160	106	98	102	102
Shareholders' equity	45,129	43,954	42,677	43,644	43,922
Shares outstanding (million)					
Shares outstanding	3,941.3	2,569.7	2,406.1	2,436.2	2,550.6
Dividend per share (CHF)					
Dividend per share	0.05 ¹	0.10	0.10	0.2776	0.2625

¹ Proposal of the Board of Directors to the Annual General Meeting on April 4, 2023.

Selected information – Bank

in / end of	2022	2021	2020	2019	2018
Condensed consolidated statements of operations (CHF million)					
Net revenues	15,213	23,042	22,503	22,686	20,820
Provision for credit losses	15	4,209	1,092	324	245
Total operating expenses	18,529	18,924	18,200	17,969	17,719
Income/(loss) before taxes	(3,331)	(91)	3,211	4,393	2,856
Income tax expense	3,973	938	697	1,298	1,134
Net income/(loss)	(7,304)	(1,029)	2,514	3,095	1,722
Net income/(loss) attributable to noncontrolling interests	(31)	(100)	3	14	(7)
Net income/(loss) attributable to shareholders	(7,273)	(929)	2,511	3,081	1,729
Consolidated balance sheet (CHF million)					
Total assets	530,039	759,214	822,831	804,993	788,942
Share capital	4,400	4,400	4,400	4,400	4,400
Shareholders' equity	47,871	47,390	46,264	46,120	45,296
Number of shares outstanding (million)					
Number of shares outstanding	4,399.7	4,399.7	4,399.7	4,399.7	4,399.7

A-2 Selected five-year information

List of abbreviations

A		C (continued)	
ABO	Accumulated benefit obligation	CPR	Constant prepayment rate
ABS	Asset-backed securities	CRD	Capital Requirements Directive
ADS	American Depositary Shares	CRO	Chief Risk Officer
AEI	Automatic Exchange of Information	CRR	Capital Requirements Regulation
AES®	Advanced execution services	CRU	Capital Release Unit
AGM	Annual General Meeting	CSAM	Credit Suisse Asset Management (Schweiz) AG
AIG	American International Group, Inc.	CSI	Credit Suisse International
A-IRB	Advanced internal ratings-based approach	CSSEL	Credit Suisse Securities (Europe) Limited
AMA	Advanced measurement approach	CST	Credit Suisse Trust
AoA	Articles of Association	CVA	Credit valuation adjustment
AOCI	Accumulated other comprehensive income/(loss)	D	
Apollo	Apollo Global Management	DFS	Department of Financial Services
Archegos	Archegos Capital Management	DOJ	US Department of Justice
ARR	Alternative reference rate	E	
ASC	Accounting Standards Codification	EAD	Exposure at default
ASF	Available stable funding	EBITDA	Earnings before interest, taxes, depreciation and amortization
ASU	Accounting Standards Update	ECB	European Central Bank
B		EGM	Extraordinary General Meeting
BA	Bachelor of Arts	EIP	Energy Infrastructure Partners AG
BBSW	Bank Bill Swap Rate	EMEA	Europe, Middle East and Africa
BCBS	Basel Committee on Banking Supervision	EMIR	European Market Infrastructure Regulation
BEAT	Base Erosion and Anti-abuse Tax	ERM	Enterprise Risk Management
BIS	Bank for International Settlements	ESG	Environmental, Social and Governance
Board	Board of Directors	ETF	Exchange-traded funds
bp	basis points	EU	European Union
BS	Bachelor of Science	ExB RMC	Executive Board Risk Management Committee
BVG	Swiss Federal Law on Occupational Retirement, Survivors' and Disability Pension Plans	F	
C		FASB	Financial Accounting Standards Board
CALMC	Capital Allocation and Liability Management Committee	FATCA	Foreign Account Tax Compliance Act
CALRMC	Capital Allocation, Liability and Risk Management Committee	FCA	UK Financial Conduct Authority
CARMC	Capital Allocation and Risk Management Committee	FDIC	Federal Deposit Insurance Corporation
CCA	Contingent Capital Awards	Fed	US Federal Reserve
CCO	Chief Compliance Officer	FINMA	Swiss Financial Market Supervisory Authority FINMA
CDO	Collateralized debt obligation	FINRA	Financial Industry Regulatory Authority
CDS	Credit default swap	FMIA	Swiss Federal Act on Financial Market Infrastructure and Market Conduct in Securities and Derivatives Trading
CDX	Credit default swap index	FSA	UK Financial Services Authority
CECL	Current expected credit loss	FSB	Financial Stability Board
CEO	Chief Executive Officer	FSMA	Financial Services and Markets Act 2000
CET1	Common equity tier 1	FSTF	Financial Services Task Force
CETF	Client energy transition framework	FTQ Lite	Flight to quality lite
CFO	Chief Financial Officer	FVA	Funding valuation adjustments
CFTC	Commodity Futures Trading Commission	FX	Foreign exchange
Chairman	Chairman of the Board	G	
CLO	Collateralized loan obligation	G7	Group of seven leading industrial nations
CMBS	Commercial mortgage-backed securities	G20	Group of Twenty Finance Ministers and Central Bank Governors
CMi	Continuous Mortality Investigation	GAAP	Generally accepted accounting principles
CMS	Constant maturity swap	GCB	Group Conduct Board
CMT	Crisis Management Team	GCRC	Global Client Risk Committee
COF	Capital Opportunity Facility	GDP	Gross domestic product
COO	Chief Operating Officer	G-SIB	Global Systemically Important Bank
COSO	Committee of Sponsoring Organizations of the Treadway Commission	GTS	Global Trading Solutions
CP	Commercial paper	H	
		HQLA	High quality liquid assets
		HNWI	High-net-worth individuals

I	
IBOR	Interbank offered rate
IBCM	Investment Banking & Capital Markets
ICAAP	Internal capital adequacy assessment process
IFRS	International Financial Reporting Standards
IHC	US intermediate holding company
IMF	International Monetary Fund
IMPACT	Inclusion, meritocracy, partnership, accountability, client-focus & trust
IPO	Initial public offering
IRC	Incremental risk charge
IRRBB	Interest rate risk in the banking book
IRS	Internal Revenue Service
ISDA	International Swaps and Derivatives Association, Inc.
IT	Information technology
L	
LCR	Liquidity coverage ratio
LGD	Loss given default
LIBOR	London Interbank Offered Rate
LLM	Master of laws
LoD	Line of Defence
LTI	Long-term incentive
LTV	Loan-to-value
M	
M&A	Mergers and acquisitions
MA	Master of Arts
MACC	Model Approval and Control Committee
MBA	Master of Business Administration
MEF	Macroeconomic factor
MiFID I	Markets in Financial Instruments Directive
MiFID II	Revised Markets in Financial Instruments Directive
MPR	Market price of risk
MRTC	Material risk takers and controllers
MSRB	Municipal Securities Rulemaking Board
N	
Nasdaq	Nasdaq Stock Market
NAV	Net asset value
NCU	Non-Core Unit
NFRF	Non-financial risk framework
NOL	Net operating loss
NRV	Negative replacement value
NSFR	Net stable funding ratio
NYSE	New York Stock Exchange
O	
OCI	Other comprehensive income
OECD	Organisation for Economic Co-operation and Development
OFAC	Office of Foreign Assets Control
OGR	Organizational Guidelines and Regulations
OTC	Over-the-counter
P	
PBO	Projected benefit obligation
PD	Probability of default
PFG	Private Fund Group
PRA	Prudential Regulation Authority
PRV	Positive replacement value
PSA	Prepayment speed assumption

R	
RMBS	Residential mortgage-backed securities
RNIV	Risk not in VaR
ROE	Return on equity
RoTE	Return on tangible equity
RRP	Recovery and resolution plan
RSF	Required stable funding
RTSR	Relative total shareholder return
RWA	Risk-weighted assets
S	
SAPS	Self-administered pension scheme
SARON	Swiss Average Rate Overnight
SBTi	Science Based Targets initiative
SCFF	Supply chain finance funds
SDP	Strategic Delivery Plan
SEC	US Securities and Exchange Commission
SFTQ	Severe flight to quality
SMAC	Senior Management Approval Committee
SME	Small- and medium-sized enterprises
SNB	Swiss National Bank
SOFR	Secured Overnight Financing Rate
SOX	US Sarbanes-Oxley Act of 2002
SPAC	Special purpose acquisition company
SPE	Special purpose entity
SPG	Securitized Products Group
SPIA	Single premium immediate annuity
SRI	Sustainability, Research & Investment Solutions
SSAF	Sustainability Strategy, Advisory and Finance
STI	Short-term incentive
SWM	Stadtwerke München GmbH
T	
TCFD	Task Force on Climate-related Financial Disclosures
TLAC	Total loss-absorbing capacity
TRS	Total return swap
U	
UCA	Upfront cash awards
UHNW	Ultra-high-net-worth
UHNWI	Ultra-high-net-worth individuals
UK	United Kingdom
UN	United Nations
US	United States of America
US GAAP	US generally accepted accounting principles
V	
VaR	Value-at-risk
VARMC	Valuation Risk Management Committee
VDAX	Deutsche Börse AG DAX Volatility Index
VIE	Variable interest entity
VIX	Chicago Board of Options Exchange Market Volatility Index
Y	
York	York Capital Management

A-4 List of abbreviations

Glossary

A

Advanced execution services® (AES®) AES® is a suite of algorithmic trading strategies, tools and analytics operated by Credit Suisse to facilitate global equity trading. By employing algorithms to execute client orders and limit volatility, AES® helps institutions and hedge funds reduce market impact. Credit Suisse provides access to over 100 trading destinations in over 40 countries and six continents.

Advanced internal ratings-based approach (A-IRB) Under the A-IRB approach, risk weights are determined by using internal risk parameters. We have received approval from FINMA to use, and have fully implemented, the A-IRB approach whereby we provide our own estimates for probability of default (PD), loss given default (LGD) and exposure at default (EAD). We use the A-IRB approach to determine our institutional credit risk and most of our retail credit risk.

Advanced measurement approach (AMA) The AMA is used for measuring operational risk. The methodology is based upon the identification of a number of key risk scenarios that describe the major operational risks we face. Groups of senior staff review each scenario and discuss the likelihood of occurrence and the potential severity of loss. Internal and external loss data, along with certain business environment and internal control factors, such as self-assessment results and key risk indicators, are considered as part of this process. Based on the output from these meetings, we enter the scenario parameters into an operational risk model that generates a loss distribution from which the level of capital required to cover operational risk is determined. We have received approval from FINMA to use an internal model for the calculation of operational risk capital, which is aligned with the requirements of the AMA under the Basel framework.

Affluent and retail clients We define affluent and retail clients as individuals having assets under management below CHF 1 million.

American Depositary Shares (ADS) An ADS, which is evidenced by an American Depositary Receipt, is a negotiable certificate issued by a depository bank that represents all or part of an underlying share of a foreign-based company held in custody.

B

Backtesting Backtesting is one of the techniques used to assess the accuracy and performance of VaR models. Backtesting is used by regulators to assess the adequacy of regulatory capital held by a bank. It involves comparing of the results produced by the VaR model with the hypothetical trading revenues on the trading book. VaR models that experience less than five exceptions in a rolling 12-month period are considered by regulators to be classified in a defined “green zone”. The “green zone” corresponds to backtesting results that do not themselves suggest a problem with the quality or accuracy of a bank’s model.

Bank for International Settlements (BIS) The Bank for International Settlements (BIS) serves central banks in their pursuit of monetary and financial stability, fosters international cooperation in those areas and acts as a bank for central banks.

Basel III In December 2010, the Basel Committee on Banking Supervision (BCBS) issued the Basel III framework, which is a comprehensive set of reform measures to strengthen the regulation, supervision and risk management of the banking sector. These measures aim to improve the banking sector’s ability to absorb shocks arising from financial and economic stress, whatever the source, improve risk management and governance and strengthen banks’ transparency and disclosures. The phase-in period for Basel III was January 1, 2013 through January 1, 2019.

Basel Committee on Banking Supervision (BCBS) The Basel Committee on Banking Supervision (BCBS) provides a forum for regular cooperation on banking supervisory matters. Its objective is to enhance the understanding of key supervisory issues and improve the quality of banking supervision worldwide. It seeks to do so by exchanging information on national supervisory issues, approaches and techniques, with a view to promoting common understanding. At times, the BCBS uses this common understanding to develop guidelines and supervisory standards in areas where they are considered desirable. In this regard, the BCBS is best known for its international standards on capital adequacy, the Core Principles for Effective Banking Supervision and the Concordat on cross-border banking supervision.

C

Current expected credit losses (CECL) CECL is a FASB accounting standard which requires the measurement of all expected credit losses for financial instruments measured at amortized cost and held at the reporting date over the remaining contractual life (considering the effect of prepayments) based on historical experience, current conditions and reasonable and supportable forecasts. The CECL standard has replaced the previous incurred loss methodology for recognizing credit losses.

CET1 ratio CET1 ratio means the ratio (expressed as a percentage) of CET1 capital divided by risk-weighted assets.

Collateralized debt obligation (CDO) A CDO is a type of structured asset-backed security whose value and payments are derived from a portfolio of underlying fixed-income assets.

Commercial mortgage-backed securities (CMBS) CMBS are a type of mortgage-backed security that is secured by loans on commercial property and can provide liquidity to real estate investors and commercial lenders.

Commercial paper (CP) Commercial paper is an unsecured money-market security with a fixed maturity of 1 to 364 days, issued by large banks and corporations to raise funds to meet short term debt obligations.

Constant prepayment rate (CPR) CPR is a loan prepayment rate that is equal to the proportion of the principal of a pool of loans that is assumed to be paid off prematurely in each period. The calculation of this estimate is based on a number of factors such as historical prepayment rates for previous loans that are similar to ones in the pool and on future economic outlooks.

Credit default swap (CDS) A CDS is a contractual agreement in which the buyer of the swap pays a periodic fee in return for a contingent payment by the seller of the swap following a credit event of a reference entity. A credit event is commonly defined as bankruptcy, insolvency, receivership, material adverse restructuring of debt or failure to meet payment obligations when due.

Credit valuation adjustment (CVA) The CVA represents the market value of counterparty credit risk for uncollateralized OTC derivative instruments.

D

Debit valuation adjustment The debit valuation adjustment represents the market value of our own credit risk for uncollateralized OTC derivative instruments.

Derivatives Derivatives are financial instruments or contracts that meet all of the following three characteristics: (1) their value changes in response to changes in an underlying price, such as interest rate, security price, foreign exchange rate, credit rating/price or index; (2) they require no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors; and (3) their terms require or permit net settlement (US GAAP) or they settle at a future date (IFRS).

E

Exposure at default (EAD) The EAD represents the expected amount of credit exposure in the event of a default and reflects the current drawn exposure and an expectation regarding the future evolution of the credit exposure. For loan exposures, a credit conversion factor is applied to project the additional drawn amount. The credit conversion factor related to traded products such as derivatives is based on a simulation using statistical models.

F

Fair value The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

G

G7 The G7 is a group of finance ministers from seven industrialized nations: the US, UK, France, Germany, Italy, Canada and Japan.

G20 The G20 is a group of finance ministers and central bank governors from 19 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Türkiye, the UK and the US) and the EU.

H

Haircut The percentage by which an asset's market value is reduced for the purpose of calculating capital, margin requirements and collateral levels. This is used to provide a cushion when lending against collateral to account for possible adverse movements in the value of the collateral.

Higher Trigger Capital Amount The capital ratio write-down triggers for certain of our outstanding capital instruments take into account the fact that other outstanding capital instruments that contain relatively higher capital ratios as part of their trigger feature are expected to convert into equity or be written down prior to the write-down of such capital instruments. The amount of additional capital that is expected to be contributed by such conversion into equity or write-down is referred to as the Higher Trigger Capital Amount.

High-net-worth individuals (HNWI) We define high-net-worth individuals as individuals having assets under management in excess of CHF 1 million.

I

Incremental risk charge (IRC) The IRC represents an estimate of the issuer default and migration risk of positions in the trading book over a one-year capital horizon at a 99.9% confidence level, taking into account the liquidity horizons of individual positions. This includes sovereign debt, but excludes securitizations and correlation products.

L

Liquidity coverage ratio (LCR) The LCR aims to ensure that banks have a stock of unencumbered high-quality liquid assets available to meet liquidity needs for a 30-day time horizon under a severe stress scenario. The LCR is comprised of two components: the value of the stock of high quality liquid assets in stressed conditions and the total net cash outflows calculated according to specified scenario parameters. The ratio of liquid assets over net cash outflows should be at least 100%.

Lombard loan A loan granted against pledged collateral in the form of securities.

London Interbank Offered Rate (LIBOR) LIBOR is a daily reference rate based on the interest rates at which banks borrow unsecured funds from other banks in the London wholesale money market.

Loss given default (LGD) LGD parameters consider seniority, collateral, counterparty industry and, in certain cases, fair value markdowns. LGD estimates are based on an empirical analysis of historical loss rates and are calibrated to reflect time and cost of recovery as well as economic downturn conditions. For much of the loan portfolio of private banking, corporate and institutional businesses, the LGD is primarily dependent upon the type and amount of collateral pledged. For other retail credit risk, predominantly loans secured by financial collateral, pool LGDs differentiate between standard and higher risks, as well as domestic and foreign transactions. The credit approval and collateral monitoring processes are based on loan-to-value (LTV) limits. For mortgages (residential or commercial), recovery rates are differentiated by type of property.

M

Material risk takers and controllers (MRTC) MRTC are employees who, either individually or as a part of a group, are considered to have a potentially material impact on the Group's risk profile.

N

Negative replacement value (NRV) NRV represents the negative fair value of a derivative financial instrument at a given financial reporting date. A negative replacement value reflects the amount payable to the counterparty if the derivative transaction were to be settled at the reporting date, or alternatively, the cost at a given reporting date to close an open derivative position with a fully offsetting transaction.

Net stable funding ratio (NSFR) The NSFR is intended to ensure that banks maintain a structurally sound long-term funding profile beyond one year and is a complementary measure to the LCR. It is structured to ensure that illiquid assets are funded with an appropriate amount of stable long-term funds. The standard is defined as the ratio of available stable funding over the amount of required stable funding. The ratio should always be at least 100%.

N (continued)

Netting agreements Netting agreements are contracts between two parties where under certain circumstances, such as insolvency, bankruptcy or any other credit event, mutual claims from outstanding business transactions can be offset against each other. The inclusion of a legally binding netting agreement reduces the default risk from a gross to a net amount.

O

Over-the-counter (OTC) Over-the-counter securities and derivatives are not traded on an exchange but via private contracts between counterparties.

P

Position risk Component of the economic capital framework, which is used to assess, monitor and report risk exposures throughout the Group. Position risk is the level of unexpected loss in economic value on our portfolio of positions over a one-year horizon which is exceeded with a given small probability (1% for risk management purposes; 0.03% for capital management purposes).

Positive replacement value (PRV) PRV represents the positive fair value of a derivative financial instrument at a given reporting date. A positive replacement value reflects the amount receivable from the counterparty if the derivative transaction were to be settled at the reporting date, or alternatively, the cost at a given reporting date to enter into the exact same transaction for the residual term, if the existing counterparty should default.

Probability of default (PD) PD parameters capture the risk of a counterparty defaulting over a one-year time horizon. PD estimates are based on time-weighted averages of historical default rates by rating grade, with low-default-portfolio estimation techniques applied for higher quality rating grades. Each PD reflects the internal rating for the relevant obligor.

R

Regulatory VaR Regulatory VaR is a version of VaR that uses an exponential weighting technique that automatically increases VaR where recent short-term market volatility is greater than long-term volatility in the two-year dataset. Regulatory VaR uses an expected shortfall calculation based on average losses, and a ten-day holding period. This results in a more responsive VaR model, as the overall increases in market volatility are reflected almost immediately in the regulatory VaR model.

Repurchase agreements Repurchase agreements are securities sold under agreements to repurchase substantially identical securities. These transactions normally do not constitute economic sales and are therefore treated as collateralized financing transactions and are carried in the balance sheet at the amount of cash received (liability) and cash disbursed (asset), respectively.

Residential mortgage-backed securities (RMBS) RMBS are a type of mortgage-backed security composed of a wide array of different non-commercial mortgage debts. They securitize the mortgage payments of non-commercial real estate. Different residential mortgages with varying credit ratings are pooled together and sold in tranches to investors.

R (continued)

Reverse repurchase agreements Reverse repurchase agreements are purchases of securities under agreements to resell substantially identical securities. These transactions normally do not constitute economic sales and are therefore treated as collateralized financing transactions and are carried in the balance sheet at the amount of cash received (liability) and cash disbursed (asset), respectively.

Risk management VaR Risk management VaR is a version of VaR that uses an exponential weighting technique that automatically adjusts VaR where recent short-term market volatility differs from long-term volatility in the two-year dataset. Risk management VaR uses an expected shortfall calculation based on average losses, and a one-day holding period. This results in a more responsive VaR model, as the overall changes in market volatility are reflected almost immediately in the risk management VaR model.

Risk mitigation Risk mitigation refers to measures undertaken by the Group or the Bank to actively manage its risk exposure. For credit risk exposure, such measures would normally include utilizing credit hedges and collateral, such as cash and marketable securities. Credit hedges represent the notional exposure that can be transferred to other market counterparties, generally through the use of credit default swaps. In addition, risk mitigation also includes the active management of a loan portfolio by selling or sub-participating positions.

Risk not in VaR (RNIV) RNIV captures a variety of risks, such as certain basis risks, higher order risks and cross risks between asset classes, not adequately captured by the VaR model for example due to lack of sufficient or accurate risk or historical market data.

Risk-weighted assets (RWA) The value of the Group's assets weighted according to certain identified risks for compliance with regulatory provisions.

S

Stressed VaR Stressed VaR replicates a VaR calculation on the current portfolio of the Group or the Bank, taking into account a one-year observation period relating to significant financial stress; it helps reduce the pro-cyclicality of the minimum capital requirements for market risk.

Swiss Financial Market Supervisory Authority FINMA

(FINMA) FINMA, as an independent supervisory authority, protects creditors, investors and policy holders, ensuring the smooth functioning of the financial markets and preserving their reputation. In its role as state supervisory authority, FINMA acts as an oversight authority of banks, insurance companies, exchanges, securities dealers, collective investment schemes, distributors and insurance intermediaries. It is responsible for combating money laundering and, where necessary, conducts restructuring and bankruptcy proceedings and issues operating licenses for companies in the supervised sectors. Through its supervisory activities, it ensures that supervised institutions comply with the requisite laws, ordinances, directives and regulations and continues to fulfill the licensing requirements. FINMA also acts as a regulatory body; it participates in legislative procedures, issues its own ordinances and circulars where authorized to do so, and is responsible for the recognition of self-regulatory standards.

T

“Too Big to Fail” In 2011, the Swiss Parliament passed legislation relating to big banks. The legislation includes capital and liquidity requirements and rules regarding risk diversification and emergency plans designed to maintain systemically relevant functions even in the event of threatened insolvency.

Total loss-absorbing capacity (TLAC) TLAC is a regulatory requirement designed to ensure that Global Systemically Important Banks (G-SIBs) have the loss-absorbing and recapitalization capacity so that, in an immediately following resolution, critical functions can continue without requiring taxpayer support or threatening financial stability.

Total return swap (TRS) A TRS is a swap agreement in which one party makes payments based on a set rate, either fixed or variable, while the other party makes payments based on the return of an underlying asset, which includes both the income it generates and any capital gains. In total return swaps, the underlying asset, referred to as the reference asset, is usually an equity index, loans or bonds.

U

Ultra-high-net-worth individuals (UHNWI) Ultra-high-net-worth individuals have assets under management in excess of CHF 50 million or total wealth exceeding CHF 250 million.

V

Value-at-risk (VaR) VaR is a technique used to measure the potential loss in fair value of financial instruments based on a statistical analysis of historical price trends and volatilities. VaR as a concept is applicable for all financial risk types with adequate price histories; the use of VaR allows the comparison of risk across different businesses.

Investor information

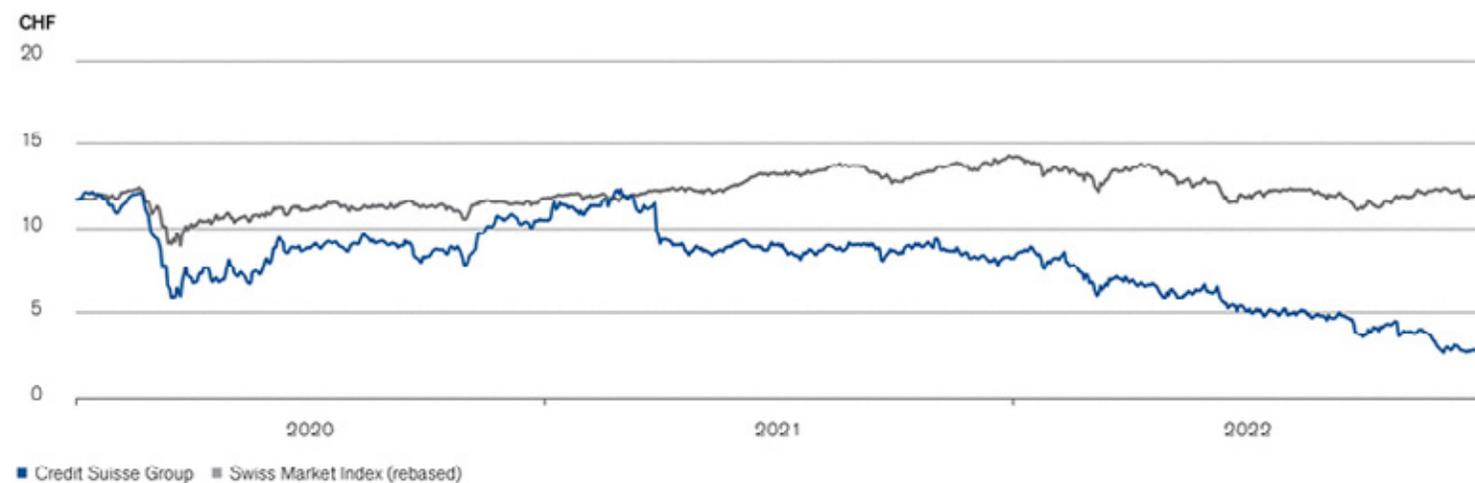
Share data

in / end of	2022	2021	2020
Share price (common shares, CHF)			
Average	5.55	10.09	9.96
Minimum	2.70	8.43	6.42
Maximum	8.93	13.24	13.27
End of period	<u>2.764</u>	<u>8.872</u>	<u>11.40</u>
Share price (American Depositary Shares, USD)			
Average	5.96	11.02	10.55
Minimum	2.99	9.14	6.48
Maximum	10.07	14.55	13.61
End of period	<u>3.04</u>	<u>9.64</u>	<u>12.80</u>
Market capitalization			
Market capitalization (CHF million)	<u>11,062</u>	<u>23,295</u>	<u>27,904</u>
Dividend per share (CHF)			
Dividend per share	<u>0.05¹</u>	<u>0.10²</u>	<u>0.10²</u>

1 Proposal of the Board of Directors to the Annual General Meeting on April 4, 2023.

2 Fifty percent paid out of capital contribution reserves and fifty percent paid out of retained earnings.

Share performance



Ticker symbols / stock exchange listings

	Common shares	ADS ¹
Ticker symbols		
SIX Financial Information	CSGN	—
New York Stock Exchange	—	CS
Bloomberg	CSGN SW	CS US
Reuters	CSGN.S	CS.N
Stock exchange listings		
Swiss security number	1213853	570660
ISIN number	CH0012138530	US2254011081
CUSIP number	—	225 401 108

1 One American Depositary Share (ADS) represents one common share.

Credit ratings and outlook

as of March 13, 2023	Short-term debt	Long-term debt	Outlook
Credit Suisse Group AG			
Moody's	—	Baa2	Negative
Standard & Poor's	—	BBB-	Stable
Fitch Ratings	F2	BBB	Negative
Rating and Investment Information	—	A+	Negative
Credit Suisse AG			
Moody's	P-2	A3	Negative
Standard & Poor's	A-2	A-	Stable
Fitch Ratings	F2	BBB+	Negative

Foreign currency translation rates

	End of			Average in		
	2022	2021	2020	2022	2021	2020
1 USD / 1 CHF	0.92	0.91	0.88	0.95	0.91	0.94
1 EUR / 1 CHF	0.99	1.03	1.08	1.00	1.08	1.07
1 GBP / 1 CHF	1.12	1.24	1.20	1.18	1.26	1.21
100 JPY / 1 CHF	0.70	0.79	0.85	0.73	0.83	0.88

A-10 Investor information

Financial calendar and contacts

Financial calendar

Annual General Meeting 2023	Tuesday, April 4, 2023
First quarter results 2023	Thursday, April 27, 2023
Second quarter results 2023	Thursday, July 27, 2023

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Financial information and printed copies

Annual reports	credit-suisse.com/annualreporting
Interim reports	credit-suisse.com/interimreporting

US share register and transfer agent

ADS depositary bank	The Bank of New York Mellon
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Overnight correspondence address	BNY Mellon Shareowner Services 50 Royall St., Suite 101 Canton, MA 02021
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Cautionary statement regarding forward-looking information

This report contains statements that constitute forward-looking statements. In addition, in the future we, and others on our behalf, may make statements that constitute forward-looking statements. Such forward-looking statements may include, without limitation, statements relating to the following:

- our plans, targets or goals;
- our future economic performance or prospects;
- the potential effect on our future performance of certain contingencies; and
- assumptions underlying any such statements.

Words such as “may,” “could,” “achieves,” “believes,” “anticipates,” “expects,” “intends” and “plans” and similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying such statements. We do not intend to update these forward-looking statements.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that predictions, forecasts, projections and other outcomes described or implied in forward-looking statements will not be achieved. We caution you that a number of important factors could cause results to differ materially from the plans, targets, goals, expectations, estimates and intentions expressed in such forward-looking statements. Additionally, many of these factors are beyond our control. These factors include, but are not limited to:

- the ability to maintain sufficient liquidity and access capital markets;
- market volatility, increases in inflation and interest rate fluctuations or developments affecting interest rate levels;
- the ongoing significant negative consequences, including reputational harm, of the Archegos and supply chain finance funds matters, as well as other recent events, and our ability to successfully resolve these matters;
- the impact of media reports and social media speculation about our business and its performance;
- the extent of outflows of deposits and assets or future net new asset generation across our divisions;
- our ability to improve our risk management procedures and policies and hedging strategies;
- the strength of the global economy in general and the strength of the economies of the countries in which we conduct our operations, in particular, but not limited to, the risk of negative impacts of COVID-19 on the global economy and financial markets, Russia’s invasion of Ukraine, the resulting sanctions from the US, EU, UK, Switzerland and other countries and the risk of continued slow economic recovery or downturn in the EU, the US or other developed countries or in emerging markets in 2023 and beyond;
- the emergence of widespread health emergencies, infectious diseases or pandemics, such as COVID-19, and the actions that may be taken by governmental authorities to contain the outbreak or to counter its impact;

- our ability to successfully implement the divestment of any non-core business;
- the future level of any impairments and write-downs resulting from strategy changes and their implementation;
- the ability of counterparties to meet their obligations to us and the adequacy of our allowance for credit losses;
- the effects of, and changes in, fiscal, monetary, exchange rate, trade and tax policies;
- the effects of currency fluctuations, including the related impact on our business, financial condition and results of operations due to moves in foreign exchange rates;
- geopolitical and diplomatic tensions, instabilities and conflicts, including war, civil unrest, terrorist activity, sanctions or other geopolitical events or escalations of hostilities, such as Russia’s invasion of Ukraine;
- political, social and environmental developments, including climate change and evolving ESG-related disclosure standards;
- the ability to appropriately address social, environmental and sustainability concerns that may arise from our business activities;
- the effects of, and the uncertainty arising from, the UK’s withdrawal from the EU;
- the possibility of foreign exchange controls, expropriation, nationalization or confiscation of assets in countries in which we conduct our operations;
- operational factors such as systems failure, human error, or the failure to implement procedures properly;
- the risk of cyber attacks, information or security breaches or technology failures on our reputation, business or operations, the risk of which is increased while large portions of our employees work remotely;
- the adverse resolution of litigation, regulatory proceedings and other contingencies;
- actions taken by regulators with respect to our business and practices and possible resulting changes to our business organization, practices and policies in countries in which we conduct our operations;
- the effects of changes in laws, regulations or accounting or tax standards, policies or practices in countries in which we conduct our operations;
- the discontinuation of LIBOR and other interbank offered rates and the transition to alternative reference rates;
- the potential effects of changes in our legal entity structure;
- competition or changes in our competitive position in geographic and business areas in which we conduct our operations;
- the ability to retain and recruit qualified personnel;
- the ability to protect our reputation and promote our brand;
- the ability to increase market share and control expenses;
- technological changes instituted by us, our counterparties or competitors;

- potential risks and uncertainties relating to the severity of impacts from the COVID-19 pandemic, including potential material adverse effects on our business, financial condition and results of operations;
- the direct and indirect impacts of deterioration or slow recovery in residential and commercial real estate markets;
- adverse rating actions by credit rating agencies in respect of us, sovereign issuers, structured credit products or other credit-related exposures;
- the ability to achieve our strategic initiatives, including those related to our targets, ambitions and goals, such as our financial ambitions as well as various goals and commitments to incorporate certain environmental, social and governance considerations into our business strategy, products, services and risk management processes;
- our ability to achieve our announced comprehensive new strategic direction for the Group and significant changes to its structure and organization;
- the timely development and acceptance of our new products and services and the perceived overall value of these products and services by users;
- acquisitions, including the ability to integrate acquired businesses successfully, and divestitures, including the ability to sell non-core assets; and
- other unforeseen or unexpected events and our success at managing these and the risks involved in the foregoing.

We caution you that the foregoing list of important factors is not exclusive. When evaluating forward-looking statements, you should carefully consider the foregoing factors and other uncertainties and events, including the information set forth in *I – Information on the company – Risk factors*.

A-12 Financial calendar and contacts

Production: Management Digital Data AG

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Credit Suisse Group AG

Articles of Association

Articles of Association of Credit Suisse Group AG

I. Corporate name, registered office, duration and purpose

Art. 1 Corporate name, registered office and duration

A stock corporation under the name Credit Suisse Group AG (Credit Suisse Group SA) (Credit Suisse Group Ltd.) (the “Company”) is established with its registered office in Zurich, Switzerland. Its duration is unlimited.

Art. 2 Purpose

- 1 The purpose of the Company is to hold direct or indirect interests in all types of businesses in Switzerland and abroad, in particular in the areas of banking, finance, asset management and insurance. The Company has the power to establish new businesses, acquire a majority or minority interest in existing businesses and provide related financing.
- 2 The Company has the power to acquire, mortgage and sell real estate properties, both in Switzerland and abroad.

II. Share capital and shares

Art. 3 Share capital and shares

- 1 The fully paid-in share capital amounts to CHF 160,086,322.48 and is divided into 4,002,158,062 registered shares with a par value of CHF 0.04 each.
- 2 Upon a resolution being passed by the Shareholders’ Meeting, registered shares may be converted into bearer shares.
- 3 The Company may issue its shares in the form of single certificates, global certificates or uncertificated securities. The Company may convert the shares it issued in one form into another form at any time and without the approval of shareholders. Shareholders have no right to demand that issued shares be converted into another form. Shareholders may, however, at any time request that the Company issue a certificate for the registered shares that they hold according to the Share Register.
- 4 The Company recognizes only one representative for each share.

Art. 4 Share Register and transfer of shares

- 1 The Company recognizes as a shareholder the person whose name is entered in the Share Register.
- 2 A person who has acquired registered shares will, upon application, be entered without limitation in the Share Register as having voting rights provided that he or she expressly states that he or she has acquired the shares concerned in his or her own name for his or her own account.
- 3 Any person not expressly stating in his or her application for registration that the shares concerned have been acquired for his or her own account (hereinafter “nominees”) may be entered for a maximum of 2% of the total outstanding share capital with voting rights in the Share Register. In excess of this limit, registered shares held by a nominee will only be granted voting rights if such nominee declares in writing that he or she is prepared to disclose the name, address and shareholding of any person for whose account he or she is holding 0.5% or more of the outstanding share capital. Art.10, Section 2 shall apply correspondingly to nominees who are related to one another through capital ownership or voting rights or have a common management or are otherwise interrelated.
- 4 The transfer restrictions apply regardless of the way and the form in which the registered shares are kept in the accounts, and regardless of the provisions applicable to transfers.

- 5 The transfer of intermediated securities based on the Company's shares, and the pledging of these intermediated securities as collateral, shall be based on the provisions of the Swiss Federal Intermediated Securities Act. Transfer or pledging as collateral by means of written assignment are not permitted.
- 6 The Board of Directors will issue the necessary directives to ensure that the aforementioned provisions are complied with.

III. Debt capital

Art. 5 Bond issues

The Company may issue bonds, with or without security, including warrants and convertible issues, and may guarantee such issues by its subsidiaries.

IV. The governing bodies of the Company

Art. 6 The governing bodies of the Company shall be the following:

1. The General Meeting of Shareholders ("Shareholders' Meeting");
2. The Board of Directors;
3. The Executive Board;
4. The Independent Auditors.

1. The Shareholders' Meeting

Art. 7 Authority and duty to call a Shareholders' Meeting

- 1 The Shareholders' Meeting shall ordinarily be called by the Board of Directors.
- 2 The ordinary Shareholders' Meeting shall take place annually within six months after the close of the business year.
- 3 Extraordinary Shareholders' Meetings shall take place as necessary. One or more shareholders whose combined holdings represent at least 10 percent of the share capital can also request that a Shareholders' Meeting be called.
- 4 Shareholders representing shares with a par value of CHF 40,000 may require that a particular item appear on the agenda of the Shareholders' Meeting.
- 5 The request to call a Shareholders' Meeting must be submitted in writing and at the same time shares of the Company representing at least 10 percent of the share capital are to be deposited. The request to include a particular item on the agenda of the Shareholders' Meeting, together with the relevant proposals, must be submitted in writing and at the same time shares of the Company with a par value of at least CHF 40,000 are to be deposited for safekeeping. The shares are to remain in safekeeping until the day after the Shareholders' Meeting.
- 6 The request to include a particular item on the agenda, together with the relevant proposals, must be submitted to the Board of Directors not later than 45 days before the date of the Shareholders' Meeting.

Art. 8 Powers

The Shareholders' Meeting has the following powers which may not be delegated:

1. amending the Articles of Association;
2. electing the Members of the Board of Directors, the Chairperson, and the Members of the Compensation Committee. Art. 15, Section 3 and Art. 20a, Section 3 shall be reserved;
3. electing the independent proxy. Art. 14a, Section 2 shall be reserved;
4. electing the Independent Auditors and Special Auditors;
5. approving the management report, the consolidated financial statements and the annual statutory financial statements;
6. determining the allocation of the disposable profit;
7. formally discharging the actions of the Members of the Board of Directors and the Executive Board;
8. approving the compensation of the Board of Directors and the Executive Board; and
9. passing resolutions on all matters which have been reserved to its authority by law or by these Articles of Association or which have been submitted to the Shareholders' Meeting by the Board of Directors.

Art. 8a Approval of the compensation of the Board of Directors

- 1 The Shareholders' Meeting approves on an annual basis the compensation of the Board of Directors in advance for the period up until the next ordinary Shareholders' Meeting.
- 2 The compensation may be paid partly in the form of participation rights in the Company. If so, the Board of Directors shall determine the conditions, including any disposal restrictions.
- 3 Members of the Board of Directors may also be paid compensation from other Group companies as long as this is included in the approved compensation as per Section 1.
- 4 If the Shareholders' Meeting refuses to approve the proposal of the Board of Directors pursuant to Section 1, the Board of Directors may submit a new proposal to a subsequent extraordinary Shareholders' Meeting or to the next ordinary Shareholders' Meeting.

Art. 8b Approval of the compensation of the Executive Board

- 1 The Shareholders' Meeting approves on an annual basis the compensation of the Executive Board as a maximum amount or as maximum partial amounts in advance or retroactively for the period described in the proposal of the Board of Directors.
- 2 Insofar as the compensation is approved in advance, the Shareholders' Meeting shall in addition hold an advisory vote on the compensation report for this period.
- 3 The compensation consists of a fixed component and a variable component. The variable component comprises both short-term incentive compensation elements (which may contain deferred compensation elements with a qualifying period of up to three years from the date of grant) and long-term incentive compensation elements (which may contain deferred compensation elements with a longer qualifying period of at least three years from the date of grant). The variable component is dependent upon the attainment of individual and collective, short-term and long-term performance targets, which the Board of Directors sets on a regular basis.
- 4 The compensation may be paid partly in the form of participation rights in the Company or in the form of derivatives based on such participation rights or other financial instruments.

- 5 Conditional and deferred compensation components should be factored into the compensation at their fair value at date of grant. The Board of Directors determines grant, vesting, blocking, exercise and forfeiture conditions; they may provide for continuation, acceleration or removal of vesting and exercise conditions, for payment or grant of compensation assuming target achievement or for forfeiture in the event of pre-determined events such as a termination of an employment or mandate agreement.
- 6 Members of the Executive Board may also receive compensation from other Group companies as long as this is included in the approved compensation as per Section 1.
- 7 If the Shareholders' Meeting refuses to approve the proposal of the Board of Directors pursuant to Section 1, the Board of Directors may submit a new proposal for approval to a subsequent extraordinary Shareholders' Meeting or to the next ordinary Shareholders' Meeting.

Art. 8c Reserve for changes to the Executive Board

- 1 If the Shareholders' Meeting has approved in advance a maximum amount for the full or partial compensation of the Executive Board, the Company may use an additional maximum 30% of this amount per compensation period during the relevant compensation periods for the full or partial compensation of persons who have been newly appointed to the Executive Board or promoted within the Executive Board.
- 2 The additional amount may only be used if the compensation of the Executive Board approved by the Shareholders' Meeting in advance proves insufficient for the compensation of the new or promoted Members in the period until the next vote of the Shareholders' Meeting.
- 3 Where the payment of compensation is concerned, the other provisions of the Articles of Association apply *mutatis mutandis*.

Art. 9 Notice of Shareholders' Meetings

- 1 Notice of the Shareholders' Meeting must be given at least 20 days before the Shareholders' Meeting takes place. Notice of the meeting is to be published in the Swiss Gazette of Commerce (Schweizerisches Handelsamtsblatt).
- 2 The notice of the meeting must include the items on the agenda, the proposals submitted by the Board of Directors and by shareholders who have required that a meeting be held or that a particular item be included on the agenda.
- 3 No resolutions can be passed on proposals of which due notice has not been given, with the exception of those concerning the calling of an extraordinary Shareholders' Meeting or the carrying out of a special audit.

Art. 10 Voting rights

- 1 Subject to the provisions of Art. 4, Section 3 every share carries one vote at the Shareholders' Meeting. However, except as set out in Sections 3-5 below, the shares for which a single shareholder can directly or indirectly exercise voting rights for his or her own shares or as a proxy may not exceed 2 percent of the total outstanding share capital.
- 2 For the purposes of the restrictions on voting rights as laid down in Section 1 above, legal entities, partnerships or groups of joint owners or other groups in which individuals or legal entities are related to one another through capital ownership or voting rights or have a common management or are otherwise interrelated shall be regarded as being a single shareholder. The same shall apply to individuals, legal entities or partnerships that act in concert (especially as a syndicate) with intent to evade the limitation on voting rights.
- 3 The restrictions on voting rights do not apply to the exercise of voting rights by the independent proxy; for the instructing shareholders Section 1 and Section 2 remain reserved.

- 4 Nor do the restrictions on voting rights apply to shares in respect of which the shareholder confirms to the Company in the application for registration that he or she has acquired the shares in his or her name for his or her own account and in respect of which the disclosure requirement set out in Section 6 below has been satisfied.
- 5 In addition, the restrictions on voting rights do not apply to shares which are registered in the name of a nominee, provided that this nominee furnishes the Company with the name, address and shareholding of the person(s) (as per definition in Section 2 above) for whose account he or she holds 0.5 percent or more of the total share capital outstanding at the time and for which he or she (or the beneficial owner, as appropriate) has satisfied the disclosure requirement set out in section 6 below. The Board of Directors has the right to conclude agreements with nominees concerning both their disclosure requirement and the exercise of voting rights.
- 6 The disclosure obligation must be discharged in accordance with Art. 120 of the Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading of 19 June 2015 and the relevant ordinances and regulations.
- 7 The Board of Directors shall issue regulations regarding the proof of share ownership which is necessary in order to obtain voting cards.

Art. 11 Chairperson, tellers, minutes taker

- 1 The Chairperson of the Board of Directors shall chair the Shareholders' Meeting; in his or her absence, a Vice-Chairperson or another member designated by the Board of Directors take the chair.
- 2 The Shareholders' Meeting shall elect by a show of hands the tellers to count the votes at the meeting. Members of the Board of Directors, the Independent Auditors and employees of the Company shall not be eligible to act as tellers.
- 3 The Board of Directors shall nominate a secretary to take the minutes.

Art. 12 Quorums

- 1 The Shareholders' Meeting may in principle pass resolutions without regard to the number of shareholders present at the Shareholders' Meeting or represented by proxy.
- 2 Representation of at least half of the share capital is required for:
 - conversion of registered shares into bearer shares;
 - amendments to Art. 4, Section 3
 - amendments to Art. 10, Sections 1-6
 - dissolution of the Company.
- 3 This Article is subject to the mandatory provisions of the law and other provisions of these articles of association.

Art. 13 Resolutions/required majorities

- 1 Resolutions and elections by the Shareholders' Meeting require the approval of an absolute majority of the votes represented at the Shareholders' Meeting, except as otherwise prescribed by mandatory provisions of law or by other provisions of these articles of association. In the case of an equality of votes, elections and resolutions shall be decided by the casting vote of the person chairing the Shareholders' Meeting.
- 2 The conversion of registered shares into bearer shares, the dissolution of the Company and amendments to Art. 4, Section 3 of these articles of association require the approval of at least three-quarters of the votes cast. Amendments to Art. 10, Sections 1-6 require the approval of at least seven-eighths of the votes cast.

- 3 The Chairperson may allow elections and ballots to be conducted by a show of hands, by written ballot or by electronic means. He or she has all the powers required to conduct the Shareholders' Meeting in an orderly fashion.

Art. 14 Minutes

The person chairing the Shareholders' Meeting and the minutes taker of the Shareholders' Meeting are to sign the minutes of the Shareholders' Meeting.

Art. 14a Independent proxy

- 1 The independent proxy is elected by the Shareholders' Meeting for a term of office lasting until the close of the next ordinary Shareholders' Meeting.
- 2 Should the office of the independent proxy become vacant, the Board of Directors shall appoint a replacement for the next Shareholders' Meeting.
- 3 Individual persons as well as legal entities or partnerships may stand for election; they shall also be eligible for re-election.
- 4 The Board of Directors shall regulate the electronic submission of power of attorney and instructions to the independent proxy.

2. The Board of Directors

Art. 15 Election and term of office

- 1 The Board of Directors shall consist of a minimum of seven Members.
- 2 The Chairperson and the other Members of the Board of Directors are elected individually by the Shareholders' Meeting for a term lasting until the close of the next ordinary Shareholders' Meeting; they shall also be eligible for re-election.
- 3 Should the office of the Chairperson become vacant, the Board of Directors shall from among its Members appoint a replacement for the remaining term of office.

Art. 16 Powers and responsibilities

- 1 The Board of Directors shall decide on all matters which have not been reserved for or conferred on another governing body of the Company by law by these articles of association or by other regulations.
- 2 The Board of Directors determines those who have signatory power and the nature of the signatory power required. A document signed on behalf of the Company is binding on the Company only when it carries the signatures of two authorized signatories.

Art. 17 Delegation of powers

The Board of Directors may delegate the management of the Company wholly or partly to committees of the Board of Directors, individual Members of the Board or to other natural persons, in accordance with the regulations governing the conduct of business of the Company, as long as this delegation of powers does not conflict with any mandatory statutory provisions.

Art. 18 Quorum/required majorities

- 1 A majority of the Members of the Board of Directors must be present in order to pass resolutions; there is no presence quorum requirement for resolutions on authorized capital increases, for resolutions on amendments and acknowledgements by the Board of Directors in connection with capital increases, or for the acknowledgement of an event triggering conversion of the conversion capital. For resolutions carried out by circular letter, a majority of the Members of the Board of Directors must cast their votes.
- 2 Resolutions of the Board of Directors require the approval of an absolute majority of the votes cast. In the case of an equality of votes, decisions shall be determined by the casting vote of the person chairing the meeting.

Art. 19 Minutes

Minutes shall be kept of the proceedings and resolutions of the Board of Directors. The minutes shall be signed by the person chairing the meeting and the secretary.

Art. 20 Compensation-related tasks of the Board of Directors

- 1 The Board of Directors shall submit the compensation of the Board of Directors and the compensation of the Executive Board as per Art. 8a and Art. 8b to the Shareholders' Meeting each year for approval. In its proposal for the compensation of the Executive Board as per Art. 8b, Section 1, the Board of Directors designates the period to which the approval is to relate.
- 2 The Board of Directors shall determine the compensation of the individual Members of the Board of Directors and the Executive Board within the framework of the overall amounts as per Art. 8a-8c.
- 3 The Board of Directors adopts the annual compensation report.
- 4 The Board of Directors shall issue an internal regulation governing the organization of the Compensation Committee.

Art. 20a Compensation Committee

- 1 The Compensation Committee shall consist of at least three Members of the Board of Directors.
- 2 The Members of the Compensation Committee are elected by the Shareholders' Meeting for a term of office lasting until the close of the next ordinary Shareholders' Meeting. They shall also be eligible for re-election.
- 3 If the office of a Member of the Compensation Committee should become vacant, the Board of Directors shall appoint a replacement from among its Members for the remaining term of office.
- 4 The Compensation Committee shall support the Board of Directors in the following tasks:
 - a. determination and regular revision of the compensation strategy and compensation guidelines of the Company, as well as the corresponding performance criteria;
 - b. preparation of proposals to the Shareholders' Meeting on the compensation of the Board of Directors and the Executive Board; and
 - c. preparation of the Compensation Report.

The Compensation Committee may also submit proposals and recommendations relating to other compensation matters to the Board of Directors.

- 5 The Board of Directors may assign other tasks and competencies to the Compensation Committee.

Art. 20b Mandates outside the Company

- 1 Each Member of the Board of Directors may assume no more than four other mandates in listed companies and no more than five other mandates in other legal entities.
- 2 The following mandates are exempt from this restriction:
 - a. mandates in legal entities that are controlled by the Company or that control the Company;
 - b. mandates in legal entities not belonging to the Group that are exercised at the request or order of the Company or one of its controlled legal entities; each Member of the Board of Directors may exercise a maximum of ten such mandates; and
 - c. honorary mandates in charitable legal entities; each Member of the Board of Directors may exercise a maximum of ten such mandates.
- 3 Mandates in the sense of Art. 20b are deemed to comprise activities in the most senior executive and management bodies of legal entities that are obliged to obtain an entry in the Commercial Register or a corresponding foreign register. The assumption of up to five mandates in different legal entities under common control is deemed to constitute one mandate.

Art. 20c Compensation agreements

- 1 The Company or its Group companies may conclude agreements with Members of the Board of Directors with respect to their mandate and compensation.
- 2 The duration of such agreements and their termination shall comply with the term of office as well as the prevailing legislation. Such contracts may not exceed the term of office as per Art. 15, Section 2.

Art. 20d Credit facilities and loans

The Company may grant individual credit facilities and loans to each Member of the Board of Directors up to a maximum of CHF 20,000,000 at market conditions.

3. The Executive Board

Art. 20e Appointment, powers

The Board of Directors appoints an Executive Board that assumes responsibility for managing and representing the Company in accordance with the regulations governing the conduct of business issued by the Board of Directors.

Art. 20f Number of permissible mandates outside the Company

- 1 Each Member of the Executive Board may assume no more than one other mandate in a listed company and no more than two other mandates in other legal entities.
- 2 The provisions of Art. 20b, Sections 2-3 shall apply analogously.

Art. 20g Compensation agreements

- 1 The agreements that form the basis for the compensation of Members of the Executive Board are open-ended, with a maximum notice period of 12 months.
- 2 The agreement of a post-contractual prohibition of competition is permissible as long as it is agreed for a maximum of one year and the corresponding compensation does not exceed the amount that the Member of the Executive Board has received as compensation in the twelve months prior to the termination of the employment contract with the Company.

Art. 20h Credit facilities and loans

The Company may grant individual credit facilities and loans to each Member of the Executive Board up to a maximum of CHF 20,000,000 at standard terms that apply in the financial sector.

4. The Independent Auditors and the Special Auditors

Art. 21 Appointment and duties

- 1 The Independent Auditors shall be elected by the Shareholders' Meeting for one year and shall be responsible for carrying out all functions and duties incumbent upon them by law.
- 2 The Special Auditors shall be elected by the Shareholders' Meeting for the term of one year and shall be responsible for the special audit reports in connection with qualified capital increases (Art. 652f CO).

V. Financial year and allocation of the net profit

Art. 22 Financial year

The Company's financial year shall be determined by the Board of Directors.

Art. 23 Allocation of disposable profit

The allocation of the disposable profit shall be made by the Shareholders' Meeting. The distributions of a dividend and the establishment and utilization of special reserves, if any, shall be decided by the Shareholders' Meeting in accordance with Art. 671 ff of the Swiss Code of Obligations.

VI. Dissolution and liquidation of the Company

Art. 24 Should the Company be dissolved, the Board of Directors shall carry out the liquidation unless the Shareholders' Meeting decides otherwise.

VII. Official notices and announcements

Art. 25 Publication

- 1 The Swiss Official Gazette of Commerce (Schweizerisches Handelsamtsblatt) shall be the official medium for publication of the Company's notices and announcements.
- 2 Notices and announcements to the shareholders shall be made in the Swiss Official Gazette of Commerce (Schweizerisches Handelsamtsblatt), insofar as the law does not prescribe some other manner of publication.

VIII. Transitional regulations

Art. 26 Conditional capital

- 1 The Company's share capital pursuant to Art. 3 of the Articles of Association shall be increased by an amount not exceeding CHF 12 000 000 through the issue of a maximum of

300 000 000 registered shares, to be fully paid in, each with a par value of CHF 0.04 through the voluntary or compulsory exercise of conversion rights and/or warrants granted in connection with bonds or other financial market instruments of Credit Suisse Group AG, or any of its Group companies, or through compulsory conversion of contingent convertible bonds (CoCos) or other financial market instruments of Credit Suisse Group AG, or any of its Group companies, that allow for contingent compulsory conversion into shares of the Company.

Shareholders' subscription rights are excluded. Holders of financial market instruments with conversion features and/or of warrants are entitled to subscribe to the new shares. The Board of Directors fixes the conversion/warrant conditions.

The acquisition of shares through the exercise of conversion rights and/or warrants, or through the conversion of financial market instruments with conversion features, and any subsequent transfer of the shares are subject to the restrictions set out under Art. 4 of these Articles of Association.

- 2 Contingent capital pursuant to Art. 26 of the Articles of Association is made available, subject to para. 3, exclusively for the purpose of increasing share capital through the conversion of bonds or other financial market instruments of Credit Suisse Group AG, or any of its Group companies, that allow for contingent compulsory conversion into the Company's shares and that are issued in order to fulfil or maintain compliance with regulatory requirements of the Company and/or any of its Group companies (contingent convertible bonds).

The Board of Directors is authorized when issuing such contingent convertible bonds to exclude shareholders' preferential subscription rights if these bonds are issued on the national or international capital markets (including private placements with selected strategic investors).

If preferential subscription rights are restricted or excluded by resolution of the Board of Directors when contingent convertible bonds are issued:

- (i) the contingent convertible bonds must be issued at prevailing market conditions,
- (ii) the setting of the issue price of the new shares must take due account of the stock market price of the shares and/or comparable instruments priced by the market at the time of issue or time of conversion, and
- (iii) conditional conversion features may remain in place indefinitely.

- 3 Deleted

Art. 26a Deleted

Art. 26b Deleted

Art. 26c Conversion capital

- 1 The Company's share capital pursuant to Art. 3 of the Articles of Association shall be increased by an amount not exceeding CHF 6,000,000 through the issue of a maximum of 150,000,000 registered shares, to be fully paid in, each with a par value of CHF 0.04, through the compulsory conversion upon occurrence of the trigger event of claims arising out of contingent convertible bonds (CoCos) of Credit Suisse Group AG or any of its Group companies, or of other financial market instruments of Credit Suisse Group AG or any of its Group companies, that provide for a contingent or unconditional compulsory conversion into shares of the Company.
- 2 Shareholders' preemptive rights are excluded. Holders of financial market instruments with conversion features are entitled to subscribe to the new shares.
- 3 Shareholders' preferential subscription rights with regard to financial market instruments with conversion features will be granted. If a quick placement of contingent convertible bonds (CoCos) in large tranches is required, the Board of Directors is authorized to exclude shareholders' preferential subscription rights. In such circumstances, these contingent convertible bonds (CoCos) must be issued at prevailing market conditions.

- 4 The Board of Directors determines the issue price of the new shares taking due account of the stock market price of the shares and/or comparable instruments.
- 5 The acquisition of shares through the conversion of financial market instruments with conversion features, and any subsequent transfer of the shares are subject to the restrictions set out under Art. 4 of these Articles of Association.

Art. 27 Authorized capital

- 1 The Board of Directors is authorized, at any time until April 29, 2024, to increase the share capital, as per Art. 3 of the Articles of Association to a maximum of CHF 5,000,000 through the issuance of a maximum of 125,000,000 registered shares, to be fully paid up, each with a par value of CHF 0.04. Increases by underwriting as well as partial increases are permissible. The issue price, the time of dividend entitlement, and the type of contribution will be determined by the Board of Directors. Upon acquisition, the new shares will be subject to the transfer restrictions pursuant to Art. 4 of the Articles of Association.
- 2 The Board of Directors is authorized to exclude shareholders' subscription rights in favor of third parties if the new registered shares are used for (a) the acquisition of companies, segments of companies or participations in the banking, finance, asset management or insurance industries through an exchange of shares or (b) the financing/refinancing of the acquisition of companies, segments of companies or participations in these industries, or new investment plans. If commitments to service convertible bonds or bonds with warrants are assumed in connection with company takeovers or investment plans, the Board of Directors is authorized, for the purpose of fulfilling delivery commitments under such bonds, to issue new shares excluding the subscription rights of shareholders.
- 3 The Board of Directors may allow subscription rights that are not exercised to expire without compensation, or it may sell the subscription rights or the registered shares for which they were granted at market conditions on the market or otherwise use them in the interest of the Company.

Art. 27a Deleted

Art. 28 Deleted

Art. 28a Deleted

Art. 28b Deleted

Art. 28c Deleted

Art. 28d Deleted

Art. 28e Deleted

Art. 28f Deleted

Art. 28g Deleted

Art. 29 Deleted

Art. 30 Deleted

The above text is a translation of the original German articles of association (Statuten) which constitute the definitive text and are binding in law.

Zurich, December 7, 2022

CREDIT SUISSE GROUP AG

Paradeplatz 8

CH-8070 Zurich

Switzerland

www.credit-suisse.com

Organizational Guidelines and Regulations

Credit Suisse Group AG Credit Suisse AG

OGR of Credit Suisse Group AG and Credit Suisse AG

Valid as of January 27, 2023.

This OGR was approved by the Board of Directors of Credit Suisse Group AG and Credit Suisse AG on January 27, 2023 and by FINMA on January 31, 2023.

ABBREVIATIONS AND DEFINITIONS

PREAMBLE

- Corporate governance
- Group
- CSG
- Governance principles
- Business
- Group structure
- Division Wealth Management
- Division Investment Bank
- Division Swiss Bank
- Division Asset Management
- Capital Release Unit

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Abbreviations and definitions

AC Audit Committee

AGM Annual General Meeting

AM Division Asset Management

ANL Analyst

AoA Articles of Association

APAC Region Asia Pacific

ASO Associate

AVP Assistant Vice President

BCM Business Continuity Management

BoD Board of Directors

CALMC Capital Allocation and Liability Management Committee

CALRMC Capital Allocation, Liability and Risk Management Committee

CC Compensation Committee

CCO Chief Compliance Officer

CEO Chief Executive Officer

CFCCC Conduct and Financial Crime Control Committee

CFO Chief Financial Officer

Chairman Chairman of the BoD of CSG and CS

COO Chief Operating Officer

Corporate The areas of responsibility allocated to the CFO, COO, GC,
Functions CRO, CCO, CTOO and Global Head of People

CRM Credit Risk Management

CRO Chief Risk Officer

CRU Capital Release Unit

CS Credit Suisse AG

CS AG Parent Credit Suisse AG incl. its branches and representative offices, but not its directly and indirectly held subsidiaries

CSG Credit Suisse Group AG

CTOO Chief Technology and Operations Officer

DIR Director

Divisional Divisional Chief Compliance Officers

CCOs

Divisions Wealth Management; Investment Bank; Swiss Bank;

Asset Management

DTTC Digital Transformation and Technology Committee

EMEA Region Europe, Middle East, and Africa

ExB Executive Board

ExB RMC ExB Risk Management Committee

FINMA Swiss Financial Market Supervisory Authority FINMA

GC General Counsel

GCB Group Conduct Board

GNC Governance and Nominations Committee

Group CSG and all its direct and indirect subsidiaries

IB Division Investment Bank

ICS Internal Control System

IT Information Technology

Major Credit Suisse (Schweiz) AG; Credit Suisse International;

Subsidiary Credit Suisse Holdings (USA), Inc.

MC Management Committee

MDA Managing Director Senior Advisor

MDR Managing Director

NCU Non-Core Unit

OGR Organizational Guidelines and Regulations

RC Risk Committee

Regional CEO Chief Executive Officer of a Region

Regional MC Management Committee of a Region

Regions Switzerland; EMEA; APAC; Americas

RMC Divisional Risk Management Committee

RPSC Risk Processes and Standards Committee

RWA Risk Weighted Assets

SAC Sustainability Advisory Committee

SB Division Swiss Bank

SOX United States Sarbanes-Oxley Act of 2002

VaR Value-at-Risk

VARMC Valuation Risk Management Committee

VP Vice President

WM Division Wealth Management

Notes:

- The titles and functions used in this document apply to both genders.
- The German version of these Regulations shall prevail in an event of any conflict of interpretation.

Preamble

Corporate governance

Together with the Articles of Association, the Code of Conduct, the BoD and Committee Charters, and the Compensation Policy, the OGR defines the corporate governance guidelines of the Group. These form the basis for effective and efficient corporate governance of the Group.

Group

The Group consists of CSG and all its direct and indirect subsidiaries, which together form one economic unit.

CSG

CSG is a holding company domiciled in Zurich, Switzerland. Its statutory purpose is to hold direct or indirect interest in all types of businesses in Switzerland and abroad, in particular in the areas of banking, finance, asset management and insurance. CSG sets standards for the Group to allow for an efficient and harmonized steering of the Group.

Governance principles

The governance of the Group is based on the principles of an integrated oversight and management structure with global scope. In particular, as an organization active in the financial services industry, Swiss regulatory principles of consolidated supervision apply to the Group governance and organization. Corporate bodies and officers are, subject to applicable local laws, regulations and best practice standards, bound to ensure transparency and collaboration throughout the Group, in particular through the appropriate flow of information and cooperation within and across all businesses and organizational structures. In addition, it is an important principle that conflicting interests shall, to the extent possible, be avoided, disclosed and aligned.

Business

The Group is engaged in the banking business, which is primarily performed through CS and its Major Subsidiaries. CS is domiciled in Zurich, Switzerland. The statutory purpose is the operation of a bank, and its scope of operations extends to all types of banking, financial, advisory, service, and trading activities in Switzerland and abroad. CS and its subsidiaries are provided with infrastructure and other services through the service company Credit Suisse Services AG, Switzerland.

Group structure

The Group is structured into four Divisions (Wealth Management; Investment Bank; Swiss Bank; and Asset Management), four geographic Regions (Switzerland; EMEA; APAC; and Americas) and Corporate Functions. In addition, there is a CRU for the purposes of releasing capital from non-core businesses. The Regions reinforce the Group's integrated model of global businesses and support the Divisions and Corporate Functions across the various businesses, in particular in terms of market, client and talent development. In addition, the Regions oversee the legal entities, maintain the relationship with the regulators and ensure a robust risk-based control environment. The Corporate Functions provide products, infrastructure and services to the Divisions and Regions, as well as perform control activities independent from the Divisions and Regions. The Divisions and Regions coordinate their activities in collaboration with the Corporate Functions where appropriate.

Division Wealth Management

WM provides private banking and wealth management capabilities to clients globally (except United States of America).

Division Investment Bank

IB offers a broad range of financial products and services focused on client-driven businesses and also supports WM and its clients.

Financial products and services include global securities sales, trading and execution, capital raising and advisory services for clients such as financial institutions, corporations, governments, sovereigns, ultra-high-net-worth and institutional investors, including pension funds and hedge funds, financial sponsors and private individuals around the world.

Division Swiss Bank

SB provides domestic personal & business clients, private clients, corporate and institutional banking capabilities to clients in Switzerland.

Division Asset Management

AM provides investment solutions and services globally to a broad range of clients, including pension funds, governments, foundations and endowments, corporations and individuals.

Capital Release Unit

CRU comprises a NCU and the Group's residual Securitized Products business. The NCU's purpose is to release capital through the wind-down of non-strategic, low return and higher-risk business.

I. Introduction

1. Scope and content

- 1.1 The OGR establishes the duties and responsibilities of the BoD and its committees, the Chairman, the CEO, the ExB, and the ExB committees, as well as certain executive functions of the Group. It further establishes the duties and responsibilities of the Corporate Functions, the Divisional CEOs, the Divisional MCs, the Divisional RMCs, the Regional CEOs, the Regional MCs, and Internal Audit.
- 1.2 The OGR shall be applicable to CSG and CS. As long as the BoDs and ExBs of CSG and CS are mainly composed of the same persons, the meetings of the BoDs respectively ExBs shall be held for both companies simultaneously and with the same agenda, and the minutes of these meetings shall reflect the decisions taken for both companies, except for specific items which are different for each company (e.g. statutory financial statements, preparation of shareholder meetings). The same principle applies to the activities and meetings of the BoD and ExB committees.
- 1.3 To the extent permitted by local law and regulatory guidelines, the organizational regulations of the other direct and indirect subsidiaries and other enterprises owned or controlled by CSG shall reflect the same principles and rules as stated in this OGR.
- 1.4 CSG controls directly or indirectly all of its subsidiaries and sets standards for the Group to allow for an efficient and harmonized steering of the Group. Notwithstanding this, the legal independence of all subsidiaries and the provisions of applicable local laws, rules and regulations relating to them must be observed to the extent legally required. Each subsidiary may establish additional separate regulations to regulate business specific to such entity.
- 1.5 Governance bodies and officers are, subject to applicable local laws, rules and regulations, bound to ensure transparency and collaboration within the Group. Governance bodies and officers may have multiple responsibilities and reporting lines within the Group.
- 1.6 The responsibilities and authorities set out in these regulations including the annexes may only be delegated if expressly permitted herein or with the explicit approval or ratification by the BoD for a specific transaction or activity.
- 1.7 Notwithstanding any delegation of authority or approval process provided for in these regulations, no person shall participate in the approval, execution or implementation of any transaction (including the opening, closing or managing of a client's account) or otherwise have any responsibility for or role in the execution or implementation of any such transaction, if such participation, responsibility or role would cause such person or any entity within the Group to violate any law or regulation to which such person or entity is subject.
- 1.8 CSG may allocate full management responsibility over its directly held subsidiaries to CS. The ExB shall decide to which extent they shall be integrated in CS's management processes.

2. Approval procedures for urgent business matters

- 2.1 Should immediate action be required to ensure the conclusion of an urgent business matter, which lies in the authority of the BoD, provided that the BoD is not in a position to act in time (e.g. lack of a quorum) and there is no clear indication that the BoD would not approve the respective proposal, the matter may as an exception be approved by the Chairman. To the extent possible, available BoD members shall be consulted.
- 2.2 Should immediate action be required to ensure the conclusion of an urgent business matter which lies in the authority of a particular body or executive function, provided that the authorized body or executive function is not in a position to act in time and there is no clear indication that the business matter contains excessive risks or the authorized body or executive function would not approve the respective business matter, and there are no other instructions from the CEO or the responsible ExB member, the respective business matter may as an exception be approved by the body or executive function one level below the authorized body or executive function. In any event, the CEO or the responsible ExB member, to the extent possible, must be consulted.
- 2.3 If the procedure outlined in section 2.1 and 2.2 is applied, the BoD or the authorized body or executive function (as applicable) must be advised of such transaction or business matter at the earliest opportunity.

II. Board of Directors

3. Organization

3.1 The BoD shall consist of at least seven members. In this regard, the BoD considers the principle that the BoD should be of an appropriate size to ensure a qualified composition of the Committees on the one hand and an efficient decision making process on the other.

The BoD shall consist of at least a majority of independent directors as determined by the BoD taking into account the factors set forth below, the charters of the committees of the BoD and any applicable laws and regulations, in particular the SIX Exchange Directive on Information relating to Corporate Governance, the Swiss Code of Best Practice, the New York Stock Exchange Corporate Governance Listing Standards and the SOX rules.

3.2 In general, a director is considered independent, if he

- is not, and has not been for the past three years, employed as an ExB member at CSG or any of its subsidiaries or in another significant function at the Group;
- is not, and has not been for the past three years, an employee or affiliate of CSG's external auditor;
- does not, according to the BoD's assessment, maintain a material direct or indirect business relationship with CSG or any of its subsidiaries which causes a conflict of interest due to its nature or extent;
- is not, or has not been for the past three years, part of an interlocking directorate in which an ExB member serves on the compensation committee of another company that employs the BoD member.

BoD members with immediate family members who would not qualify as independent according to the above listed criteria shall be subject to a three-year cooling-off period for purposes of determining their independence after fulfilment of the independence criteria by the immediate family member.

3.3 The BoD shall discharge its responsibilities as a joint board or through committees elected by the AGM or appointed by the BoD respectively from among its members.

3.4 The BoD proposes to the AGM the election of the Chairman and appoints one or more vice-chairs and the chairs of the committees of the BoD from among its members for a term until the end of the next AGM.

3.5 The BoD may appoint a Lead Independent Director. If the Chairman is deemed non-independent by the BoD, the BoD must appoint a Lead Independent Director.

The Lead Independent Director primarily supports the Chairman in respect of the work of the BoD, mediates in cases of conflicts between the Chairman and the BoD and leads the performance assessment process of the Chairman.

The Lead Independent Director may convene for meetings without the Chairman being present.

3.6 The BoD shall designate one or more Secretaries who need not be a member of the BoD.

3.7 A member of the BoD shall generally retire at the AGM of the year in which he has been serving on the BoD for 12 years. Under certain circumstances, the BoD may extend the limit of terms of office for a particular member of the BoD for a maximum of three years.

3.8 Otherwise, the BoD shall organize itself.

4. Chairman

- 4.1 The Chairman – or in his absence one of the vice-chairs – presides over the meetings of the BoD. The Chairman shall prepare an agenda in advance of each meeting in coordination with the CEO.
- 4.2 The Chairman co-ordinates the work of the BoD and the committees and ensures that the BoD members are provided with timely information relevant for appropriately performing their duties and responsibilities.
- 4.3 The Chairman leads the preparations of the AGM and oversees the implementation of the resolutions taken by shareholders.
- 4.4 The Chairman challenges and supports the CEO and the ExB in developing the strategic business plans and financial objectives of the Group. The Chairman is also actively involved in establishing succession plans for the CEO and other key management positions. Within the scope of his duties of overall direction and supervision, the Chairman may attend meetings of the ExB, however not on a regular basis, but has no voting rights.
- 4.5 The Chairman represents the Group and the BoD to shareholders, clients, employees, and other stakeholders.
- 4.6 The Chairman is supported by the Chairman's Office whose composition, duties and responsibilities he determines as deemed appropriate.

5. Responsibilities and authorities

- 5.1 The BoD shall be responsible for the overall direction, supervision and control of CSG, CS and its management. In particular, the members of the BoD shall jointly discharge the following actions:
 - 5.1.1 determine the principal organization and governance of the Group;
 - 5.1.2 establish general accounting, financial control and planning principles and policies;
 - 5.1.3 prepare and approve the annual report, annual financial statements and the agenda of the AGM including the proposal by the BoD;
 - 5.1.4 appoint or dismiss the CEO and the members of the ExB and grant them collective signing authority, exercisable jointly by two, for CSG and CS;
 - 5.1.5 appoint or dismiss the Head of Internal Audit as well as appoint the regulatory auditor upon proposal by the AC;
 - 5.1.6 approve the principles for the business policy, the objectives, the strategy, the annual business and financial plans including the principal risk management strategy for the business activities;
 - 5.1.7 approve the risk management framework, annual risk appetite and the overall risk limits, including appetites for the strategic risk objectives, as well as specific appetites covering financial and non-financial risk;
 - 5.1.8 approve the capital and liquidity planning, the liquidity risk tolerances, the liquidity management strategies and key liquidity policies including the Contingency Funding Plan;
 - 5.1.9 approve country risk appetites upon proposal by the RC if not otherwise delegated (see annex A II);

- 5.1.10 perform and document a systematic risk analysis as the basis for an appropriate ICS and regularly review its appropriateness and efficiency;
- 5.1.11 supervise the implementation of appropriate processes and measures designed to ensure that employees on all levels are aware of and understand their responsibilities and tasks with regard to ICS processes;
- 5.1.12 approve the compensation principles, the Compensation Policy and key elements of management and employee compensation plans and amendments thereto and of significant fringe benefit or welfare plans;
- 5.1.13 set the overall amounts of compensation of the BoD and the ExB in accordance with Art. 20 Para. 1 of the AoA of CSG;
- 5.1.14 set the compensation of the individual BoD members, the CEO, and individual ExB members within the framework of the overall amounts that apply as per Art. 20 Para. 2 of the AoA of CSG;
- 5.1.15 approve the overall variable compensation pool and the key sub-pools;
- 5.1.16 appoint or dismiss the chair and the members of the BoD of the Major Subsidiaries and other subsidiaries of strategic importance of the Group and approve their remuneration, subject to local law and regulations. Guidelines for the nomination and the remuneration process shall be set forth in a policy;
- 5.1.17 approve the Recovery and Resolution Plans of the Group and the Major Subsidiaries in accordance with regulatory requirements;
- 5.1.18 approve actions and transactions and receive reports in accordance with Annex A.

6. Monitoring, access to information, reports

- 6.1 The BoD shall monitor that the CEO and the ExB pursue the business policy and strategy effectively and in accordance with all applicable laws, the AoA, the Code of Conduct and all additional internal regulations, and ensure compliance with applicable laws, rules and regulations.
- 6.2 The members of the BoD shall have access to all information concerning the Group as far as necessary to fulfil their duties as a BoD member. The Chairman approves requests made by a member of the BoD to review internal documents outside a BoD or committee meeting. BoD members with functional duties may review any internal documents at any time without the approval of the Chairman, if needed to fulfil their functional duties.
- 6.3 The BoD shall receive the following reports:
 - 6.3.1 risk reports at least on a quarterly basis providing an overview on key changes in the risk profile;
 - 6.3.2 monthly financial reports providing an overview on the financial performance (overall and on a divisional and regional basis), liquidity and capital adequacy;
 - 6.3.3 regulatory reports, including the quarterly large exposure report, the annual Long Form Report issued by the external auditor, and reports on significant other regulatory issues as soon as practicable;
 - 6.3.4 annual Comprehensive Auditor's Report issued by the external auditor providing a summary of findings from the audits of the consolidated financial statements of CSG and CS;
 - 6.3.5 annual Compliance Report, ICS Report, and Governance Report (including report on compliance with principles of consolidated supervision);

- 6.3.6 periodic reports on significant human resources matters;
- 6.3.7 other reports on material extraordinary events and actions taken as soon as practicable;
- 6.3.8 all information of Major Subsidiaries (e.g. minutes of the BoD, reports and other information prepared for management purposes).
- 6.4 The Chairman may request additional reports as deemed appropriate.

7. Committees

- 7.1 The BoD establishes the following regular committees composed by the members of the BoD and approves their charters:
 - the Governance and Nominations Committee
 - the Audit Committee
 - the Compensation Committee
 - the Risk Committee
 - the Conduct and Financial Crime Control Committee
 - the Digital Transformation and Technology Committee

The BoD may establish such other committees with such other charters as the BoD deems appropriate.

- 7.2 The committees shall consist of not less than three members and generally no more than half of the total number of BoD members.
- 7.3 With the exception of the CC, the members of the committees are appointed by the BoD at its constitutive meeting for a term until the end of the next AGM. Should the office of a member of a committee become vacant, the BoD may appoint a replacement from among its members for the remaining term of office. The committees shall organize themselves according to their charters.
- 7.4 The members of the CC are elected individually by the AGM for a term until the end of the next AGM. Should the office of a member of the CC become vacant, the BoD shall appoint a replacement from among its members for the remaining term of office. The CC shall organize itself according to its charter.
- 7.5 The chairs of the committees shall regularly inform the BoD on material matters discussed at the committee meetings.

8. Governance and Nominations Committee

- 8.1 The GNC shall generally consist of the Chairman, the Vice-Chair(s), the Lead Independent Director, the chairs of selected BoD committees and may also include additional BoD members. The GNC may include non-independent BoD members, however the majority of the members must qualify as independent. It shall establish its own charter to be submitted to the BoD for approval.
- 8.2 The GNC shall, in particular, have the following responsibilities:
 - 8.2.1 act as counselor to the Chairman and facilitate the dialogue between the members of the BoD and the Chairman;

- 8.2.2 discuss with the CEO and assess any significant appointment proposal to be submitted to the BoD for approval, in particular appointments to the ExB and the appointment of the head of Internal Audit;
- 8.2.3 develop criteria and assess candidates for a BoD membership on the basis of a requirements profile drawn up by the GNC. The requirements profile for BoD candidates takes into account all applicable laws and provisions as well as aspects relevant for ensuring an appropriate degree of diversity. The GNC reviews both internal and external proposals and submits potential candidates to the BoD for proposal to the AGM;
- 8.2.4 ensure the maintenance of high standards of corporate governance and make proposals to the BoD on corporate governance issues, in particular BoD member independence, the adherence to corporate governance provisions applicable to individual BoD members and BoD committee composition.

9. Audit Committee

- 9.1 All members of the AC need to be independent in the meaning of article 3.2 of this OGR. The chair of the RC shall generally be appointed as one of the members of the AC. It shall establish its own charter to be submitted to the BoD for approval. The members of the AC shall satisfy all additional independence and qualification requirements as set forth in the charter of the AC. The composition of the AC shall differ sufficiently from the other committees.
- 9.2 The AC shall, in particular, have the following responsibilities:
 - 9.2.1 review the annual report, the annual financial statements and related resolutions proposed for the AGM;
 - 9.2.2 review the quarterly financial statements;
 - 9.2.3 review the ExB's report on internal controls over financial reporting (SOX 404) and the annual Compliance Report;
 - 9.2.4 review the quality, independence and performance of the internal and external audit function;
 - 9.2.5 take note of significant extraordinary reports submitted to regulators;
 - 9.2.6 review the findings of Internal Audit and the external auditors and approve their annual audit objectives;
 - 9.2.7 review and assess components of the ICS addressing compliance processes and controls;
 - 9.2.8 review jointly with the RC the annual assessment of the adequacy and effectiveness of the ICS, the status of major infrastructure and committed change programs, as well as the control functions' input into remuneration;
 - 9.2.9 review jointly with the RC other significant matters of non-financial risk as appropriate;
 - 9.2.10 submit to the BoD upon consultation of the GNC proposals for the appointment of the Head of Internal Audit;
 - 9.2.11 propose the regulatory auditor for appointment by the BoD;
 - 9.2.12 review reports by the GC on material legal and regulatory matters; and
 - 9.2.13 review reports by the CCO on material compliance matters, including matters raised by way of the whistleblower process.

10. Compensation Committee

- 10.1 All members of the CC need to be independent in the meaning of article 3.2 of this OGR. It shall establish its own charter to be submitted to the BoD for approval.
- 10.2 The CC shall, in particular, have the following responsibilities:
 - 10.2.1 review the Group's compensation principles and submit them to the BoD for approval;
 - 10.2.2 review the Group's Compensation Policy and submit it to the BoD for approval;
 - 10.2.3 discuss and determine amendments to existing or the establishment of new management and employee compensation plans and of significant fringe benefit or welfare plans and submit key elements of such plans and any significant amendments thereto to the BoD for approval;
 - 10.2.4 propose compensation for the BoD members, the CEO and the ExB members (including newly appointed ExB members) for proposal to the AGM for approval;
 - 10.2.5 review and propose the overall variable compensation pool and the key sub-pools to the BoD for approval and provide the BoD with a review of the compensation process on an annual basis;
 - 10.2.6 review and approve the compensation proposals for other individuals (e.g. individuals classified as "Covered Employees") as stipulated in the CC Charter;
 - 10.2.7 receive periodic information on employee expense regulations;
 - 10.2.8 inform the BoD on the decisions taken, review and propose any mandatory public disclosure of management compensation as well as the annual compensation report.

11. Risk Committee

- 11.1 With the exception of the chair of the RC, the RC may include non-independent BoD members, however the majority of the members must qualify as independent. The chair of the AC shall generally be appointed as one of the members of the RC. The RC shall establish its own charter to be submitted to the BoD for approval. The members of the RC shall satisfy all additional qualification requirements as set forth in the RC charter.
- 11.2 The RC shall, in particular, have the following responsibilities:
 - 11.2.1 review and assess the integrity and adequacy of the risk management function of the Group, including risk measurement approaches;
 - 11.2.2 review and calibrate:
 - the risk appetite at the level of the Group as well as at the level of key businesses considering capital, liquidity, funding, credit, market, model and climate risks, illiquid investment activities, and jointly with the AC, significant matters of non-financial risk as appropriate; and
 - major risk concentrations;
 - 11.2.3 approve the list of countries to be monitored with internal country limits and propose the country risk appetites to the BoD insofar as this authority has not been delegated (see Annex A II);
 - 11.2.4 assess the capital and liquidity planning and report to the BoD, review the Contingency Funding Plan and propose to the BoD for approval;
 - 11.2.5 review regularly relationships with top clients and material transactions from a risk perspective;

- 11.2.6 review and assess the business continuity management, risk measurement and management with respect to the ICS, and annually the firm-wide risk management framework;
- 11.2.7 review jointly with the AC the annual assessment of the adequacy and effectiveness of the ICS, the status of major infrastructure and committed change programs, as well as the control functions' input into remuneration;
- 11.2.8 review and assess the current state and evolution of the risk culture;
- 11.2.9 review the reports on material risk matters by the risk function, significant Group legal entities, Group business and Corporate Functions; and
- 11.2.10 mandate the Credit Risk Review function.

11a. Credit Risk Review

- 11a.1 Credit Risk Review is given its mandate from the RC to independently assess the Group's credit risk management practices, identify issues impacting the quality of credit risk management, and report its findings to the RC.
- 11a.2 The Global Head of Credit Risk Review functionally reports to the chair of the RC, and the Credit Risk Review team administratively is part of the CRO function.
- 11a.3 The Global Head of Credit Risk Review is appointed by the RC, in consultation with the CRO.
- 11a.4 The RC approves the annual review plan, budget and compensation for the Credit Risk Review team.
- 11a.5 Credit Risk Review has unrestricted access to all information, systems, and employees required to fulfill its mandate.
- 11a.6 Credit Risk Review has the final decision on the reporting of credit risk related findings and risk rating changes as a result of its review process. Credit Risk Review shall prepare its reports independently, and the content of these reports will be distributed to senior management and RC as set forth in the mandate.

12. Conduct and Financial Crime Control Committee

- 12.1 The CFCCC may include non-independent BoD members, however the majority of the members must qualify as independent. The chair of the AC shall generally be appointed as one of the members of the CFCCC. The CFCCC shall establish its own charter to be submitted to the BoD for approval.
- 12.2 The CFCCC shall, in particular, have the following responsibilities:
 - 12.2.1 review the Group's overall compliance framework for addressing financial crime risk;
 - 12.2.2 assess the effectiveness of financial crime compliance programs, including those with respect to the following areas:
 - anti-money laundering;
 - client identification and know-your-client (KYC);
 - client on and off boarding;
 - politically exposed persons (PEP);
 - economic and trade sanctions;

- anti-bribery and anti-corruption; and
 - client tax compliance.
- 12.2.3 review reports by the CCO and senior business leaders on material matters related to financial crime compliance, including matters concerning employee conduct;
- 12.2.4 review the findings of Internal Audit and the external auditors related to financial crime compliance;
- 12.2.5 in the compensation process, provide input to the CC with respect to relevant financial crime compliance issues, as well as provide support and advice to the CC;
- 12.2.6 conduct joint reviews with the AC and/or RC as appropriate.

13. Digital Transformation and Technology Committee

- 13.1 The DTTC may include non-independent BoD members. The DTTC shall establish its own charter to be submitted to the BoD for approval.
- 13.2 The DTTC shall, in particular, have the following responsibilities:
- 13.2.1 oversee and drive the strategic alignment of the Group's technology investments and spend as well as the governance standards for digital transformation across the Group;
- 13.2.2 oversee the execution of the Group's major digitalization and technology initiatives and tracks the progress made;
- 13.2.3 identify and assess opportunities and threats to the Group's business model from the digital transformation;
- 13.2.4 work closely with the RC and AC in regards of overseeing technology-driven risks;
- 13.2.5 obtain independent external perspectives and thought leadership to select technology trends with impact on the Group and the financial services industry more broadly; and in relation to these trends, critically examine the strategies and activities within the Group;
- 13.2.6 review reports by the CTOO on material matters related to digital transformation and technology.

14. Sustainability Advisory Committee

- 14.1 The SAC is an interdisciplinary body, which acts as an advisor to the BoD. The SAC consists of no less than three BoD members, including the BoD Sustainability Leader. Additionally, the SAC includes the Chief Sustainability Officer and selected members of the Executive Board, two of which are the Group CEO and the CRO, and may include other members. The SAC shall establish its own charter to be submitted to the BoD for approval. Otherwise, the regulations regarding the committees shall be applicable mutatis mutandis.
- 14.2 The SAC shall support and advise the BoD as follows: (1) observation and assessment of the general business relevant environment and trends regarding sustainability; (2) development of recommendations to the BoD in relation to the execution of the Group's sustainability strategy and targets; and (3) monitoring and assessing the effectiveness of the sustainability initiatives and programs within the Group.
- 14.3 The SAC shall have the right to obtain the necessary information from internal stakeholders of the Group and shall be empowered to engage with external experts.

III. Management organization

15. General provisions

- 15.1 The ExB shall have the overall responsibility for the operational management of the Group.
- 15.2 The businesses of the Group are managed through four Divisions. They are supported by designated Corporate Functions, which provide products, infrastructure and services to the Divisions, as well as perform control activities, independent from the Divisions. In addition, there is a CRU for the purposes of releasing capital from non-core businesses. The Regions reinforce the Group's integrated model of global businesses and support the Divisions and Corporate Functions across the various businesses, in particular in terms of market, client and talent development. In addition, the Regions oversee the legal entities, maintain the relationship with the regulators and ensure a robust risk-based control environment. The Divisions and Regions coordinate their activities in collaboration with the Corporate Functions where appropriate.

16. Chief Executive Officer

- 16.1 The CEO shall be appointed by the BoD and may not be a member of the BoD.
- 16.2 The CEO shall, in particular, have the following authorities and responsibilities with the right to delegate the performance and implementation of such authorities and responsibilities further:
 - 16.2.1 designate, upon consultation with and approval by the Chairman, a deputy who shall exercise all responsibilities and authorities in case the CEO may not be able to exercise his function;
 - 16.2.2 establish a management organization that avoids the creation or appearance of conflicts of interests and enables the Group to effectively operate its businesses as one economic unit in accordance with the strategy approved by the BoD. In particular, he shall establish a risk management function, a legal function and a compliance function independent from any business line;
 - 16.2.3 issue policies necessary for the management and operation of the Group, to the extent that this is not the responsibility of the BoD;
 - 16.2.4 supervise the business activities and be responsible for the implementation of resolutions of the BoD and its committees;
 - 16.2.5 approve actions and transactions and receive reports in line with annex A;
 - 16.2.6 ensure that the reporting duties to the BoD and its committees as stipulated in sections 6.3 and 8 through 13 of this OGR as well as the applicable committee charters are fulfilled.

17. Executive Board

- 17.1 The ExB members are appointed by the BoD. In general, the ExB is composed of the Divisional CEOs, the Regional CEOs and the heads of the Corporate Functions. The CEO shall act as the chair of the ExB. Otherwise, the ExB shall organize itself.

- 17.2 The CEO shall have a right to veto any decision taken by the ExB. He shall inform the Chairman on any such vetoes.
- 17.3 The ExB shall, in particular, have the following authorities and responsibilities:
- 17.3.1 regularly review and co-ordinate significant initiatives, projects and business developments in and across the Divisions, Regions and Corporate Functions and reconcile any issues;
- 17.3.2 regularly review the consolidated and divisional financial performance;
- 17.3.3 establish annually the strategic business plans, performance targets and budgets, including resource allocation, for the Group as a whole, as well as the Divisions and the Regions, subject to approval by the BoD, and implement such plans;
- 17.3.4 grant corporate titles for CSG and CS and signatory power for CS in line with section 43;
- 17.3.5 approve the annual capital expenditure plan and establish the approval authorities for investments within the approved plan as well as extraordinary investments in line with section 15 of annex A;
- 17.3.6 approve key policies for the Group, in particular, the Group Policy on Inter-Company Guarantees and the Group Policy on Capital of Branches and Subsidiaries;
- 17.3.7 appoint the Group's representatives in important commissions or organizations;
- 17.3.8 approve actions and transactions and receive reports in line with annex A.
- 17.4 Any member of the ExB must notify the CEO promptly and the ExB at the next opportunity of any extraordinary events or risks occurring in the course of ongoing business activities.
- 17.5 All board and similar mandates, held by a member of the ExB by virtue of that member's office, shall be relinquished upon termination of service within the Group, unless otherwise determined by the GNC in consultation with the CEO.

18. ExB committees

The ExB establishes the following regular committees and approves their Terms of Reference:

- the ExB RMC;
- the Group CALMC;
- the CS AG Parent CALRMC;
- the VARMC; and
- the GCB.

19. ExB Risk Management Committee

- 19.1 The ExB RMC shall consist of the members of the ExB and such other members as the CEO shall appoint. The CEO, CRO and CCO shall serve as co-chairs. Each of the co-chairs shall have a right to veto any decision taken by the ExB RMC individually and shall inform the RC chair on the respective matter in the event such veto is used. The ExB RMC shall generally meet on a monthly basis. Otherwise, the ExB RMC shall organize itself.
- 19.2 The ExB RMC may establish sub-committees to monitor specific risks or sub-committees within Divisions, Regions or subsidiaries and may delegate relevant authorities to these sub-committees as required. Such sub-committees inform the ExB RMC on a regular basis.

- 19.3 The ExB RMC shall approve actions and transactions and receive reports in line with annex A.
- 19.4 The ExB RMC shall approve all risk limit applications requiring final approval by the RC or the BoD.
- 19.5 The ExB RMC shall, in particular, have the following authorities and responsibilities:
 - 19.5.1 steer and monitor the development and execution of the bank's risk management strategy, in line with the risk management framework approved by the BoD;
 - 19.5.2 review and approve risk appetite under ExB RMC authority and recommend approvals to the BoD. This covers financial and non-financial risks;
 - 19.5.3 monitor risk appetite metrics, including limit breaches and remediation;
 - 19.5.4 monitor and review the aggregate and top risk exposures as well as risk concentrations;
 - 19.5.5 review the Group's key businesses with focus on key risks and mitigation and monitor and review key risk trends and emerging risks;
 - 19.5.6 review and assess the ICS;
 - 19.5.7 review risk relevant regulatory developments, commitments and remediation; and
 - 19.5.8 review and resolve risk escalations from any ExB RMC sub-committee or any ExB RMC member and escalate risk issues requiring additional oversight to the responsible BoD committee or to the full BoD.

20. Group Capital Allocation and Liability Management Committee

- 20.1 The CEO shall appoint the members of the Group CALMC, which shall include the CFO, CRO and the Divisional CEOs and may include other ExB members. The CFO shall serve as chair. The Group CALMC shall meet at least on a quarterly basis. Otherwise the Group CALMC shall organize itself.
- 20.2 The Group CALMC shall, in particular, have the following delegable authorities and responsibilities related to funding, liquidity and capital matters:
 - 20.2.1 review the funding and balance sheet trends and activities;
 - 20.2.2 plan and monitor regulatory and business liquidity requirements;
 - 20.2.3 plan and monitor internal and regulatory capital adequacy as well as Leverage and RWA utilization including direct responsibility over central hedging activities and delegation authority on local hedging initiatives;
 - 20.2.4 approve the Group Policy on Funding Authority in line with section 26.2.5;
 - 20.2.5 review and propose the Group and CS AG Parent contingency funding plan for approval by the BoD;
 - 20.2.6 be responsible for the interest rate risk in the banking books position taking and decides on changes to approaches related to the investments of own equity;
 - 20.2.7 set targets, approve and review adherence to targets for capital allocation, funding, liquidity and capital management actions including the review and monitoring of share re-purchases;
 - 20.2.8 maintain an optimized global booking model with established booking principles and review and challenge migration initiatives; and

20.2.9 oversees different initiatives focused on solving pre-defined areas negatively affecting our Group Effective Tax Rate and hence negatively affecting our Group Return on Tangible Equity.

21. CS AG Parent Capital Allocation, Liability and Risk Management Committee

- 21.1 The Head of Risk for CS AG Parent and Head of Treasury in CFO shall be appointed as members and co-chairs of the CS AG Parent CALRMC. Each of the co-chairs shall have a right to veto any decision taken by CS AG Parent CALRMC individually and shall inform the CRO and CFO on the respective matter in the event such veto is used. The CS AG Parent CALRMC shall meet at least on a bi-monthly basis. Otherwise, the CS AG Parent CALRMC shall organize itself.
- 21.2 The CS AG Parent CALRMC shall, in particular, have the following authorities and responsibilities related to capital management, liquidity management and risk management matters of CS AG Parent:
 - 21.2.1 review and approve all risk limit applications for CS AG Parent requiring final approval by the BoD;
 - 21.2.2 setting risk standards and strategies for CS AG Parent complementing the overall Group risk management with considerations regarding CS AG Parent-specific vulnerabilities;
 - 21.2.3 review and resolve issues pertaining to risks of CS AG Parent escalated by the risk functions of any Division, Region, Corporate Function or branch. Provide notification of risk issues requiring additional oversight to the ExB RMC;
 - 21.2.4 serve as the risk appetite authority for CS AG Parent and its branches, within the risk appetite approved by the BoD. Review the risk appetite with focus on the key risk types (1) Credit Risk, (2) Market Risk, (3) Non-Traded Market Risk, (4) Country Risk, (5) Business Risk, (6) Non-Financial Risk and (7) Enterprise Risk, including the dependencies with regulatory capital constraints;
 - 21.2.5 monitor and review the CS AG Parent aggregate risk profile, in particular the CS AG Parent-specific vulnerabilities;
 - 21.2.6 review elevated or emerging risks, in particular portfolio risks that can pose a threat to the CS AG Parent's financial resilience;
 - 21.2.7 monitor key risk trends and metrics, including limit breaches and remediation pertaining to CS AG Parent;
 - 21.2.8 review the risks associated with key CS AG Parent-booked businesses and holding company activities with focus on CS AG Parent-specific vulnerabilities and mitigation;
 - 21.2.9 review the capital, liquidity and funding trends and activities of CS AG Parent;
 - 21.2.10 review the existing business booked into CS AG Parent to ensure the ability to generate an appropriate risk/return, subject to broader accounting, tax or other financial and/or capital objectives; and
 - 21.2.11 review and challenge the Major Subsidiary financial and capital plans, including key risks and key dependencies, such as dividends or other capital repatriations from the Major Subsidiaries to CS AG Parent, ahead of approvals by the respective Major Subsidiary governance bodies.

22. Valuation Risk Management Committee

- 22.1 The CEO shall appoint a minimum of five members from the ExB and senior management to form the VARMC. The CFO shall generally be appointed as a member and chair the VARMC. Otherwise, the VARMC shall organize itself.
- 22.2 The VARMC shall, in particular, have the following delegable authorities and responsibilities: It regularly reviews the Inventory Valuation Reviews, establishes policies regarding the valuation of certain important assets and the policies and calculation methodologies applied in the valuation process, and monitors and assesses valuation risks.

23. Group Conduct Board

- 23.1 The CEO shall appoint a minimum of five members from the ExB and senior management to form the GCB. The Global Head of People, GC, CCO, CFO and CRO shall generally be appointed as members and the Global Head of People shall co-chair the GCB together with one of the other ExB members on an annually rotating basis. Otherwise, the GCB shall organize itself.
- 23.2 The GCB shall, in particular, have the following authorities and responsibilities:
 - 23.2.1 establish and determine a governance framework for the management of conduct matters throughout the Group;
 - 23.2.2 oversee the global disciplinary process, ensuring it is applied in a fair and consistent manner and ensuring cross-divisional and cross-regional harmonization and alignment;
 - 23.2.3 review disciplinary measures and serve as the decision body for disciplinary matters escalated from the Divisions, Regions and Corporate Functions (subject to escalation to the ExB);
 - 23.2.4 serve as a review panel to consider potential significant events and make recommendations to the CC on individual compensation outcomes;
 - 23.2.5 review findings from conduct related investigations and consider these in the context of determining disciplinary outcomes;
 - 23.2.6 report on progress to key stakeholders.

24. Other Committees

- 24.1 The CEO may establish further ExB committees if deemed appropriate.

IV. Corporate Functions

25. General provisions

- 25.1 While the Divisions and Regions remain responsible for certain critical operational functions, the Corporate Functions are consolidated at Group level.
- 25.2 The CEO allocates the management of such consolidated Corporate Functions to the CFO, the COO, the GC, the CRO, the CCO, the CTOO, and the Global Head of People.
- 25.3 The CFO, the COO, the GC, the CRO, the CCO, the CTOO, and the Global Head of People shall have the authority to issue policies for their respective functions as well as for areas where the execution of specific duties within their functions is allocated to the Divisions or Regions.
- 25.4 The CEO may designate other Corporate Functions and appoint the heads of such Corporate Functions.

26. Chief Operating Officer

- 26.1 The COO shall be appointed by the BoD and shall report directly to the CEO.
- 26.2 The COO shall, in particular, have the following authorities and responsibilities (“COO duties”), with the right to delegate the performance and implementation of such COO duties further:
 - 26.2.1 establish an organizational basis to manage all administrative and operational matters of the Group, i.e. including in subsidiaries and branches, as well as all other business areas allocated to the COO;
 - 26.2.2 support the CEO in the steering and strategic development of the Group;
 - 26.2.3 lead operational and cost transformation programs;
 - 26.2.4 manage Group programs focusing on key front-to-back value chains, organizational design (together with the Global Head of People), Group wide efficiencies (together with CFO), as well as oversight of the operational and capital expenditure strategy (together with CTOO and CFO);
 - 26.2.5 oversee the change portfolio strategy and prioritization, including execution of key investment programs and continuous improvement of the change management process and assurance of a holistic Group wide perspective across lines of defense;
 - 26.2.6 manage the Group wide shared services functions, Group Business Support Services and Procurement;
 - 26.2.7 manage the Group functions of Global Sustainability, Global Marketing, Corporate Communications and Group Strategy & Development;
 - 26.2.8 facilitate collaboration between the COO functions of the Divisions, Regions and Corporate Functions, in alignment with the respective Divisional and Regional CEOs and Corporate Function Heads; and
 - 26.2.9 execute other responsibilities delegated by the BoD or the CEO.

27. Chief Financial Officer

- 27.1 The CFO shall be appointed by the BoD and shall report directly to the CEO.
- 27.2 The CFO shall, in particular, have the following authorities and responsibilities (“CFO duties”), with the right to delegate the performance and implementation of such CFO duties further:
- 27.2.1 establish an organizational basis to manage all financial matters of the Group, i.e. including in subsidiaries and branches, as well as all other business areas allocated to the CFO;
- 27.2.2 establish a controlling, accounting, product control, tax, treasury and investor relation function;
- 27.2.3 ensure transparent and timely financial reporting (accounting policies, statutory and consolidated financial statements) internally as well as to the public and regulators in line with legal and regulatory requirements as well as best practice;
- 27.2.4 ensure together with the GC, CRO and CCO that all regulatory reports are filed on a timely basis;
- 27.2.5 develop and propose to the Group CALMC for approval the Group Policy on Funding Authority defining in particular the authorities and responsibilities for:
- the use of money market and capital market instruments and derivatives for the management of the balance sheet;
 - the use of capital market transactions, the issuance and sale of notes, bonds, preferred shares and similar securities;
 - the issuance of structured notes; and
 - borrowings by the Group.
- 27.2.6 manage regulatory and business liquidity and capital adequacy within the general bands set by the regulators, the BoD and the ExB RMC;
- 27.2.7 Establish and manage the CRU, which shall be overseen by a CRU Executive Committee, chaired by the CFO and consisting of the Head of the CRU, the Head of Securitized Products and other senior managers. The primary authorities and responsibilities of the CRU are to:
- execute measures to release capital from the NCU portfolio of non-strategic, low return assets;
 - oversee the residual trading assets from the Securitized Products business in accordance with the terms and conditions defined in the relevant agreement(s); and
 - manage the Group’s Legal Entity Program and other activities within the scope of the CRU.
- 27.2.8 approve actions and transactions and receive reports in line with Annex A;
- 27.2.9 appoint and oversee the divisional and regional CFOs; and
- 27.2.10 execute other responsibilities delegated by the BoD or the CEO.

28. General Counsel

- 28.1 The GC shall be appointed by the BoD and shall report directly to the CEO.
- 28.2 The GC shall have all necessary authorities for legal matters within the Group. In particular, the GC shall have the following authorities and responsibilities (“GC duties”), with the right to delegate the performance and implementation of such GC duties further:
- 28.2.1 establish an organizational basis for the management of all legal matters of the Group, i.e. including in subsidiaries and branches, independent from any business line;

- 28.2.2 manage the Global Litigation and Investigations function, responsible for handling affirmative and defensive civil litigation, arbitrations, and mediations, as well as regulatory and governmental inquiries, investigations and enforcement proceedings and for conducting internal investigations, in conjunction with the CCO Investigations function as deemed appropriate;
- 28.2.3 manage Public Policy and – together with the responsible Regional CEO – Regulatory Affairs;
- 28.2.4 be responsible for the representation of the Group vis à vis the lead regulators (excluding CRO related matters; see section 28, and CFO related matters; see section 26) and coordinate with the CCO and Regional CEOs the representation of the Group vis à vis other regulators and governmental authorities;
- 28.2.5 ensure, together with the CFO, CCO and CRO function that all regulatory reports are filed on a timely basis;
- 28.2.6 ensure, together with the Divisional CEOs, the Regional CEOs, the CCO and CRO that all license requirements are continuously adhered to;
- 28.2.7 manage security services;
- 28.2.8 appoint and oversee the divisional and regional GCs;
- 28.2.9 execute other responsibilities delegated by the BoD or the CEO.

29. Chief Risk Officer

- 29.1 The CRO shall be appointed by the BoD and shall report directly to the CEO.
- 29.2 The CRO shall, in particular, have the following authorities and responsibilities (“CRO duties”), with the right to delegate the performance and implementation of such CRO duties further:
 - 29.2.1 establish an organizational basis to manage all financial and non-financial risk management matters of the Group, i.e. including in subsidiaries and branches, and also including an appropriate credit risk management, market risk management, liquidity risk management, and non-financial risk management function, all of which shall be independent from any business line;
 - 29.2.2 establish a risk reporting system that ensures, in particular, that relevant information on the risk portfolio is provided to the ExB on a regular basis;
 - 29.2.3 designate a Chief Credit Officer, who shall have the authority to approve actions and transactions with material impact on global portfolio limits, in line with the credit risk policy;
 - 29.2.4 appoint and oversee the Divisional and Regional CROs, who shall have the authority to approve actions and transactions in line with Annex A;
 - 29.2.5 represent the Group vis-a-vis the lead regulators in technical risk management related matters;
 - 29.2.6 ensure, together with the CFO, CCO and the GC that all regulatory reports are filed on a timely basis;
 - 29.2.7 ensure, together with the Divisional CEOs, the Regional CEOs, the CCO and GC, that all license requirements are continuously adhered to;
 - 29.2.8 establish a RPSC and appoint its chair and members. The RPSC shall, in particular, have the following authorities and responsibilities:
 - review major risk management processes;

- issue general instructions, standards and processes concerning risk management;
- approve material changes in market, credit and operational risk management standards and policies and related methodology with notification to the ExB RMC and the chairman of the RC;
- review and approve procedures for analyzing and monitoring the risk portfolio;
- review and approve risk measurement principles and key parameter changes; and
- review and approve the standards for the computation of the amount of risk capital for all types of transactions.

29.2.9 approve actions and transactions and receive reports in line with annex A;

29.2.10 facilitate that the risk governance bodies of the Major Subsidiaries determine their respective governance framework for the adoption of global policies and for the issuance of subsidiary specific policies;

29.2.11 execute other responsibilities delegated by the BoD or the CEO.

30. Chief Compliance Officer

30.1 The CCO shall be appointed by the BoD and shall report directly to the CEO.

30.2 The CCO shall, in particular, have the following authorities and responsibilities (“CCO duties”) with the right to delegate the performance and implementation of such CCO duties further:

30.2.1 establish an organizational basis to manage all compliance matters of the Group independent from any business line;

30.2.2 establish a compliance reporting system that ensures that relevant information on compliance matters is provided to the ExB on a regular basis;

30.2.3 set global compliance standards, frameworks and policies, and oversee global compliance programs and compliance risk monitoring, including setting standards for adherence to the principles of consolidated supervision and overseeing their implementation;

30.2.4 coordinate together with the GC, the Divisional CEOs and the Regional CEOs the representation of the Group vis-a-vis other regulators and authorities in Regions where Regulatory Affairs is not present or does not hold the day-to-day relationship;

30.2.5 ensure, together with the CFO, CRO and the GC that all regulatory reports are filed on a timely basis;

30.2.6 ensure together with the Divisional CEOs, the Regional CEOs, CRO and GC that all license requirements are continuously adhered to;

30.2.7 appoint and oversee the CCOs for each Division and Region, Financial Crime Compliance, and Central Compliance;

30.2.8 execute other responsibilities delegated by the BoD or the CEO.

31. Chief Technology and Operations Officer

31.1 The CTOO shall be appointed by the BoD and shall report directly to the CEO.

31.2 The CTOO shall, in particular, have the following authorities and responsibilities (“CTOO duties”), with the right to delegate the performance and implementation of such CTOO duties further:

- 31.2.1 establish an organizational basis to manage all IT matters and deliver and maintain effective IT solutions for critical business initiatives within the Group, i.e. including subsidiaries and branches;
- 31.2.2 drive and manage the digital transformation of the Group;
- 31.2.3 be responsible for the new business process and policy;
- 31.2.4 run global operations;
- 31.2.5 be responsible for BCM;
- 31.2.6 appoint and oversee the divisional and regional CTOO functions;
- 31.2.7 execute other responsibilities delegated by the BoD or the CEO.

32. Global Head of People

- 32.1 The Global Head of People shall be appointed by the BoD and shall report directly to the CEO.
- 32.2 The Global Head of People shall, in particular, have the following authorities and responsibilities (“People duties”), with the right to delegate the performance and implementation of such People duties further:
 - 32.2.1 establish an organizational basis to manage all People matters of the Group, i.e. including in subsidiaries and branches, as well as other business areas allocated to the Global Head of People;
 - 32.2.2 be responsible, together with the Divisional CEOs, the Regional CEOs and heads of the Corporate Functions, for the implementation of all Group policies related to People, as well as to ensure ethical value and professional standards (Code of Conduct);
 - 32.2.3 appoint and oversee the divisional and regional heads of People;
 - 32.2.4 execute other responsibilities delegated by the BoD or the CEO.

V. Divisions

33. General provisions

- 33.1 While the CEO and the members of the ExB have the overall management responsibility for the Group, the responsibility for the operational management of the Divisions and the subsidiaries and branches, for which the management has been allocated to the Divisions, lies with the Divisional CEOs.
- 33.2 The Divisional CEOs shall establish for their Divisions their own MC. They shall be responsible for establishing an efficient organizational and management structure in the Division. The Divisional CEO consults with the ExB prior to making significant changes to the organizational and management structure in the Divisions.

34. Divisional CEOs

- 34.1 The Divisional CEOs shall be appointed by the BoD and report directly to the CEO.
- 34.2 The Divisional CEOs shall be responsible for the operational management of the businesses and subsidiaries and branches allocated to their Division. They shall, in particular, have the following authorities and responsibilities ('Divisional CEOs duties') with the right to delegate the performance and implementation of such Divisional CEOs duties further:
 - 34.2.1 establish an adequate organizational basis to manage the divisional businesses and subsidiaries and branches allocated to such Division; with regard to the subsidiaries and branches they shall consult with the responsible Regional CEO;
 - 34.2.2 appoint the managers of the divisional business areas;
 - 34.2.3 receive reports and manage matters escalated from the divisional business areas;
 - 34.2.4 issue policies, in coordination with the CCO, necessary for the management and operation of the Division, to the extent that it is not the responsibility of the BoD, the CEO or the ExB;
 - 34.2.5 actively co-ordinate business activities with the other Divisional CEOs, the responsible Regional CEOs and the responsible Business Heads;
 - 34.2.6 coordinate with the GC and the responsible Regional CEOs the representation of the Group vis à vis other regulators and authorities in regions where Regulatory Affairs is not present in the respective region or does not hold the day-to day relationship;
 - 34.2.7 ensure, together with the GC, the CCO, the CRO and the responsible Regional CEOs that all license requirements are continuously adhered to; and
 - 34.2.8 execute other responsibilities and authorities delegated by the BoD or the CEO.

35. Divisional Management Committee

- 35.1 The Divisional MC shall consist of the Divisional CEO and other members from Divisional management appointed by the Divisional CEO upon consultation with and approval by the CEO. The Divisional CEO shall act as the chair of the MC. Otherwise, the MC shall organize itself.
- 35.2 The Divisional MC shall, in particular, have the following delegable authorities and responsibilities:
 - 35.2.1 regularly review and co-ordinate significant initiatives, projects, and business developments in the Divisions and efficiently reconcile any arising issues; and
 - 35.2.2 develop the divisional strategic business plan and budget for approval by the ExB.
- 35.3 Any MC member must notify the Divisional CEO promptly and the MC at the next opportunity of any extraordinary risks occurring in the course of ongoing business activities.

36. Divisional Risk Management Committee

- 36.1 The Divisional CEO shall establish a Divisional RMC for his area of responsibilities, which shall consist of the Divisional Head, members from the Divisional MC, selected members of senior management as well as representatives from relevant Regions and Corporate Functions. The Divisional RMC may hold meetings jointly with other Divisional RMCs and/or RMCs of the major subsidiaries. Other than that, the Divisional RMC may organize itself.
- 36.2 The Divisional RMC shall, in particular, have the following delegable authorities and responsibilities:
 - 36.2.1 regularly review and discuss Division specific market and credit risk matters;
 - 36.2.2 perform tasks delegated to it by the ExB RMC;
 - 36.2.3 set limits to control or cap businesses as appropriate;
 - 36.2.4 regularly review and discuss Division specific operational risks, legal and compliance issues and internal control matters if these tasks are not performed by another divisional committee;
 - 36.2.5 ensure that significant divisional risks are escalated to the ExB RMC or other bodies at CS level as appropriate.

VI. Regional management

37. General provisions

- 37.1 Each of the four geographic regions (Switzerland, EMEA, APAC, Americas) is led by a Regional CEO. Given the particular position as home market of the Group, supplementary regulations may be set forth for the Region Switzerland, which may also deviate from the following regulations. They need to be approved by the ExB.
- 37.2 The Regional CEOs shall establish their own Regional MCs. They are responsible for an efficient organizational and management structure in the Region. The Regional CEOs consult with the ExB prior to making significant changes to the organizational and management structure in the Regions.

38. Regional Chief Executive Officer

- 38.1 The Regional CEOs shall be appointed by the BoD and shall report directly to the CEO.
- 38.2 The Regional CEOs shall, in particular, have the following authorities and responsibilities (“Regional CEO duties”) as it relates to their Region with the right to delegate the performance and implementation of such Regional CEO duties further:
 - 38.2.1 issue policies necessary for the management and operation of their Region, to the extent that it is not the responsibility of the BoD, the CEO, the ExB or a Division and to the extent it does not concern the responsibility of a Corporate Function;
 - 38.2.2 be responsible for the management of the Region and establish an appropriate management organization for the countries, subsidiaries and branches in their Region. Appoint, upon consultation and approval by the CEO, the country heads and appoint and oversee the management of the subsidiaries, branches and representative offices;
 - 38.2.3 determine – together with the Divisional CEOs concerned and within the overall risk limits framework as approved by the BoD – the risk limits for countries with an increased risk profile in their Region and be responsible for monitoring such risk limits;
 - 38.2.4 receive reports and manage matters escalated from the countries, subsidiaries, branches and representative offices in their Region;
 - 38.2.5 foster the business development of the Group in their Region by driving and coordinating cross-divisional collaboration, as well as by fostering business growth and key client coverage in their Region;
 - 38.2.6 oversee risk management activities in their Region, and decide – together with the Divisional CEOs concerned – in particular on sensitive transactions and the on-boarding of high-risk clients. In addition, review – together with the Divisional CEOs concerned – high-risk client relationships over the life cycle. Coordinate any necessary action with the Divisions and Corporate Functions concerned;
 - 38.2.7 represent the Group vis-a-vis authorities and key clients in their Region, individually or jointly with divisional or Corporate Functions representatives as appropriate;

- 38.2.8 have ultimate responsibility for Legal Entity oversight and the relationship with regulators in their Region, with the exception of the relationship vis-a-vis the lead regulator (see also sections 27.2.4 and 29.2.4); responsible – together with the GC – for regulatory affairs in their Region;
- 38.2.9 decide – together with the Divisional CEO concerned – on hires or dismissals of employees with key functions (e.g. employees classified as “material risk takers and controllers”) in their Region, including promotion, variable compensation and disciplinary measures of such individuals;
- 38.2.10 are responsible – in close cooperation with the Divisional CEOs and the Global Head of People—for the Regional leadership bench and talent strategy in their Region; ensure a consistent employee value proposition and an adequate firm-wide corporate culture in their Region.

39. Regional Management Committee

- 39.1 The Regional MCs shall consist of the Regional CEO and representatives of the Divisions, Corporate Functions, significant subsidiaries and country management appointed by the Regional CEO upon consultation with and approval by the CEO. The Regional CEO shall act as the chair of the Regional MC. Otherwise the Regional MC shall organize itself.
- 39.2 The regional MC shall, in particular, have the following authorities and responsibilities:
 - 39.2.1 regularly review and co-ordinate significant cross-divisional initiatives, projects, business developments in their Region and efficiently reconcile any arising issues;
 - 39.2.2 regularly review and assess regulatory and Legal Entity oversight;
 - 39.2.3 provide the Divisions with information relevant for the strategic business plan and financial plans.
- 39.3 Any Regional MC member must notify the Regional CEO promptly and the Regional MC at the next opportunity of any extraordinary risks occurring in the course of ongoing business activities.

VII. Subsidiary and branch governance

40. General provisions

- 40.1 Governance of Group subsidiaries and branches is based on the principles of consolidated supervision and an integrated oversight and management structure with global scope.
- 40.2 Subject to the applicable local laws, regulations and best practice standards, directors and officers of Group subsidiaries and branches are bound to ensure transparency and collaboration throughout the Group, in particular through the appropriate flow of information and cooperation within and across all business and organizational structures.

41. Subsidiary governance

- 41.1 The BoD designates those subsidiaries through which, collectively, the majority of the Group's banking operations are conducted, as Major Subsidiaries, and in agreement with the CEO and consistent with applicable local law and regulations, may allocate certain responsibilities to these Major Subsidiaries.
- 41.2 The BoD approves the nominations and dismissals of the members of the board of the Major Subsidiaries and approves their remuneration. Major Subsidiaries shall furthermore be subject to a set of minimum governance standards, which are periodically reviewed and approved by the BoD.
- 41.3 Each Major Subsidiary shall have its own governance documents. These shall comply with all applicable local law and regulations and, to the extent possible, be consistent with the same principles and rules as stated in this OGR.
- 41.4 In order to ensure a transparent flow of information, meeting documentation and other information prepared for management purposes of Major Subsidiaries shall be shared with the supervisory and management bodies of the Group.
- 41.5 Further, CSG shall be informed about any material matter of a Major Subsidiary. Prior to a substantial decision of a Major Subsidiary, CSG shall be consulted at the earliest opportunity as specified by the governance documents of the relevant subsidiary.
- 41.6 The BoD may at any time define certain other subsidiaries and governance bodies as strategically important. They are – mutatis mutandis – subject to the regulations set forth in this section.

42. Branch governance

- 42.1 The ExB shall determine the governance and oversee the management of the Group's branches and representative offices, in line with applicable legal and regulatory requirements.
- 42.2 The Regional CEO of the Region, in which the branch is operating, shall determine the reporting lines for Branch Managers and the responsibility for the management of the branch's business operations;
- 42.3 The Regional CEOs consider size and complexity of the branch's organization and the materiality of its business operations. The ExB may classify branches with the most material operations as "Material Branches". They are subject to a set of minimum governance standards. The ExB may apply the same or other governance standards for other branches.

- 42.4 With respect to the management and oversight of the Material Branches, the following minimum governance standards shall apply:
- 42.4.1 the Regional CEO of the Region, in which the branch is operating, shall, upon consultation with the ExB, appoint the general manager of the branch (the “Branch Manager”). The Regional CEO shall serve as line manager to these Branch Managers or may delegate this responsibility. Branch Managers shall generally not also serve as officers of a Major Subsidiary or in a control function role. Branch Managers shall have the authority and responsibility for the management of branch matters and escalation of such to the Regional CEO or delegate;
 - 42.4.2 the relevant Corporate Functions shall, upon consultation with the Branch Manager and, if appropriate, the Regional CEO or delegate, appoint a Branch CRO, CFO, CCO and GC, and may appoint other officers;
 - 42.4.3 the Branch Manager shall establish a Branch Management Committee and, together with the Branch CRO, a Branch Risk Management Committee. The Branch Manager may establish further branch committees;
 - 42.4.4 the responsibility for capital, liquidity and financial matters of the branches shall be with the CFO function; and
 - 42.4.5 the mandates of the Branch Managers and other Branch management functions of the Material Branches may be defined in further detail, subject to approval by the ExB.
- 42.5 For branches not designated as material branches and representative offices, the Regional CEO of the Region, in which the branch or representative office is operating, shall appoint the Branch Manager or head of the representative office.

VIII. Internal Audit

43. Internal Audit

- 43.1 Internal Audit shall systematically, objectively and independently assess whether major risks are appropriately identified and managed, the internal control system is effective, the governance processes established ensure compliance with applicable policies, laws and regulations, and management performs efficient monitoring and oversight.
- 43.2 Internal Audit is mandated by and reports to the AC. The Head of Internal Audit shall report directly to the chair of the AC. The Head of Internal Audit shall have unrestricted access to all information and all employees as it is required to perform his tasks.
- 43.3 The Head of Internal Audit shall be appointed by the BoD upon proposal by the AC and upon consultation by the GNC.
- 43.4 The authorities and responsibilities as well as the working procedures of Internal Audit shall be outlined in the charter of the AC and the Regulations for Internal Audit as adopted by the AC.
- 43.5 Internal Audit shall prepare its reports independently. The reports shall be distributed to executive bodies and ExB members as set forth in the Regulations for Internal Audit.
- 43.6 As set forth in the charter of the AC and in the Regulations for Internal Audit Internal Audit shall regularly submit reports to the AC on significant findings, the achievement of its annual audit objectives, and other matters as deemed appropriate.
- 43.7 Any member of the ExB may submit a request to the chair of the AC or, in his absence, to the Chairman, for Internal Audit to carry out a special project or investigation.

IX. Special provisions

44. Conflicts of interest

- 44.1 The members of the BoD, the ExB, the Divisional and Regional MCs, the MCs of the Corporate Functions and all committees named herein are obliged to preserve the interests of the Group.
- 44.2 Conflicts of interest of a personal nature, private or professional, potential conflicts of interest and even the appearance of conflicts of interest should be avoided. Any conflicts of interest with respect to a particular transaction, including conflicts of interest of persons or companies with whom the member has close personal relations, should be disclosed to the chair of the relevant body prior to the resolution process for such transaction. The affected member shall not become involved in the resolution process for such transaction.
- 44.3 With respect to conflicts of interest arising because a member of a body is also a member of another body or company within the Group, which is involved or affected by the transaction or matter to be decided, the following principles shall apply:
 - 44.3.1 the member concerned shall disclose the conflict of interest and a personal assessment thereof in advance to the chairman of the relevant body and subsequently to that body itself unless this is obvious;
 - 44.3.2 the relevant body shall take the interest of the other body or company into consideration and make reasonable efforts to find a solution that aligns the common interests of both bodies or companies as much as possible; and
 - 44.3.3 if no solution according to OGR 44.3.2 can be found, the conflicted member shall generally abstain from voting.

45. Titles, signing authorities and Powers of Attorney

- 45.1 Corporate titles of the Group and signing authority on behalf of CS
 - 45.1.1 The BoD appoints the CEO and the members of the ExB and grants them full signing authority exercisable jointly by two.
 - 45.1.2 The ExB promotes MDR, MDA, DIR, VP, AVP, ASO and ANL.
 - 45.1.3 The ExB may grant joint signing authority to MDR, MDA, DIR and VP in line with the AoA of CS.
 - 45.1.4 The ExB may grant joint power of procuration (dual authorization) (i.e. Prokura according to Art 458ff of the Swiss Code of Obligations) to AVP, ASO and ANL in line with the AoA of CS.
 - 45.1.5 The ExB may grant limited signing authority (dual authorization) in the form of a commercial mandate (i.e. Handlungsvollmacht according to Art 462 of the Swiss Code of Obligation) to employees without a corporate title.
 - 45.1.6 The ExB may establish policies to further detail signing authorities.

45.2 Special provisions for signing authority on behalf of CSG

45.2.1 The approval of any signing authority (joint signing authority, joint power of procurement and commercial mandates) on behalf of CSG are approved by the BoD.

45.3 Functional titles

45.3.1 The ExB shall establish a policy to guide the use of functional titles within the Group.

45.4 Powers of Attorney

45.4.1 Powers of Attorney may be granted as set forth below to third parties, who may also be employees of the Group, authorizing such third parties to individually or jointly execute documents or take other actions in connection with actions and transactions approved consistent with the OGR.

45.4.2 Members of the ExB or the Divisional and Regional MC as well as the heads of the Corporate Functions and their direct reports may, jointly by two, grant Powers of Attorney or

- designate certain employees with a corporate title of AVP or higher in the GC area to be authorized to grant, jointly by two, Powers of Attorney on behalf of CSG or CS. This primarily applies to the granting of Power of Attorney in legal proceedings;
- designate certain employees with a corporate title of VP or higher in the Divisions, Regions or Corporate Functions to be authorized to grant, jointly by two, Powers of Attorney on behalf of CSG or CS. This applies to the granting of Power of Attorney not related to legal proceedings.

45.4.3 Powers of Attorney for the acts of any branch of CS outside Switzerland may be granted by two authorized signatories of such branch, one of which must be the branch manager or an MDR.

46. Meetings and minutes

46.1 Meetings of the BoD and its Committees

46.1.1 The BoD shall hold at least six ordinary meetings per year. The frequency of the meetings of the committees of the BoD shall be defined in the charter of the respective committee.

46.1.2 Extraordinary meetings of the BoD and its committees shall be held upon request by the chair of the respective body or any other member.

46.1.3 The meetings shall be called by the respective chair; sufficient notice of meetings shall be given prior to the meeting date and shall contain the items on the agenda.

46.1.4 The BoD and each committee shall designate a secretary who need not be a member of such body.

46.1.5 Preparatory documents for the meeting shall be made available in a timely manner. In principle, business matters asking for a formal decision may not be decided upon without advance documentation.

46.1.6 The respective chair shall decide as to the attendance of ExB members and senior management members at meetings.

46.1.7 Subject to statutory provisions to the contrary, the majority of the members of the respective body must be present for the purpose of passing resolutions. Participation via telephone or video-conference is permitted and deemed as attendance, whereby personal presence is preferred.

- 46.1.8 A majority of the members of the BoD must be present in order to pass resolutions. The majority of the votes of the members present shall be necessary to pass a resolution. In the event of deadlock, the chair of the meeting shall cast the deciding vote.
- 46.1.9 Resolutions of the BoD or a committee may also be passed by way of written consent provided the text of the resolution is sent to all members of the respective body and provided that a majority of the members cast a vote. The procedure for circular resolutions should be restricted to the following cases: administrative and routine matters, matters of increased urgency, and matters with respect to which the core content has already been discussed by the BoD. Any member shall have the right to request, within the period stipulated for the vote, that the matter be discussed in a meeting.
- 46.1.10 The minutes of the BoD and its committees shall document all decisions made and reflect in a general matter the considerations made which led to the decisions taken.
- 46.1.11 The minutes of the BoD and its committees shall be signed by the chair and the secretary of the respective body. They shall be made available for review prior to the next meeting and approved thereat.
- 46.2 Meetings of ExB and other bodies reflected in the OGR
- 46.2.1 The CEO and the respective chair determine the frequency of meetings of the ExB and other bodies reflected in this OGR.
- 46.2.2 The ExB and other bodies reflected in the OGR may, unless otherwise instructed by the CEO or the respective chair or without being explicitly requested by an ExB member, record the resolutions only.
- 46.2.3 Otherwise the rules set out above for the meetings of the BoD and its committees shall in analogy be applicable to the meetings of the ExB and other bodies reflected in the OGR.
- 46.2.4 A majority of the members of the ExB and its committees must be present in order to pass resolutions. The majority of the votes of the members present shall be necessary to pass a resolution.

47. Financial year

The financial year is identical with the calendar year (1st of January until 31st of December).

Annex A – Approval authorities

I. Authority for credit transactions and credit limits

1. General provisions

- 1.1 The management of credit risk is a joint responsibility between the Divisions and CRM. The ultimate credit risk decision generally lies with the Division, with CRM intervention being necessary in cases of material impacts on global portfolio limits. After credit assessment and endorsement by the respective front management, all credit exposures require approval under the authorities designated by the CRO, the Chief Credit Officer and Divisional CROs (subject to the provisions set out below). CRM can delegate authorities for the approval of credit transactions with fully standardized approval procedures to defined individuals from the front organization.
- 1.2 The CRO establishes and approves the Global Credit Risk Policy. The Chief Credit Officer –in consultation with the CRO – details the Global Credit Policy further by establishing divisional sub-policies.
- 1.3 All loans and other credit limits must be approved and documented and periodically reviewed in an independent credit review process in accordance with the policies set forth by the Chief Credit Officer.
- 1.4 The total credit limit for a client, or in the case of client groups, the aggregate of all total credit limits or transactions is relevant for the determination of the approval authority. This does not apply to credit transactions for which the CRM sets up fully standardized procedures for approval by representatives of the relevant front organization.

2. Approval authorities

- 2.1 The Chief Credit Officer has approval authority up to USD 3bn. Credit limits and underwritings exceeding this threshold are to be approved by the CRO.
- 2.2 The Divisional CROs have approval authority up to USD 2bn for investment grade and USD 1.5bn for non-investment grade.
- 2.3 Upon consultation with the CRO, the Chief Credit Officer shall establish a policy outlining the approval limits to be delegated to credit specialists, special managing bodies within CRM or defined representatives of the front organization. The maximum limit to be delegated may not exceed USD 2bn in aggregate. The policy shall also regulate the approval authorities establishing provision on credit positions, other actions in connection with credit recovery situation, temporary limit excesses and account overdrafts.
- 2.4 Upon consultation with the Chief Credit Officer, the Divisional CROs shall establish a policy outlining the approval limits to be delegated to credit specialists in their respective Divisions.
- 2.5 Any transaction which results in a counterparty exposure exceeding 25% of the available CET1 capital is subject to review by the CFO.

- 2.6 The anticipated hold level for underwritings is generally to be achieved within 90 days but may vary depending on the nature of the transaction. During a prescribed period, underwriting positions may be exempt from certain limits if approved by the ExB RMC or its delegates.
- 2.7 The RC may temporarily approve higher approval authorities.
- 2.8 Subject to the endorsement by the CRO, the Divisional CROs shall establish, in accordance with OGR section 2.2, the authority for approving urgent credit transactions for their respective Divisions.

II. Authority for country risk appetites

3. Approval authorities

- 3.1 For the countries determined by the BoD according to section 5.1.9 of this OGR country risk appetites shall be approved at least on an annual basis. Approval authority for the country risk appetites is governed as follows:
 - 3.1.1 Upon recommendation of the RC, the BoD approves the list of countries where authorities are delegated.
 - 3.1.2 Approval of country risk appetites by the BoD is to be given upon the recommendation of the RC.
 - 3.1.3 An overall Group Reserve may be established and is governed by the ExB RMC, which may further sub-delegate the authority.
 - 3.1.4 Allocation of country risk appetites to the Divisions is determined by the ExB RMC, which may further sub-delegate the authority.
- 3.2 The country ratings are approved by the Group Chief Credit Officer.

III. Trading activities

4. Trading activities

- 4.1 The ExB RMC may establish trading risk and position limits for the Divisions and the major subsidiaries within the Group and may delegate the monitoring of such limits as appropriate.
- 4.2 The ExB RMC shall ensure that appropriate approval processes for transactions executed under these trading risk limits are established.
- 4.3 The CRO may approve temporary excesses of any trading risk and position limit up to a maximum of 10% until the next ExB RMC meeting, with immediate notice to the CEO, and with information to the ExB RMC and the BoD at its next meeting.
- 4.4 The CRO signs off on the incremental risk associated with excesses of ExB RMC limits and approves the remediation plan with immediate notice to the CEO and subsequent information to the ExB RMC and the BoD at the next opportunity.

IV. Illiquid investments

5. General provisions

- 5.1 The illiquid investment limit covers transactions which due to their characteristics and risk profile are not subject to ExB RMC approved processes for trading activities outlined in section III of annex A and are not subject to the approval authorities outlined in section V of annex A.
- 5.2 The illiquid investment limit covers in particular seed money investments, private equity investments, including investments in portfolio companies and funds, and other illiquid investments, as well as investments pursued for bank strategic reasons, which are subject to section V below.

6. Approval authorities

- 6.1 The illiquid investment limit is approved by the BoD upon recommendation by the RC.
- 6.2 The ExB RMC shall allocate the illiquid investment limit to the Divisions in relation to their requirements. It may introduce restrictions to using the limit e.g. in terms of industry or type of business. The ExB RMC receives regular updates on the exposure under the illiquid investment limit.
- 6.3 The Divisions shall establish a governance model regarding investments under the illiquid investment limit as delegated to them by the ExB RMC. In particular, the Divisions shall establish rules as to approval authorities as well as information and escalation processes.

V. Formations, liquidations, mergers, acquisitions, divestitures, long-term participations and other actions and transactions, legal cases

7. General provisions

- 7.1 The approval authorities as outlined herein are required for the actions and transactions described in sections 8 to 11b. They do not apply to transactions accounted for under the illiquid investment limit or investments made for trading purposes.
- 7.2 Notwithstanding anything to the contrary in section V or elsewhere in this OGR, the CFO or his delegate may approve any of the actions or transactions in sections 8 to 11b of annex A when they are taken or entered into in the context of or incidental to other actions and transactions that were previously approved in accordance with the OGR, with periodic information to the CEO.
- 7.3 When any approval or denial is given by the CFO's delegate, he must give regular information to the CFO.
- 7.4 A "Non-operating Subsidiary" is any subsidiary that is both (a) not regulated and (b) and has no material contact with third parties. A subsidiary that is not a Non-operating Subsidiary is an "Operating Subsidiary". "Regulated" means regulated or licensed in any jurisdiction as a bank, securities firm or other financial services provider.

8. Formation and liquidation of subsidiaries

- 8.1 When directly or indirectly wholly owned by the Group and provided the formation or liquidation of the subsidiary will not result in a significant change to the organizational structure, the action shall be approved by the CFO or his delegate.
- 8.2 The formation or liquidation of a Non-Operating Subsidiary shall be approved by the CFO or his delegate.
- 8.3 Otherwise the formation or liquidation shall be approved in accordance with the approval authorities in section 12 of annex A, where the relevant total amount of the transaction is,
 - a) in the case of a formation, the total amount of capital to be initially provided (or anticipated to be provided in the short term) to such subsidiary by CSG, CS or one of its subsidiaries, and
 - b) in the case of a liquidation, the estimated value of the direct or indirect interest in the subsidiary at the time the determination to liquidate is made.

9. Merger, consolidation or similar transaction; acquisition or divestiture of a subsidiary, interest in a subsidiary or assets constituting a business

- 9.1 When solely among any of the direct or indirect wholly owned subsidiaries, except when such transaction results in a significant change to the organizational structure, the action or transaction shall be approved by the CFO or his delegate.
- 9.2 When, in connection with the day-to-day management of a line of business, a Non-operating Subsidiary is to be merged, consolidated, or be party to a similar transaction with a third party, the action or transaction shall be approved by the CFO or his delegate.
- 9.3 When, in connection with the day-to-day management of a line of business, a Non-operating Subsidiary, an interest in a Non-operating Subsidiary or assets constituting a business that is not regulated in the meaning of section 7.4 of annex A is to be acquired from or divested to a third party, the action or transaction shall be approved by the CFO or his delegate.
- 9.4 Otherwise the action or transaction shall be approved in accordance with the approval authorities in section 12 of annex A, where the relevant total amount of the transaction is,
 - a) in the case of a merger, consolidation or similar transaction, the difference between the estimated value of the resulting merged, consolidated, similarly combined entity or interest in such entity and the estimated value of the Group's direct or indirect interest in any subsidiary that was a party to such merger, consolidation or similar transaction prior to such transaction, and
 - b) in the case of an acquisition or divestiture, the estimated value of/price paid for the subsidiary, interest in a subsidiary or assets constituting a business.

10. Acquisition or divestiture of a long-term participation

- 10.1 A long-term participation is generally an equity investment or equity-like investment (e.g. convertible debt instrument, call options, warrants) (collectively, an "Equity-Like Long-term Participation") made by CSG or any of its subsidiaries for strategic reasons in a third party entity. Thereby it is not relevant whether or not the long-term participation is consolidated within the Group.

10.2 An acquisition or a divestiture of a long-term participation must be approved as follows:

- a) When the estimated value of/price paid for the long-term participation being acquired or divested is less than CHF 2m, such transaction shall be approved by the responsible member of a Divisional MC, with information to the Divisional CEOs, the CEO and the CFO.
- b) When a) above is inapplicable, a long-term participation is being acquired or divested in connection with the day-to-day management of a business line and such participation is in an entity that (i) is not regulated in the meaning of section 7.4 of annex A and (ii) has no material contact with third parties, the transaction shall be approved by the CFO or his delegate.
- c) Otherwise the transaction shall be approved in accordance with the approval authorities in section 12 of annex A, where the relevant total amount of the transaction is the estimated value of/price paid for the long-term participation.
- d) In case of an acquisition of an Equity-Like Long-term Participation, such transaction shall be approved according to a), b) or c) above both: (i) at the time of the acquisition of the Equity-Like Long-term Participation; and (ii) at the time it is intended to exercise the Equity-Like Long-term Participation into an equity participation within the meaning of Section 10.1.

11. Establishment or closure of branches and representative offices

- 11.1 The establishment or closure of a branch or a representative office of CSG, CS, and other direct subsidiaries of CSG shall be approved by the CEO upon consultation with the ExB and the responsible Regional CEO.
- 11.2 If not explicitly regulated otherwise or governed elsewhere, the establishment or closure of a branch or representative office of an Operating Subsidiary of CS shall be approved by the CFO or his delegate, upon consultation with the responsible Regional CEO and in consideration of the relevant subsidiary specific regulations.
- 11.3 The establishment or closure of a branch or representative office of a Non-operating Subsidiary of CSG or CS shall be approved by the CFO or his delegate.

11b. Legal cases

Settlements in respect of significant legal proceedings are reviewed by the GC and decided by the ExB where the sum involved is CHF 250m or more. The BoD is informed in accordance with sections 16.2.6 and 6.3. The conclusion of a settlement that has a significant impact on the strategy or reputation of the Group is subject to the approval of the BoD if the sum involved is CHF 500m or more.

12. Approval authorities

Unless provided otherwise by section V of annex A, approval authority is governed as follows:

<u>Transaction value</u>	<u>CFO or delegate</u>	<u>CEO</u>	<u>ExB</u>	<u>Chairman</u>	<u>BoD</u>
≤/ < CHF 50m	D	I	—	—	—
> CHF 50m ≤/ < CHF 100m		D	I	—	—
> CHF 100m ≤/ < CHF 250m			D	C	I
> CHF 250m					D

D = Decision; C = Consultation; I = Information

VI. Reputational risks

13. Reputational risk management

13.1 Reputational risk management shall be regulated in a policy (GP-00103).

VII. Financing matters and capital expenditures

14. Financing of CSG, CS and its subsidiaries

- 14.1 The use of money market instruments and capital market transactions, the issuance and sale of bonds, structured notes and similar securities is governed by the Group Policy on Funding Authority.
- 14.2 The conclusion or extension of a loan agreement or a guarantee agreement in connection with a loan agreement of a subsidiary and draw-downs under such agreements are governed by the Group Policy on Funding Authority and the Policy on Inter-Company Guarantees.
- 14.3 Issuance of comfort letters, regulatory keep-well letters and similar documents on behalf of CSG or CS require approval by the CFO. Issuance of comfort letters, regulatory keep-well letters and similar documents on behalf of subsidiaries require approval by the CFO or his delegate.

15. Capital expenditures

- 15.1 The annual financial planning process for the Group shall include the planning of capital expenditure projects (in particular investments in IT and in Group owned real estate) as well as the total financial framework for capital expenditures.
- 15.2 The ExB shall approve the capital expenditure plan for the Group. The ExB shall further establish a policy outlining the authority for the approval of individual investments under the approved plan as well as the authority for approval of expenditures outside the approved plan.
- 15.3 For each project or investment, a written capital expenditure application prepared in accordance with the applicable policies must be submitted for review to the approving member of management or management body.
- 15.4 The authority for the purchase of real estate at auctions in connection with repossession proceedings against banking clients or the acquisition of such real estate (under such circumstances) shall be determined by the ExB RMC.

Annex B – Approval authorities for Credit Suisse Group AG specific matters

I. Capital structure of CSG

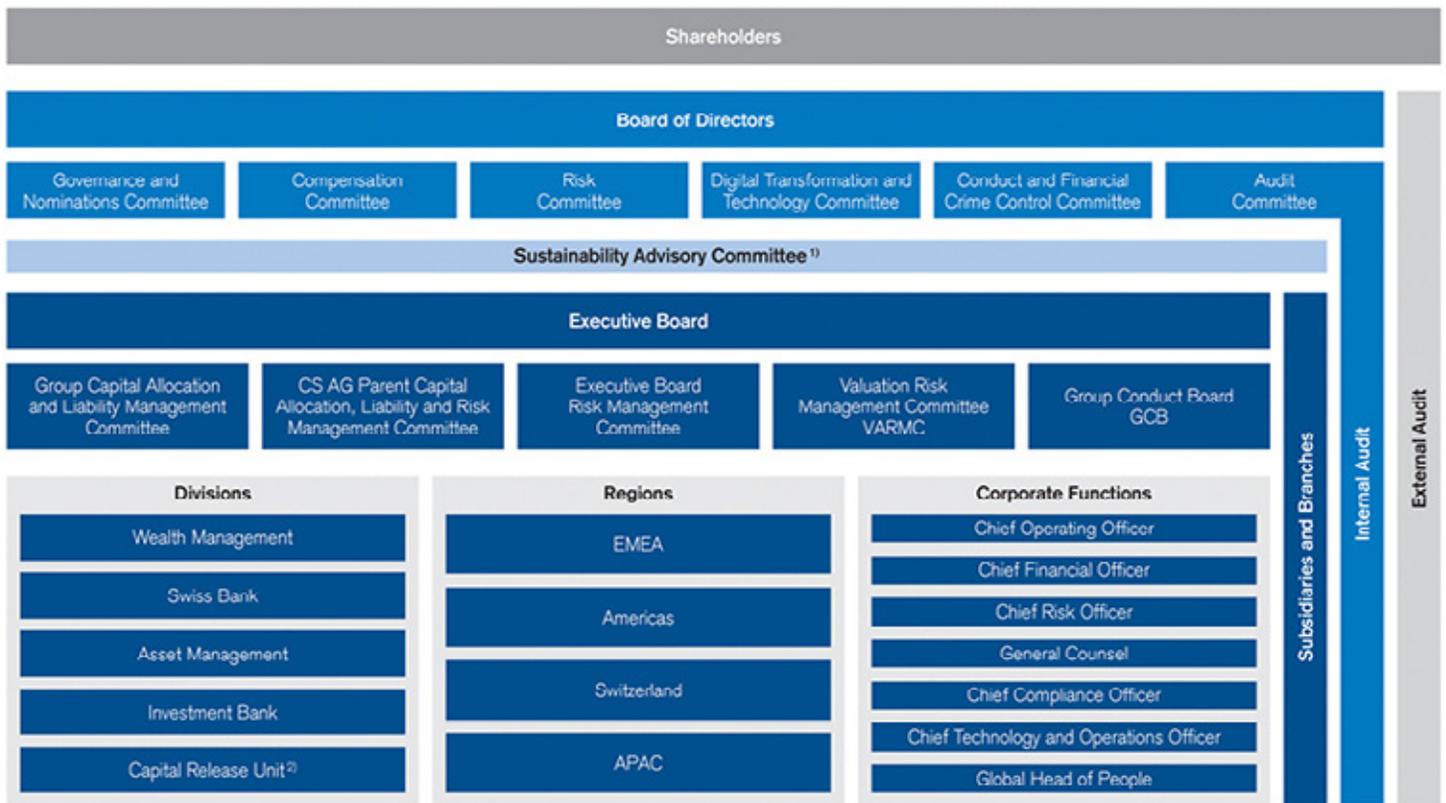
1. Ordinary, authorized, conditional and conversion capital

- 1.1 The creation and any changes to the ordinary, authorized, conditional and conversion capital require approval by the shareholders upon proposal by the BoD.
- 1.2 The issuance of new shares out of ordinary or authorized capital as well as out of conversion capital may be executed by the BoD. In line with CSG's AoA there is no quorum requirement for the acknowledgment of capital increases and the subsequent changes to the AoA.
- 1.3 The allocation of conditional capital for convertible bonds, contingent convertible bonds, bonds with options, shareholder options or similar instruments as well as for employee compensation plans is the responsibility of the BoD.
- 1.4 The allocation of conversion capital for contingent convertible bonds or similar instruments is the responsibility of the BoD.

II. Share register

- 2.1 The BoD appoints one or several Share Registrars.
- 2.2 The BoD issues or amends regulations governing the shareholders' register.
- 2.3 The BoD shall receive at least annually a report on the shareholder structure according to the share register.

Annex C – Corporate bodies



1) Interdisciplinary advisory body formed by the Board of Directors, which consists of members of the Board of Directors and senior management.

2) The Capital Release Unit (CRU) is managed by the Chief Financial Officer and shown as a separate reporting segment for reporting purposes.

CREDIT SUISSE GROUP AG

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Exhibit 2.2

DESCRIPTION OF SECURITIES REGISTERED UNDER SECTION 12 OF THE EXCHANGE ACT

As of December 31, 2022, Credit Suisse Group AG (“**Credit Suisse Group**” and the “**Company**”) had shares and American Depositary Shares registered pursuant to Section 12 of the Securities Exchange Act of 1934 and Credit Suisse Group’s subsidiary, Credit Suisse AG (the “**Issuer**,” “**we**,” “**us**,” and “**our**”), had certain Exchange-Traded Notes registered pursuant to Section 12 of the Securities Exchange Act of 1934.

REGISTERED SHARES

General

The following description of Credit Suisse Group’s registered shares is a summary and does not purport to be complete. The summary describes the material terms of the registered shares of Credit Suisse Group, par value CHF 0.04 per share, which Credit Suisse Group refers to as the Company’s “**shares**.” The summary is subject to and qualified in its entirety by reference to the Company’s Articles of Association, which are incorporated by reference as an exhibit to the Company’s Annual Report on Form 20-F of which this Exhibit 2.2 is a part.

As of December 31, 2022, Credit Suisse Group had fully paid and issued share capital of CHF 160,086,322.48, comprised of 4,002,158,062 registered shares with a par value of CHF 0.04 each.

As of December 31, 2022, Credit Suisse Group had additional authorized share capital in the amount of CHF 5,000,000, authorizing the Board of Directors of Credit Suisse Group (the “**Board of Directors**”) to issue at any time until April 29, 2024 up to 125,000,000 registered shares, to be fully paid in, with a par value of CHF 0.04 each.

Additionally, as of December 31, 2022, Credit Suisse Group had total conditional share capital in the amount of CHF 12,000,000, for the issuance of a maximum of 300,000,000 registered shares with a par value of CHF 0.04 each, reserved for the purpose of increasing share capital through the conversion of bonds or other financial market instruments of Credit Suisse Group or any subsidiary thereof that allow for contingent compulsory conversion into Credit Suisse Group’s shares and that are issued in order to fulfill or maintain compliance with regulatory requirements of Credit Suisse Group and/or any subsidiary thereof (“**contingent convertible bonds**”).

Additionally, as of December 31, 2022, Credit Suisse Group had conversion capital in the amount of CHF 6,000,000 for the issuance of a maximum of 150,000,000 registered shares, to be fully paid in, with a par value of CHF 0.04 each, through the compulsory conversion upon occurrence of the trigger event of claims arising out of contingent convertible bonds of Credit Suisse Group and/or any subsidiary thereof, or other financial market instruments of Credit Suisse Group and/or any subsidiary thereof, that provide for a contingent or unconditional compulsory conversion into shares of Credit Suisse Group.

As of December 31, 2022, Credit Suisse Group, together with its subsidiaries, held 60,907,981 of its own shares, representing 1.52% of its issued shares. The Company’s shares are listed on the SIX Swiss Exchange under the symbol “CSGN” and, in the form of American Depositary Shares, on the New York Stock Exchange under the symbol “CS.”

Shareholder Rights

1. Dividend Rights

Under Swiss law, dividends may be paid out only if and to the extent a corporation has distributable profits from previous financial years or has freely distributable reserves, in each case, as presented on the annual statutory standalone balance sheet of the corporation. Further, dividends may only be fixed after the assignments have been made to the statutory retained earnings. In addition, at least 5% of the annual net profits of a corporation must be retained and booked as statutory retained earnings for so long as these retained earnings, together with the statutory capital reserve, amount to less than 20% of its paid-in share capital. The Company's reserves currently exceed this 20% threshold. In addition, an interim dividend may be paid out based on an interim account. The provisions above governing dividends also apply for such interim dividends. The external auditor must review the interim account before the shareholders approve the interim dividend."

The Board of Directors may propose that a dividend be paid out, but cannot itself set the dividend. The auditors must confirm that the dividend proposal of the Board of Directors conforms to statutory law and the Company's Articles of Association. Dividends may be paid out only after approval of the shareholders. In practice, the shareholders usually approve the dividend proposal of the Board of Directors. Dividends are usually due and payable after the shareholders' resolution approving the payment has been passed, but the shareholders can set a specific due date in the resolution itself. Under Swiss law, the statute of limitations in respect of dividend payments is five years.

2. Voting and Transfer

In principle, each share carries one vote at the Company's shareholders' meetings. The shares for which a single shareholder can directly or indirectly exercise voting rights for his or her own shares or as a proxy may not exceed 2% of the total outstanding share capital, except that such restrictions do not apply to (i) the exercise of voting rights by the independent proxy as elected by the shareholders' meeting, (ii) shares in respect of which the holder confirms to the Company in the application for registration in the Company's share register that he or she has acquired the shares in his or her name for his or her own account and further, the Board of Directors will propose to the Annual General Meeting 2023 ("AGM 2023") of the Company that the article in the Company's Articles of Association regarding this shall be amended to the effect that a further declaration is necessary that the shareholder confirms that there is no agreement on the redemption of the relevant shares and that they bear the economic risk associated with the shares and in respect of which the disclosure obligations pursuant to the Swiss Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading dated June 19, 2015, as amended and the relevant ordinances and regulations have been fulfilled or (iii) shares registered in the name of a nominee, provided the nominee furnishes the Company with the name, address and shareholdings of any beneficial owner or group of related beneficial owners on behalf of whom the nominee holds 0.5% or more of the Company's total outstanding share capital. The Board of Directors has the right to conclude agreements with nominees concerning both their disclosure requirement and the exercise of voting rights. Voting rights may be exercised only after a shareholder has been recorded in the share register as a shareholder with voting rights. In order to be registered in the share register, the purchaser must file a share registration form with the depository bank. The registration of shares in the Company's share register may be requested at any time. Failing such registration, the purchaser may not vote or participate in shareholders' meetings. Registration with voting rights is subject to certain restrictions as described below.

Legal entities, partnerships or groups of joint owners or other groups in which individuals or legal entities are related to one another through capital ownership or voting rights or have a common management or are otherwise interrelated, as well as individuals, legal entities or partnerships that act in concert (especially as a syndicate) with intent to evade the limitation on voting rights are considered as one shareholder or nominee.

Each shareholder, whether registered in the Company's share register or not, is entitled to receive the dividends approved by the shareholders. The same principle applies for capital repayments in the event of a reduction of the share capital, and for liquidation proceeds in the event the Company is dissolved or liquidated. Under Swiss law, a shareholder has no liability for capital calls, but is also not entitled to reclaim its capital contribution. Swiss law further requires the Company to apply the principle of equal treatment to all shareholders.

The Company may issue shares in the form of single certificates, global certificates, uncertificated securities and as intermediated securities in the sense of the Federal Act on Intermediated Securities as proposed to the AGM 2023. Intermediated securities in the sense of the Swiss Federal Act on Intermediated Securities dated October 3, 2008, as amended (the "FISA") are fungible claims or membership rights against an issuer that are credited to one or more securities accounts of a custodian within the meaning of the FISA, which must be a regulated entity such as a bank or a securities dealer. The transfer of intermediated securities representing the Company's shares, and the pledging of these intermediated securities as collateral, is governed by, and must be done in accordance with, the FISA. Transfer or pledging these intermediated securities as collateral by means of written assignment is not permitted.

The Company may convert issued shares from one form into another form at any time, without the approval of the shareholders. Shareholders have no right to demand that the Company's shares be converted from one form into another form. Shareholders may, however, at any time request that the Company issue a certification attesting to the shares that they hold according to the Company's share register.

3. Pre-Emptive Subscription Rights and Preferential Subscription Rights

Under Swiss law, any share issue, whether for cash or non-cash consideration, is subject to the prior approval of the shareholders. Shareholders have certain pre-emptive subscription rights (*Bezugsrechte*) to subscribe for new issues of shares as well as preferential subscription rights (*Vorwegzeichnungsrechte*) to subscribe for option bonds, convertible bonds or similar debt instruments with option or convertible rights in proportion to the nominal amount of shares held. A resolution adopted by a majority of at least two-thirds of the votes and the absolute majority of the share capital, in each case, represented at the shareholders' meeting, may limit or exclude pre-emptive subscription rights in certain limited circumstances.

Notwithstanding the above, the Company's Articles of Association provide that, in the case of contingent convertible bonds that provide for the issuance of new shares out of the Company's conditional share capital, in order for the Board of Directors to exclude shareholders' preferential subscription rights, the contingent convertible bonds must be issued on the national or international capital markets (including private placements with selected strategic investors). In such case, (i) the contingent convertible bonds must be issued at prevailing market conditions, (ii) the setting of the issue price of the new shares must take due account of the stock market price of the shares and/or comparable instruments priced by the market at the time of issue or time of conversion, and (iii) conditional conversion features may remain in place indefinitely.

The Board of Directors will propose to the AGM 2023 that the conditional and authorized capital of the Company will be cancelled and replaced with the so called "capital range" (*Kapitalband*). The new corporate law provides for the instrument of the capital range, which functionally corresponds, among other things, to the authorized capital under the former Swiss corporate law. Under the capital range, the general meeting of shareholders may authorize the board of directors to increase or reduce the share capital within a certain range—legally permissible is 150% (upper limit) to 50% (lower limit)—of the share capital entered in the commercial register at the time the capital range was introduced. The maximum authorization is limited by law to five years. The general meeting of shareholders has the right to withdraw shareholders' subscription rights directly or may delegate this right to the board of directors, provided that it expressly states the reasons for the withdrawal of subscription rights in the articles of association.

Shareholders' preferential subscription rights with regards to financial market instruments with conversion features will be granted. If a quick placement of contingent convertible bonds in large tranches is required, the Board of Directors is authorized to exclude shareholders' preferential subscription rights. In such circumstances, these contingent convertible bonds must be issued at prevailing market conditions.

The Board of Directors determines the issue price of the new shares taking due account of the stock market price of the shares and/or comparable instruments.

4. Liquidation

Under Swiss law and the Company's Articles of Association, the Company may be dissolved at any time, by way of liquidation or in the case of a merger in accordance with the Swiss Federal Act on Merger, Demerger, Transformation and Transfer of Assets dated October 3, 2003, as amended, based on a shareholders' resolution, which must be passed by (i) in the case of dissolution by way of liquidation, a supermajority of at least three-quarters of the votes cast at the shareholders' meeting, and (ii) in all other cases, a supermajority of at least two-thirds of the votes, and an absolute majority of the par value of the shares, represented at the shareholders' meeting. As the Company is the Swiss ultimate parent company of a financial group, the Swiss Financial Market Supervisory Authority FINMA ("**FINMA**") is the only competent authority to open restructuring or liquidation (bankruptcy) proceedings with respect to the Company. Under Swiss law, any surplus arising out of liquidation (after the settlement of all claims of all creditors) is distributed to shareholders in proportion to the paid-up par value of shares held.

Limitations on Share Ownership

There are no limitations under Swiss law or the Company's Articles of Association on the rights of shareholders to own shares, subject to certain notification and other review requirements in the case of the direct or indirect acquisition of 10% or more of the Company's banks' capital or voting rights. The rights of any shareholder to vote may, however, be restricted in certain circumstances as described above.

AMERICAN DEPOSITARY SHARES

General

The following description of the Company's American Depositary Shares is a summary and does not purport to be complete. The ordinary shares of the Company may be issued in the form of American Depositary Shares, each representing deposited ordinary shares (the "**Ordinary Shares**") of the Company. Each American Depositary Share represents one Ordinary Share deposited or subject to deposit under the Deposit Agreement (as hereafter defined) with a custodian for the Depositary (as hereafter defined) (the "**Custodian**").

The following is a summary of the material terms of the Amended and Restated Deposit Agreement dated as of November 22, 2016 among the Company, The Bank of New York Mellon (the "**Depositary**") and all other Owners and Holders from time to time of American Depositary Shares issued thereunder (the "**Deposit Agreement**"). The summaries and descriptions below do not purport to be complete statements of the relevant provisions of the Deposit Agreement, and are entirely qualified by that document. Please refer to Exhibit 1 on Form F-6 (File No. 333-267962 filed with the SEC on October 20, 2022). Copies of the Deposit Agreement are also available for inspection at the office of the Depositary at 240 Greenwich Street, New York, NY 10286, and at the office of the Custodian.

Terms used but not defined herein have the meaning given to them in the Deposit Agreement.

Voting Rights

Upon receipt from the Company of notice of any meeting of holders of Ordinary Shares at which holders of Ordinary Shares will be entitled to vote, or a solicitation of proxies or consents of holders of Ordinary Shares, if requested in writing by the Company, the Depositary shall, as soon as practicable thereafter, Disseminate to the Owners a notice, the form of which shall be approved by the Company in advance (such approval not to be unreasonably withheld), that shall contain (i) the information (including, without limitation, solicitation materials) contained in the notice of meeting received by the Depositary, (ii) a statement that the Owners as of the close of business on a specified record date will be entitled, subject to any applicable provision of Swiss law and of the Articles of Association or similar documents of the Company, to instruct the Depositary as to the exercise of the voting rights pertaining to the amount of Ordinary Shares represented by their respective American Depositary Shares, (iii) a statement as to the manner in which those instructions may be given and (iv) the last date on which the Depositary will accept instructions (the "**Instruction Cutoff Date**").

Upon the written request of an Owner of American Depositary Shares, as of the date of the request or, if a record date was specified by the Depositary, as of that record date, received on or before any Instruction Cutoff Date established by the Depositary, the Depositary may, and if the Depositary sent a notice under the preceding paragraph shall, endeavor, in so far as practicable, to vote or cause to be voted the amount of deposited Ordinary Shares represented by those American Depositary Shares in accordance with the instructions set forth in that request. The Depositary shall not vote or attempt to exercise the right to vote that attaches to the Deposited Securities, for purposes of establishing a quorum or otherwise, other than in accordance with instructions given by Owners and received by the Depositary, or exercise any discretion as to voting Deposited Securities.

There can be no assurance that Owners generally or any Owner in particular will receive the notice described above in time to enable Owners to give instructions to the Depositary prior to the Instruction Cutoff Date.

In order to give Owners a reasonable opportunity to instruct the Depositary as to the exercise of voting rights relating to Ordinary Shares, if the Company will request the Depositary to Disseminate a notice as described above, the Company shall give the Depositary notice of the meeting, details concerning the matters to be voted upon and copies of materials to be made available to holders of Ordinary Shares in connection with the meeting not less than 30 days prior to the meeting date.

The Company has informed the Depositary that its Articles of Association and Swiss law require disclosures as a condition of voting by persons holding shares of the Company's capital stock in excess of a specified threshold amount. If the Company instructs the Depositary to send a notice of a meeting of holders of Ordinary Shares as described above, it shall, at the same time, notify the Depositary of the amount of Ordinary Shares that, at the time, constitutes two percent of the Company's outstanding share capital. If the amount of Ordinary Shares held under the Deposit Agreement as of the record date set by the Depositary with respect to that meeting exceeds the amount specified in the Company's notice, the Depositary shall include in its notice to Owners a statement that an Owner may not give voting instructions on its own behalf if it beneficially owns an amount of Ordinary Shares (including Ordinary Shares represented by American Depositary Shares), and a Holder may not give voting instructions as proxy or substitute proxy of an Owner if it beneficially owns an amount of Ordinary Shares (including Ordinary Shares represented by American Depositary Shares),

that constitutes 0.5% or more of the Company's share capital (being one quarter of the amount of Ordinary Shares specified in the Company's notice to the Depositary) unless that Owner, or that Holder, as the case may be, discloses to the Depositary the name, address and total beneficial ownership of Company share capital of that Owner or Holder, as the case may be. For the avoidance of doubt, under no circumstances shall the Depositary be entitled to exercise any discretion as to voting or vote on behalf of any Owner or Holder except in accordance with instructions received from that Owner or Holder. The Depositary shall forward to the Company each disclosure it receives under this paragraph, but will have no duty to verify the accuracy of any disclosure of that kind or any duty or liability if an Owner or Holder fails to disclose as required by this paragraph.

Distributions

Whenever the Depositary receives any cash dividend or other cash distribution on Deposited Securities, the Depositary shall, subject to the provisions of Section 4.5 of the Deposit Agreement, as promptly as practicable, convert that dividend or other distribution into Dollars and distribute the amount thus received (net of the fees and expenses of the Depositary as provided in Section 5.9 of the Deposit Agreement) to the Owners entitled thereto, in proportion to the number of American Depositary Shares representing those Deposited Securities held by them respectively; provided, however, that if the Custodian or the Depositary shall be required by applicable law to withhold and does withhold from that cash dividend or other cash distribution an amount on account of taxes or other governmental charges, the amount distributed to the Owners of the American Depositary Shares representing those Deposited Securities shall be reduced accordingly. However, the Depositary will not pay any Owner a fraction of one cent, but will round each Owner's entitlement to the nearest whole cent.

The Company or its agent will remit to the appropriate governmental agency in each applicable jurisdiction all amounts withheld and owing to such agency. The Depositary will, as promptly as practicable, forward to the Company or its agent such information from its records as the Company may reasonably request to enable the Company or its agent to file necessary reports with governmental agencies. Each Owner and Holder agrees to indemnify the Company, the Depositary, the Custodian and their respective directors, employees, agents and affiliates for, and hold each of them harmless against, any claim by any governmental authority with respect to taxes, additions to tax, penalties or interest arising out of any refund of taxes, reduced withholding at source or other tax benefit received by it.

If a cash distribution would represent a return of all or substantially all the value of the Deposited Securities underlying American Depositary Shares, the Depositary may require surrender of those American Depositary Shares and may require payment of or deduct the fee for surrender of American Depositary Shares (whether or not it is also requiring surrender of American Depositary Shares) as a condition of making that cash distribution. A distribution of that kind shall be a Termination Option Event.

Subject to the provisions of Sections 4.11 and 5.9 of the Deposit Agreement, whenever the Depositary receives any distribution other than a distribution described in Section 4.1, 4.3 or 4.4 of the Deposit Agreement on Deposited Securities (but not in exchange for or in conversion or in lieu of Deposited Securities), the Depositary shall, as promptly as practicable, cause the securities or property received by it to be distributed to the Owners entitled thereto, after deduction or upon payment of any fees and expenses of the Depositary and any taxes or other governmental charges, in proportion to the number of American Depositary Shares representing such Deposited Securities held by them respectively, in any manner that the Depositary reasonably deems equitable and practicable for accomplishing that distribution (which may be a distribution of depository shares representing the securities received); provided, however, that if in the reasonable opinion of the Depositary such distribution cannot be made proportionately among the Owners entitled thereto, or if for any other reason (including, but not limited to, any requirement that the Company or the Depositary withhold an amount on account of taxes or other governmental charges or that securities received must be registered under the Securities Act of 1933 in order to be distributed to Owners or Holders) the Depositary reasonably deems such distribution not to be lawful and feasible, the Depositary may, after consultation with the Company to the extent practicable, adopt such other method as it may deem equitable and practicable for the purpose of effecting such distribution, including, but not limited to, the public or private sale of the securities or property thus received, or any part thereof, and distribution of the net proceeds of any such sale (net of the fees and expenses of the Depositary as provided in Section 5.9 of the Deposit Agreement) to the Owners entitled thereto, all in the manner and subject to the conditions set forth in Section 4.1 of the Deposit Agreement. The Depositary may withhold any distribution of securities under Section 4.2 of the Deposit Agreement if it has not received reasonably satisfactory assurances from the Company that the distribution does not require registration under the Securities Act of 1933. The Depositary may sell, by public or private sale, an amount of securities or other property it would otherwise distribute under Section 4.2 of the Deposit Agreement that is sufficient to pay its fees and expenses in respect of that distribution.

If a distribution under Section 4.2 of the Deposit Agreement would represent a return of all or substantially all the value of the Deposited Securities underlying American Depositary Shares, the Depositary may require surrender of those American Depositary Shares and may require payment of or deduct the fee for surrender of American Depositary Shares (whether or not it is also requiring

surrender of American Depositary Shares) as a condition of making that distribution. A distribution of that kind shall be a Termination Option Event.

Whenever the Depositary receives any distribution on Deposited Securities consisting of a dividend in, or free distribution of, Ordinary Shares, the Depositary may, and shall, if the Company so requests in writing, deliver, as promptly as practicable, to the Owners entitled thereto, in proportion to the number of American Depositary Shares representing those Deposited Securities held by them respectively, an aggregate number of American Depositary Shares representing the amount of Ordinary Shares received as that dividend or free distribution, subject to the terms and conditions of the Deposit Agreement with respect to the deposit of Shares and issuance of American Depositary Shares, including withholding of any tax or governmental charge as provided in Section 4.11 of the Deposit Agreement and payment of the fees and expenses of the Depositary as provided in Section 5.9 of the Deposit Agreement (and the Depositary may sell, by public or private sale, an amount of the Ordinary Shares received (or American Depositary Shares representing those Ordinary Shares) sufficient to pay its fees and expenses in respect of that distribution). In lieu of delivering fractional American Depositary Shares, the Depositary may sell the amount of Ordinary Shares represented by the aggregate of those fractions (or American Depositary Shares representing those Ordinary Shares) and distribute the net proceeds, all in the manner and subject to the conditions described in Section 4.1 of the Deposit Agreement. If and to the extent that additional American Depositary Shares are not delivered and Ordinary Shares or American Depositary Shares are not sold, each American Depositary Share shall thenceforth also represent the additional Ordinary Shares distributed on the Deposited Securities represented thereby.

If the Company declares a distribution in which holders of Deposited Securities have a right to elect whether to receive cash, Ordinary Shares or other securities or a combination of those things, or a right to elect to have a distribution sold on their behalf, the Depositary shall, after consultation with the Company, and to the extent permitted by applicable law, make that right of election available for exercise by Owners in any manner the Depositary considers to be lawful and practical. As a condition of making a distribution election right available to Owners, the Depositary may require satisfactory assurances from the Company that doing so does not require registration of any securities under the Securities Act of 1933. If a right of election is made available to Owners and an Owner elects to receive the proposed dividend (x) in cash, the dividend shall be distributed upon the terms described in Section 4.1 of the Deposit Agreement, or (y) in American Depositary Shares, the dividend shall be distributed upon the terms described in Section 4.3 of the Deposit Agreement. Nothing herein shall obligate the Depositary or the Company to make available to Owners a method to receive the elective dividend in Ordinary Shares (rather than American Depositary Shares). There can be no assurance that Owners generally, or any Owner in particular, will be given the opportunity to receive elective distributions on the same terms and conditions as the holders of Ordinary Shares.

Reports and Other Communications

On or before the first date on which the Company gives notice, by publication or otherwise, of any meeting of holders of Ordinary Shares, or of any adjourned meeting of those holders, or of the taking of any action in respect of any cash or other distributions or the granting of any rights, the Company agrees to transmit to the Depositary and the Custodian a copy of the notice thereof in English but otherwise in the form given or to be given to holders of Ordinary Shares.

The Company will arrange for the translation into English, if not already in English, to the extent required pursuant to any regulations of the Commission, and the prompt transmittal by the Company to the Depositary and the Custodian of all notices and any other reports and communications which are made generally available by the Company to holders of its Ordinary Shares. If requested in writing by the Company, the Depositary will, as promptly as practicable, Disseminate, at the Company's expense, those notices, reports and communications to all Owners or otherwise make them available to Owners in a manner that the Company specifies as substantially equivalent to the manner in which those communications are made available to holders of Ordinary Shares and compliant with the requirements of any securities exchange on which the American Depositary Shares are listed. The Company will timely provide the Depositary with the quantity of such notices, reports, and communications, as requested by the Depositary from time to time, in order for the Depositary to effect that Dissemination.

Rights

(a) If rights are granted to the Depositary in respect of deposited Ordinary Shares to purchase additional Ordinary Shares or other securities, the Company and the Depositary shall endeavor to consult as to the actions, if any, the Depositary should take in connection with that grant of rights. The Depositary may, to the extent deemed by it to be lawful and practical (i) if requested in writing by the Company, grant to all or certain Owners rights to instruct the Depositary to purchase the securities to which the rights relate and deliver those securities or American Depositary Shares representing those securities to Owners, (ii) if requested in writing by the Company, deliver the rights to or to the order of certain Owners or (iii) sell the rights to the extent practicable and distribute the net

proceeds of that sale to Owners entitled to those proceeds. To the extent rights are not exercised, delivered or disposed of under (i), (ii) or (iii) above, the Depositary shall permit the rights to lapse unexercised.

(b) If the Depositary will act under (a)(i) above, the Company and the Depositary will enter into a separate agreement setting forth the conditions and procedures applicable to the particular offering. Upon instruction from an applicable Owner in the form the Depositary specified and upon payment by that Owner to the Depositary of an amount equal to the purchase price of the securities to be received upon the exercise of the rights, the Depositary shall, on behalf of that Owner, exercise the rights and purchase the securities. The purchased securities shall be delivered to, or as instructed by, the Depositary. The Depositary shall (i) deposit the purchased Ordinary Shares under the Deposit Agreement and deliver American Depositary Shares representing those Ordinary Shares to that Owner or (ii) deliver or cause the purchased Ordinary Shares or other securities to be delivered to or to the order of that Owner. The Depositary will not act under (a)(i) above unless the offer and sale of the securities to which the rights relate are registered under the Securities Act of 1933 or the Depositary has received an opinion of United States counsel that is reasonably satisfactory to it to the effect that those securities may be sold and delivered to the applicable Owners without registration under the Securities Act of 1933.

(c) If the Depositary will act under (a)(ii) above, the Company and the Depositary will enter into a separate agreement setting forth the conditions and procedures applicable to the particular offering. Upon (i) the request of an applicable Owner to deliver the rights allocable to the American Depositary Shares of that Owner to an account specified by that Owner to which the rights can be delivered and (ii) receipt of such documents as the Company and the Depositary agreed to require to comply with applicable law, the Depositary will deliver those rights as requested by that Owner.

(d) If the Depositary will act under (a)(iii) above, the Depositary will use reasonable efforts to sell the rights in proportion to the number of American Depositary Shares held by the applicable Owners and pay the net proceeds to the Owners otherwise entitled to the rights that were sold, upon an averaged or other practical basis without regard to any distinctions among such Owners because of exchange restrictions or the date of delivery of any American Depositary Shares or otherwise.

(e) Payment or deduction of the fees of the Depositary as provided in Section 5.9 of the Deposit Agreement and payment or deduction of the expenses of the Depositary and any applicable taxes or other governmental charges shall be conditions of any delivery of securities or payment of cash proceeds under Section 4.4 of the Deposit Agreement.

(f) The Depositary shall not be responsible for any failure to determine that it may be lawful or feasible to make rights available to or exercise rights on behalf of Owners in general or any Owner in particular, or to sell rights.

Replacement of Deposited Securities

If the Depositary is notified of or there occurs any change in nominal value or any subdivision, combination or any other reclassification of the Deposited Securities or any recapitalization, reorganization, sale of assets substantially as an entirety, merger or consolidation affecting the issuer of the Deposited Securities or to which it is a party that is mandatory and binding on the Depositary as a holder of Deposited Securities and, as a result, securities or other property have been or will be delivered in exchange, conversion, replacement or in lieu of, Deposited Securities (a “**Replacement**”), the Depositary shall, if required, surrender the old Deposited Securities affected by that Replacement of Ordinary Shares and hold, as new Deposited Securities under the Deposit Agreement, the new securities or other property delivered to it in that Replacement. However, the Depositary may elect to sell those new Deposited Securities if in the opinion of the Depositary it is not lawful or not practical for it to hold those new Deposited Securities under the Deposit Agreement because those new Deposited Securities may not be distributed to Owners without registration under the Securities Act of 1933 or for any other reason, at public or private sale, at such places and on such terms as it reasonably deems proper and proceed as if those new Deposited Securities had been Redeemed as described in the Deposit Agreement. A Replacement shall be a Termination Option Event.

Amendment and Termination

The form of the Receipts and any provisions of the Deposit Agreement may at any time and from time to time be amended by written agreement between the Company and the Depositary without the consent of Owners or Holders in any respect that they may deem necessary or desirable. Any amendment that would impose or increase any fees or charges (other than taxes and other governmental charges, registration fees, cable, telex or facsimile transmission costs, delivery costs or other such expenses), or that would otherwise prejudice any substantial existing right of Owners, shall, however, not become effective as to outstanding American Depositary Shares until the expiration of 30 days after notice of that amendment has been Disseminated to the Owners of outstanding American Depositary Shares. Every Owner and Holder, at the time any amendment so becomes effective, shall be deemed, by continuing to hold American Depositary Shares or any interest therein, to consent and agree to that amendment and to be bound by the Deposit

Agreement as amended thereby. Upon the effectiveness of an amendment to the form of Receipt, including a change in the number of Ordinary Shares represented by each American Depositary Share, the Depositary may call for surrender of Receipts to be replaced with new Receipts in the amended form or call for surrender of American Depositary Shares to effect that change of ratio. In no event shall any amendment impair the right of the Owner to surrender American Depositary Shares and receive delivery of the Deposited Securities represented thereby, except in order to comply with mandatory provisions of applicable law. Notwithstanding the foregoing, if any governmental body should adopt new laws, rules or regulations which would require amendment or supplementation of the Deposit Agreement and the Receipts to ensure compliance therewith, the Company and the Depositary may amend or supplement the Deposit Agreement and the Receipts at any time in accordance with such changed laws, rules or regulations. Such amendment or supplement to the Deposit Agreement in such circumstances may become effective before a notice of such amendment or supplement is given to Owners or within any other period of time as required for compliance with such laws, rules or regulations.

The Company may initiate termination of the Deposit Agreement by notice to the Depositary. The Depositary may initiate termination of the Deposit Agreement if (i) at any time 60 days shall have expired after the Depositary delivered to the Company a written resignation notice and a successor depositary has not been appointed and accepted its appointment as provided in Section 5.4 of the Deposit Agreement, (ii) an Insolvency Event or Delisting Event occurs with respect to the Company or (iii) a Termination Option Event has occurred. If termination of the Deposit Agreement is initiated, the Depositary shall Disseminate a notice of termination to the Owners of all American Depositary Shares then outstanding setting a date for termination (the “**Termination Date**”), which shall be at least 90 days after the date of that notice, and the Deposit Agreement shall terminate on that Termination Date.

After the Termination Date, the Company shall be discharged from all obligations under the Deposit Agreement except for its obligations to the Depositary under Sections 5.8, 5.9 and 7.6 of the Deposit Agreement.

At any time after the Termination Date, the Depositary may sell the Deposited Securities then held under the Deposit Agreement and may thereafter hold uninvested the net proceeds of any such sale, together with any other cash then held by it hereunder, unsegregated and without liability for interest, for the pro rata benefit of the Owners of American Depositary Shares that remain outstanding, and those Owners will be general creditors of the Depositary with respect to those net proceeds and that other cash. After making that sale, the Depositary shall be discharged from all obligations under the Deposit Agreement, except (i) to account for the net proceeds and other cash (after deducting, in each case, the fee of the Depositary for the surrender of American Depositary Shares, any expenses for the account of the Owner of such American Depositary Shares in accordance with the terms and conditions of the Deposit Agreement and any applicable taxes or governmental charges) and (ii) for its obligations under Section 5.8 of the Deposit Agreement and (iii) to act as provided below.

After the Termination Date, the Depositary shall continue to receive dividends and other distributions pertaining to Deposited Securities (that have not been sold), may sell rights and other property as provided in the Deposit Agreement and shall deliver Deposited Securities (or sale proceeds) upon surrender of American Depositary Shares (after payment or upon deduction, in each case, of the fee of the Depositary for the surrender of American Depositary Shares, any expenses for the account of the Owner of those American Depositary Shares in accordance with the terms and conditions of the Deposit Agreement and any applicable taxes or governmental charges). After the Termination Date, the Depositary shall not accept deposits of Ordinary Shares or deliver American Depositary Shares. After the Termination Date, (i) the Depositary may refuse to accept surrenders of American Depositary Shares for the purpose of withdrawal of Deposited Securities (that have not been sold) if in its judgment the requested withdrawal would interfere with its efforts to sell the Deposited Securities, (ii) the Depositary will not be required to deliver cash proceeds of the sale of Deposited Securities until all Deposited Securities have been sold and (iii) the Depositary may discontinue the registration of transfers of American Depositary Shares and suspend the distribution of dividends and other distributions on Deposited Securities to the Owners and need not give any further notices or perform any further acts under the Deposit Agreement except as otherwise provided in the Deposit Agreement.

Books of Depositary and List of Owners

The Depositary shall make available for inspection by Owners at its Office any reports, notices and other communications, including any proxy solicitation material, received from the Company which are both (a) received by the Depositary as the holder of the Deposited Securities and (b) made generally available to the holders of those Deposited Securities by the Company. The Company shall furnish reports and communications, including any proxy soliciting material to which this Section applies, to the Depositary in English, to the extent those materials are required to be translated into English pursuant to any regulations of the Commission.

Upon written request by the Company, the Depositary shall, as promptly as practicable, at the expense of the Company, furnish to it a list, as of a recent date, of the names, addresses and American Depositary Share holdings of all Owners, as such information is reflected in the Depositary's records.

Limitations on Delivery, Transfer and Surrender

As a condition precedent to the delivery, registration of transfer or surrender of any American Depositary Shares or split-up or combination of any Receipt or withdrawal of any Deposited Securities, the Depositary, Custodian or Registrar may require payment from the depositor of Ordinary Shares or the presenter of the Receipt or instruction for registration of transfer or surrender of American Depositary Shares not evidenced by a Receipt of a sum sufficient to reimburse it for any tax or other governmental charge and any stock transfer or registration fee with respect thereto (including any such tax or charge and fee with respect to Ordinary Shares being deposited or withdrawn) and payment of any applicable fees as provided in the Deposit Agreement, may require the production of proof satisfactory to it as to the identity and genuineness of any signature and may also require compliance with any regulations the Depositary may establish consistent with the provisions of the Deposit Agreement, including, without limitation, Section 2.6 of the Deposit Agreement.

The delivery of American Depositary Shares against deposit of Ordinary Shares generally or against deposit of particular Ordinary Shares may be suspended, or the registration of transfer of American Depositary Shares in particular instances may be refused, or the registration of transfer of outstanding American Depositary Shares generally may be suspended, during any period when the transfer books of the Depositary are closed, or if any such action is deemed necessary or advisable by the Depositary or the Company at any time or from time to time because of any requirement of law or of any government or governmental body or commission, or under any provision of the Deposit Agreement, or for any other reason. Notwithstanding anything to the contrary in the Deposit Agreement, the surrender of outstanding American Depositary Shares and withdrawal of Deposited Securities may not be suspended, subject only to (i) temporary delays caused by closing of the transfer books of the Depositary or the Company or the Foreign Registrar, if applicable, or the deposit of Ordinary Shares in connection with voting at a shareholders' meeting, or the payment of dividends, (ii) the payment of fees, taxes and similar charges, and (iii) compliance with any U.S. or foreign laws or governmental regulations relating to the American Depositary Shares or to the withdrawal of the Deposited Securities.

The Depositary shall not knowingly accept for deposit under the Deposit Agreement any Ordinary Shares that, at the time of deposit, are Restricted Securities.

The Depositary shall notify the Company, as promptly as practicable, of any suspension or refusal under Section 2.6 of the Deposit Agreement that is outside the ordinary course of business.

Limitations on Liability

Neither the Depositary nor the Company shall have any obligation or be subject to any liability under the Deposit Agreement to any Holder of American Depositary Shares, but only to the Owner.

Neither the Depositary nor the Company nor any of their respective officers, directors, employees, agents or affiliates shall incur any liability to any Owner or Holder (i) if by reason of any provision of any present or future law or regulation of the United States, Switzerland or any other country, or of any governmental or regulatory authority or stock exchange, or by reason of any provision, present or future, of the Articles of Association or similar document of the Company, or by reason of any provision of any securities issued or distributed by the Company, or any offering or distribution thereof, or by reason of any act of God or war or terrorism or other circumstances beyond its control, the Depositary or the Company is prevented from, forbidden to or delayed in, or could be subject to any civil or criminal penalty on account of doing or performing and therefore does not do or perform, any act or thing that, by the terms of the Deposit Agreement or the Deposited Securities, it is provided shall be done or performed, (ii) by reason of any exercise of, or failure to exercise, any discretion provided for in the Deposit Agreement (including any determination by the Depositary to take, or not take, any action that the Deposit Agreement provides the Depositary may take), (iii) for the inability of any Owner or Holder to benefit from any distribution, offering, right or other benefit that is made available to holders of Deposited Securities but is not, under the terms of the Deposit Agreement, made available to Owners or Holders, or (iv) for any special, consequential or punitive damages for any breach of the terms of the Deposit Agreement. Where, by the terms of a distribution to which Section 4.1, 4.2 or 4.3 of the Deposit Agreement applies, or an offering to which Section 4.4 of the Deposit Agreement applies, or for any other reason, that distribution or offering may not be made available to Owners, and the Depositary may not dispose of that distribution or offering on behalf of Owners and make the net proceeds available to Owners, then the Depositary shall not make that distribution or offering available to Owners, and shall allow any rights, if applicable, to lapse.

Neither the Company nor any of its officers, directors, employees, agents or affiliates assumes any obligation nor shall it or any of them be subject to any liability under the Deposit Agreement to any Owner or Holder, except that the Company agrees to perform its obligations specifically set forth in the Deposit Agreement without negligence or bad faith.

Neither the Depositary nor any of its officers, directors, employees, agents or affiliates assumes any obligation nor shall it or any of them be subject to any liability under the Deposit Agreement to any Owner or Holder (including, without limitation, liability with respect to the validity or worth of the Deposited Securities), except that the Depositary agrees to perform its obligations specifically set forth in the Deposit Agreement without negligence or bad faith.

Neither the Depositary nor the Company nor any of their respective officers, directors, employees, agents or affiliates shall be under any obligation to appear in, prosecute or defend any action, suit or other proceeding in respect of any Deposited Securities or in respect of the American Depositary Shares on behalf of any Owner or Holder or any other person.

Each of the Depositary and the Company and their respective officers, directors, employees, agents or affiliates may rely, and shall be protected in relying upon, any written notice, request, direction or other document believed by it or them to be genuine and to have been signed or presented by the proper party or parties.

Neither the Depositary nor the Company nor any of their respective officers, directors, employees, agents or affiliates shall be liable for any action or non-action by it or them in reliance upon the advice of or information from legal counsel, accountants, any person presenting Ordinary Shares for deposit, any Owner or any other person believed by it or them in good faith to be competent to give such advice or information.

The Depositary shall not be liable for any acts or omissions made by a successor depositary whether in connection with a previous act or omission of the Depositary or in connection with any matter arising wholly after the removal or resignation of the Depositary, provided that in connection with the issue out of which such potential liability arises the Depositary performed its obligations without negligence or bad faith while it acted as Depositary.

The Depositary shall not be liable for the acts or omissions of any securities depository, clearing agency or settlement system in connection with or arising out of book-entry settlement of American Depositary Shares or Deposited Securities or otherwise.

In the absence of bad faith on its part, the Depositary shall not be responsible for any failure to carry out any instructions to vote any of the Deposited Securities, or for the manner in which any such vote is cast or the effect of any such vote.

The Depositary shall have no duty to make any determination or provide any information as to the tax status of the Company or any liability for any tax consequences that may be incurred by Owners or Holders as a result of owning or holding American Depositary Shares.

No disclaimer of liability under the Securities Act of 1933 is intended by any provision of the Deposit Agreement.

EXCHANGE-TRADED NOTES

The following description of Credit Suisse AG's Exchange-Traded Notes (the "ETNs") is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to (i) the senior indenture, dated March 29, 2007, between Credit Suisse AG (formerly Credit Suisse) and The Bank of New York Mellon (formerly known as the Bank of New York) (the "Trustee") (as may be further amended or supplemented from time to time, the "Indenture"), which is incorporated by reference as an exhibit to the Annual Report on Form 20-F of which this Exhibit 2.2 is a part and (ii) each of the notes or supplemental indentures to the Indenture under which each ETN was issued, each of which is incorporated by reference as an exhibit to the Form 8-A filed for such ETN. We encourage you to read the Indenture together with the relevant notes, supplemental indentures and pricing supplements for each ETN.

The ETNs are part of a series of debt securities entitled "Senior Medium-Term Notes" (the "Medium-Term Notes") that may be issued under the Indenture from time to time. The ETNs are senior, unsecured and unsubordinated debt obligations of the Issuer. There is no limitation on the aggregate principal amount of securities which may be authenticated and delivered under the Indenture, and such securities shall rank equally and pari passu with all other unsecured and unsubordinated debt of the Issuer, including the ETNs.

Unless otherwise specified, references to "holders" in this section mean those who own the ETNs registered in their own names, on the books that we or the Trustee, or any successor Trustee, as applicable, maintain for this purpose, and not those who own beneficial interests in the ETNs registered in street name or in the ETNs issued in book-entry form through The Depository Trust Company ("DTC") or another depository.

References to "we," "us" or "our" refer to the Issuer.

- Description of Credit Suisse S&P MLP Index Exchange Traded Notes due December 4, 2034 Linked to the S&P MLP Index
- Description of Credit Suisse X-Links[®] Gold Shares Covered Call ETNs due February 2, 2033
- Description of Credit Suisse X-Links Silver Shares Covered Call ETNs due April 21, 2033
- Description of Credit Suisse X-Links[®] Crude Oil Shares Covered Call ETNs due April 24, 2037

Description of Credit Suisse S&P MLP Index Exchange Traded Notes due December 4, 2034 Linked to the S&P MLP Index

Defined terms used within this subsection are defined only with respect to the ETNs listed in the subsection heading above and described within this subsection.

General

The return on the Credit Suisse S&P MLP Index Exchange Traded Notes due December 4, 2034 (the "ETNs") will be based on the price return version of the S&P MLP Index (the "Index"), as reflected by their Indicative Value, calculated as set forth below. The Index includes both master limited partnerships ("MLPs") and limited liability companies ("LLCs"), which have a similar legal structure to MLPs and share the same tax characteristics as MLPs (collectively, the "Index Constituents"), that trade on major U.S. exchanges. The Index Constituents are classified in the GICS[®] Energy Sector and GICS[®] Gas Utilities Industry according to the Global Industry Classification Standard[®] ("GICS"). The Index is subject to the policies of S&P Dow Jones Indices LLC (the "Index Sponsor") and is subject to the Index Sponsor's discretion, including with respect to the implementation of, and changes to, the rules governing the Index methodology.

Inception, Issuance and Maturity

The "Inception Date" of the ETNs is December 2, 2014. The "Initial Settlement Date" of the ETNs is December 5, 2014. The scheduled "Maturity Date" is initially December 4, 2034, but the maturity of the ETNs may be extended at our option for up to two additional five-year periods.

Intraday Indicative Value

The “**Intraday Indicative Value**” of the ETNs is designed to reflect the economic value of the ETNs at a given time. The Intraday Indicative Value of the ETNs will be calculated and published by the IV Calculation Agent every fifteen (15) seconds on each Trading Day during normal trading hours under the Bloomberg ticker symbol “MLPOIV” and under the Yahoo! Finance ticker symbol “^MLPO-IV” so long as no Market Disruption Event has occurred or is continuing and will be disseminated over the consolidated tape or other major market data vendor. The Intraday Indicative Value at any time is based on the most recent intraday level of the Index. It is calculated using the same formula as the Closing Indicative Value, except that instead of using the Closing Level of the Index, the calculation is based on the most recent reported level of the Index at the particular time (or, if the day on which such time occurs is not a Trading Day, as determined by the Calculation Agent).

At any time at which a Market Disruption Event has occurred and is continuing, there shall be no Intraday Indicative Value. If the Intraday Indicative Value of the ETNs is equal to or less than zero at any time or the Closing Indicative Value is equal to zero on any Trading Day, the Closing Indicative Value of the ETNs on that day, and all future days, will be zero.

Neither the Intraday Indicative Value nor the Closing Indicative Value calculation is intended as a price or quotation, or as an offer or solicitation for the purchase, sale, redemption, a call or termination of a holder’s ETNs, nor will it reflect hedging or transaction costs, credit considerations, market liquidity or bid-offer spreads. The NYSE Arca is responsible for computing and disseminating the ETN’s Indicative Values. Published levels of the Index from the Index Sponsor may occasionally be subject to delay or postponement. Any such delays or postponements will affect the current level of the Index and therefore the Intraday Indicative Value of the ETNs. The actual trading price of the ETNs may be different from their Intraday Indicative Value or Closing Indicative Value.

The actual trading price of the ETNs at any time may vary significantly from the Intraday Indicative Value at such time. The trading prices of the ETNs at any time is the price that holders may be able to sell their ETNs in the secondary market at such time, if one exists.

The trading price of the ETNs at any time is the price at which holders may be able to sell their ETNs in the secondary market at such time, if one exists. In the absence of an active secondary market for the ETNs, the last reported trading price may not reflect the actual price at which holders may be able to sell their ETNs at a particular time. The trading price of the ETNs at any time may vary significantly from the Intraday Indicative Value of and the Closing Indicative Value of the ETNs at such time due to, among other things, imbalances of supply and demand, lack of liquidity, transaction costs, credit considerations and bid-offer spreads. The closing price of the ETNs will be published on each Trading Day under the ticker symbol “MLPO”. Any premium or discount may be reduced or eliminated at any time. Paying a premium purchase price of the ETNs over the Intraday Indicative Value or the Closing Indicative Value of the ETNs could lead to significant losses in the event holders sell their ETNs at a time when such premium has declined or is no longer present in the market place or at maturity or upon early redemption or upon a call of the ETNs, in which case holders will receive a cash payment based on the Closing Indicative Value on the relevant Valuation Date(s).

The ETNs may be redeemed or called, subject to the conditions described herein.

As discussed in “Payment Upon Early Redemption” below, holders may, subject to certain restrictions, provide a Redemption Notice on any Business Day during the term of the ETNs, starting on the Business Day following the Inception Date until November 21, 2034 (or, if the maturity of the ETNs is extended, five scheduled Trading Days prior to the scheduled Final Valuation Date, as extended).

Holders must offer for early redemption at least 10,000 ETNs at one time in order to exercise the right to cause us to redeem the ETNs on any Redemption Settlement Date (the “**Minimum Redemption Amount**”). We reduced the Minimum Redemption Amount from 50,000 to 10,000 ETNs on December 6, 2022. We or CSSU may, at any time and in our sole discretion, make further modifications to the Minimum Redemption Amount, including, among others, to reinstate the minimum redemption amount of 50,000 ETNs for all redemption dates after such further modification. Any such modification will be applied on a consistent basis for all holders of the ETNs at the time the modification becomes effective. If the ETNs undergo a split or reverse split, the minimum number of ETNs needed to exercise the right to cause us to redeem the ETNs will remain the same.

If the number of ETNs being redeemed is less than the Redemption Liquidity Threshold (a “**Small Redemption**”), the “**Redemption Settlement Amount**” will be a cash payment per ETN equal to the greater of (a) zero and (b) (1) the Closing Indicative Value on the applicable Redemption Valuation Date, minus (2) the Redemption Fee Amount.

If the number of ETNs being redeemed is equal to or greater than the Redemption Liquidity Threshold (a “**Large Redemption**”), the Redemption Settlement Amount will be a cash payment per ETN equal to the greater of (a) zero and (b) (1) the arithmetic average,

as determined by the Calculation Agent, of the Closing Indicative Values during the Redemption Valuation Period, minus (2) the Redemption Fee Amount.

A holder may exercise its early redemption right by causing its broker or other person with whom it holds its ETNs to deliver a Redemption Notice (as defined herein) to Credit Suisse.

In the case of a Small Redemption, and where the Redemption Notice is delivered prior to 4:00 p.m. New York City time on any Business Day, the immediately following Trading Day will be the applicable “**Small Redemption Valuation Date**”. If the Redemption Notice is delivered at or after 4:00 p.m. New York City time, the Small Redemption Valuation Date will be the second following Trading Day.

In the case of a Large Redemption, and where the Redemption Notice is delivered prior to 4:00 p.m. New York City time on any Business Day, the immediately following Trading Day will be the first day of the Redemption Valuation Period. If the Redemption Notice is delivered at or after 4:00 p.m. New York City time, the first day of the Redemption Valuation Period will be the second following Trading Day. In either case, the Large Redemption Valuation Date will be the last day of the Redemption Valuation Period.

We have the right to call the ETNs in whole or in part on any Trading Day during the term of the ETNs by providing notice to holders of the ETNs starting on the Trading Day following the Inception Date until the twentieth (20th) calendar day preceding the Maturity Date (the “**Call Notice**”). We will provide notice at least twenty (20) calendar days prior to the Call Settlement Date. Upon exercise of our call right, holders will be entitled to receive a cash payment equal to the Call Settlement Amount, which will be calculated as described herein and paid on the third Business Day following the Call Valuation Date specified in the Call Notice (the “**Call Settlement Date**”). If the amount so calculated is less than zero, the payment upon exercise of the call right will be zero. Unless the scheduled Call Settlement Date is postponed because it is not a Business Day or because there is a Market Disruption Event on the scheduled Call Valuation Date, the final day on which we can issue a Call Notice will be November 14, 2034 (or, if the maturity of the ETNs is extended, twenty (20) calendar days prior to the scheduled Maturity Date, as extended).

Indicative Value

The “**Indicative Value**” of the ETNs is the Intraday Indicative Value or the Closing Indicative Value of the ETNs, as applicable.

Split or Reverse Split of the ETNs

We or the Calculation Agent may initiate a split or reverse split of the ETNs on any Trading Day. If we or the Calculation Agent decides to initiate a split or reverse split, we will issue a notice to holders of the ETNs and a press release announcing the split or reverse split, specifying the effective date of the split or reverse split. The Calculation Agent will determine the ratio of such split or reverse split, as the case may be, using relevant market indicia, and will adjust the terms of the ETNs accordingly. Any adjustment of the closing value will be rounded to 8 decimal places.

In the case of a reverse split, we reserve the right to address odd numbers of ETNs (commonly referred to as “partials”) in a manner determined by the Calculation Agent in its sole discretion. A split or reverse split of the ETNs will not affect the aggregate Stated Principal Amount of ETNs held by an investor, other than to the extent of any “partial” ETNs, but it will affect the number of ETNs an investor holds, the denominations used for trading purposes on the exchange and the trading price, and may affect the liquidity, of the ETNs on the exchange.

Coupon

On each Coupon Payment Date, for each ETN a holder holds on the applicable Coupon Record Date, such holder will be entitled to receive a cash payment on the applicable Coupon Payment Date equal to (a) the Reference Distribution Amount minus the Accrued Investor Fee, each calculated as of the corresponding Coupon Valuation Date (the “**Coupon Amount**”). The final Coupon Amount will be included in the Payment at Maturity if, on the Final Valuation Date, the Coupon Ex-Date with respect to the final Coupon Amount has not yet occurred. The Coupon Amount will be paid on the Coupon Payment Date to the holder of an ETN as of the applicable Coupon Record Date.

To the extent the Reference Distribution Amount on a Coupon Valuation Date is less than the Accrued Investor Fee on the corresponding Coupon Valuation Date, there will be no Coupon Amount due or payable on the corresponding Coupon Payment Date, and an amount equal to the Accrued Investor Fee minus the Reference Distribution Amount (the “**Fee Shortfall**”) will be included

in the Accrued Investor Fee for the next Coupon Valuation Date. This process will be repeated to the extent necessary until the Reference Distribution Amount for a Coupon Valuation Date is greater than the Accrued Investor Fee for the corresponding Coupon Valuation Date. If there is a Fee Shortfall as of the last Coupon Valuation Date, that amount will be reflected in the Payment at Maturity.

Denomination

The denomination and the Stated Principal Amount of each ETN is \$25.00. ETNs may be issued at a price higher or lower than the Stated Principal Amount, based on the Indicative Value of the ETNs at that time.

Payment at Maturity

If the ETNs have not previously been redeemed or called, on the Maturity Date holders will be entitled to receive for each ETN a cash payment equal to the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Values during the five consecutive Trading Days to and including the Final Valuation Date (the “**Final Valuation Period**”). The “**Final Valuation Date**” is November 29, 2034, subject to postponement if such date is not a Trading Day, or in the event of a Market Disruption Event or an extension of the Maturity Date as described herein. Any Fee Shortfall as of the last Coupon Valuation Date will be reflected in the Payment at Maturity. Any payment on the ETNs is subject to our ability to pay our obligations as they become due. In no event will the Payment at Maturity be less than zero.

If not previously redeemed or called, the ETNs will mature on December 4, 2034, subject to postponement if such date is not a Business Day, in the event of a Market Disruption Event or an extension of the Maturity Date at our option for up to two additional five-year periods. We may only extend the scheduled Maturity Date for five years at a time. If we exercise our option to extend the maturity of the ETNs, we will notify DTC (the holder of the global note for the ETNs) and the trustee at least 45 but not more than 60 calendar days prior to the then-scheduled Maturity Date. We will provide such notice to DTC and the trustee in respect of each five-year extension of the scheduled Maturity Date that we choose to effect.

If the scheduled Maturity Date is not a Business Day, the Maturity Date will be postponed to the first Business Day following the scheduled Maturity Date. If the scheduled Final Valuation Date is not a Trading Day, the Final Valuation Date will be postponed to the next following Trading Day, in which case the Maturity Date will be postponed to the third Business Day following the Final Valuation Date as so postponed. In addition, if a Market Disruption Event occurs or is continuing on any Trading Day during the Final Valuation Period, the Maturity Date will be postponed until the date three (3) Business Days following the Final Valuation Date, as postponed. No interest or additional payment will accrue or be payable as a result of any postponement of the Maturity Date. Any payment on the ETNs is subject to our ability to pay our obligations as they become due.

Maturity Date

If the Maturity Date is not a Business Day, the Maturity Date will be the next following business day. If the third Business Day before this day does not qualify as a Valuation Date (as described above), then the Maturity Date will be the third Business Day following the Final Valuation Date. The Calculation Agent may postpone the Final Valuation Date—and therefore the Maturity Date—if a Market Disruption Event occurs or is continuing on a day that would otherwise be the Final Valuation Date.

In the event that Payment at Maturity is deferred beyond the stated Maturity Date, penalty interest will not accrue or be payable with respect to that deferred payment.

If the Closing Indicative Value is zero, the Payment at Maturity will be zero.

The “**Closing Indicative Value**” for the ETNs on the Inception Date was equal to the Stated Principal Amount. The Closing Indicative Value on any Trading Day after the Inception Date will be calculated by the NYSE Arca and be equal to (a) the product of the Stated Principal Amount and the Index Factor as of such Trading Day plus (b) the Coupon Amount, if any, with respect to the most recent Coupon Valuation Date on or before the current Trading Day if on such Trading Day the Coupon Ex-Date with respect to such Coupon Amount has not yet occurred, plus (c) the Stub Coupon Amount as of such Trading Day, if any, minus (d) the Accrued Investor Fee as of such Trading Day. In no event, however, will the Closing Indicative Value be less than zero. Even if the Closing Indicative Value or Intraday Indicative Value is equal to or less than zero at any time, the trading price of the ETNs may remain above zero. Buying the ETNs at such a time will lead to a complete loss of a holder’s investment.

The “**Index Factor**” on any Trading Day, including the Final Valuation Date, will be equal to the Closing Level of the Index on that day divided by the Initial Index Level. The Closing Level of the Index on any Trading Day will be determined by the Index Sponsor and published on the Bloomberg page “SPMLP <Index>” or any successor page on Bloomberg or any successor service, as applicable.

If the ETNs undergo a split or reverse split, the Stated Principal Amount, Closing Indicative Value and Intraday Indicative Value of the ETNs will be adjusted accordingly. Neither the Closing Indicative Value nor the Intraday Indicative Value is the same as the closing price or any other trading price of the ETNs in the secondary market. The trading price of the ETNs at any time may vary significantly from the Closing Indicative Value and Intraday Indicative Value of the ETNs at such time.

The Closing Indicative Value will never be less than zero. If the Intraday Indicative Value is equal to or less than zero at any time, the Closing Indicative Value on that day, and all future days, will be zero. The Closing Indicative Value for each Trading Day will be published on such Trading Day under the Bloomberg ticker symbol “MLPOIV”. The NYSE Arca is responsible for computing and disseminating the Closing Indicative Value.

The “**Closing Level**” of the Index on any Trading Day will be the closing level published on Bloomberg under the ticker symbol “SPMLP <Index>” or any successor page on Bloomberg or any successor service, as applicable; provided that if such day is not a Trading Day, the Closing Level of the Index will be deemed to be the Closing Level as of the immediately preceding Trading Day; provided further that in the event a Market Disruption Event exists on a Valuation Date, the Calculation Agent will determine the Closing Level of the Index according to the methodology described below in “Market Disruption Events.”

The “**Annual Investor Fee Rate**” will be equal to 0.95% per annum.

On any Trading Day, including the Final Valuation Date, the “**Accrued Investor Fee**” will be equal to (a) (i) the Annual Investor Fee Rate times (ii) the number of days in the period commencing on, but excluding, the previous Coupon Valuation Date (or, with respect to the first Coupon Period, commencing on but excluding the Inception Date) to, and including, such Trading Day, divided by 365 times by (iii) Stated Principal Amount times (iv) the Index Factor as of such Trading Day, plus (b) the Fee Shortfall from the previous Coupon Valuation Date, if any.

There will be a Fee Shortfall from the previous Coupon Valuation Date if the Reference Distribution Amount on such previous Coupon Valuation Date minus the Accrued Investor Fee on such previous Coupon Valuation Date was negative. In such case, the Fee Shortfall is equal to the absolute value of such negative number.

The Accrued Investor Fee reduces the Coupon Amount and may reduce the amount of a holder’s return at maturity, upon early redemption or upon a call. If the Coupon Amounts (reduced by the Accrued Investor Fee, which includes any applicable Fee Shortfall) and the performance of the Index are not sufficient to offset the applicable fees built into the calculation of the Payment at Maturity, the Redemption Settlement Amount and the Call Settlement Amount, as the case may be, a holder will receive less, and possibly significantly less, at maturity or upon early redemption or upon a call of the ETNs than the amount of such holder’s investment.

The “**Intraday Indicative Value**” of the ETNs will be calculated and published by the IV Calculation Agent every 15 seconds on each Trading Day during normal trading hours under the Bloomberg ticker symbol “MLPOIV” and under the Yahoo! Finance ticker symbol “^MLPO-IV” so long as no Market Disruption Event has occurred or is continuing and will be disseminated over the consolidated tape or other major market data vendor. The Intraday Indicative Value at any time is based on the most recent intraday level of the Index. It is calculated using the same formula as the Closing Indicative Value, except that instead of using the Closing Level of the Index, the calculation is based on the most recent reported level of the Index at the particular time (or, if the day on which such time occurs is not a Trading Day, as determined by the Calculation Agent). If the Intraday Indicative Value of the ETNs is equal to or less than zero at any time or the Closing Indicative Value is equal to zero on any Trading Day, the Closing Indicative Value on that day, and all future days, will be zero.

We have appointed the NYSE Arca as the “**IV Calculation Agent**” to calculate the Closing Indicative Value and the Intraday Indicative Value of the ETNs. We may, at any time, vary or terminate the appointment of the IV Calculation Agent and appoint a replacement IV Calculation Agent.

A “**Business Day**” is any Monday, Tuesday, Wednesday, Thursday or Friday that is not a day on which banking institutions in New York City generally are authorized or obligated by law, regulation or executive order to close.

A “**Trading Day**” is day on which trading is generally conducted on the New York Stock Exchange, the NYSE Arca, Nasdaq and any other exchange which the Index Constituents are traded and published.

The “**Index**” means the price return version of the S&P MLP Index. The Index includes both master limited partnerships (“**MLPs**”) and limited liability companies (“**LLCs**”), which have a similar legal structure to MLPs and share the same tax characteristics as MLPs (collectively, the “**Index Constituents**”), that trade on major U.S. exchanges. The Index Constituents are classified in the GICS® Energy Sector and GICS® Gas Utilities Industry according to the Global Industry Classification Standard® (“**GICS**”).

The ETNs do not guarantee any return of a holder’s investment. If the level of the Index decreases or does not increase sufficiently to offset the Accrued Investor Fee reflected in the Closing Indicative Value of the ETN, a holder will receive less, and possibly significantly less, at maturity or upon early redemption or upon a call of the ETNs than the amount of such holder’s investment. Any payment holders will be entitled to receive is subject to our ability to pay our obligations as they become due.

Payment Upon Early Redemption

Prior to maturity, holders may, subject to certain restrictions described below, offer at least the applicable minimum number (the “**Minimum Redemption Amount**”) of ETNs to us for early redemption by delivering to us a redemption notice (the “**Redemption Notice**”). The minimum redemption amount will be equal to 10,000 ETNs, except that we or CSSU may from time to time reduce, in part or in whole, the minimum redemption amount. Any such reduction will be applied on a consistent basis for all holders of the ETNs at the time such reduction becomes effective. If the ETNs undergo a split or reverse split, the minimum number of ETNs needed to exercise the right to cause us to redeem the ETNs will remain the same.

If a holder elects to offer its ETNs for early redemption and the requirements for acceptance by us are met, such holder will receive on the Redemption Settlement Date a cash payment in an amount equal to the Redemption Settlement Amount for each ETN such holder holds. Investors will be charged the applicable Redemption Fee Amount for ETNs redeemed at such holder’s option. Any payment on the ETNs is subject to our ability to pay our obligations as they become due.

A holder may provide a Redemption Notice on any Business Day during the term of the ETNs, starting on the Business Day following the Inception Date until November 21, 2034 (or, if the maturity of the ETNs is extended, five scheduled Trading Days prior to the scheduled Final Valuation Date, as extended).

If the number of ETNs being redeemed is less than the Redemption Liquidity Threshold (a “**Small Redemption**”), the Redemption Settlement Amount will be a cash payment per ETN equal to the greater of (a) zero and (b) (1) the Closing Indicative Value on the applicable Small Redemption Valuation Date, minus (2) the Redemption Fee Amount.

If the number of ETNs being redeemed is equal to or greater than the Redemption Liquidity Threshold (a “**Large Redemption**”), the Redemption Settlement Amount will be a cash payment per ETN equal to the greater of (a) zero and (b) (1) the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Values during the Redemption Valuation Period, minus (2) the Redemption Fee Amount.

A holder may exercise its early redemption right by causing its broker or other person with whom such holder holds its ETNs to deliver a Redemption Notice (as defined herein) to Credit Suisse.

In the case of a Small Redemption, and where the Redemption Notice is delivered prior to 4:00 p.m. New York City time on any Business Day, the immediately following Trading Day will be the applicable “**Small Redemption Valuation Date**”. If the Redemption Notice is delivered at or after 4:00 p.m. New York City time, the Small Redemption Valuation Date will be the second following Trading Day.

In the case of a Large Redemption, and where the Redemption Notice is delivered prior to 4:00 p.m. New York City time on any Business Day, the immediately following Trading Day will be the first day of the Redemption Valuation Period. If the Redemption Notice is delivered at or after 4:00 p.m. New York City time, the first day of the Redemption Valuation Period will be the second following Trading Day. In either case, the Large Redemption Valuation Date will be the last day of the Redemption Valuation Period.

When a holder submits its ETNs for redemption in accordance with the redemption procedures described herein, its ETNs may remain outstanding (and be resold by us or an affiliate) or may be submitted by us for cancellation.

The “**Redemption Settlement Date**” will be the third Business Day following a Redemption Valuation Date.

The “**Redemption Valuation Period**” for Large Redemptions will be a period of five consecutive Trading Days to, and including, the Large Redemption Valuation Date.

In the case of a Small Redemption, the Redemption Fee Amount will be equal to the product of (1) the Closing Indicative Value of the ETNs on the applicable Trading Day times (2) 0.10%.

In the case of a Large Redemption, the Redemption Fee Amount will be equal to the product of (1) the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Values of the ETNs during the Redemption Valuation Period, times (2) 0.10%.

The “**Redemption Liquidity Threshold**” will be equal to 1,000,000 ETNs.

Procedures for Early Redemption

If a holder wishes to offer its ETNs to Credit Suisse for early redemption, such holder’s broker or other person with whom such holder holds its ETNs must follow the following procedures:

- Deliver a notice of early redemption (the “**Redemption Notice**”), to Credit Suisse via email or other electronic delivery as requested by Credit Suisse. In the case of a Small Redemption, and where the Redemption Notice is delivered prior to 4:00 p.m. New York City time on any Business Day, the immediately following Trading Day will be the applicable “**Small Redemption Valuation Date**”. If the Redemption Notice is delivered at or after 4:00 p.m. New York City time, the Small Redemption Valuation Date will be the second following Trading Day. In the case of a Large Redemption, and where the Redemption Notice is delivered prior to 4:00 p.m. New York City time on any Business Day, the immediately following Trading Day will be the first day of the Redemption Valuation Period. If the Redemption Notice is delivered at or after 4:00 p.m. New York City time, the first day of the Redemption Valuation Period will be the second following Trading Day. In either case, the Large Redemption Valuation Date will be the last day of the Redemption Valuation Period. Credit Suisse or its affiliate must acknowledge to a holder’s broker or other person with whom such holder holds its ETNs acceptance of the Redemption Notice in order for such holder’s early redemption request to be effective;
- Notwithstanding the foregoing, Credit Suisse may, at its option, waive the requirement that the Redemption Notice be delivered as set forth above, if confirmed by Credit Suisse that a written indication of an offer for early redemption has otherwise been accepted by Credit Suisse. Any such written indication that is delivered at or after 4:00 p.m., New York City time, on any Business Day, will be deemed to have been made on the following Business Day. For the avoidance of doubt, a holder may choose to comply with the procedures set forth above in lieu of the procedures in this clause, irrespective of any waiver by Credit Suisse;
- Cause the holder’s DTC custodian to book a delivery versus payment trade with respect to the ETNs on the applicable Redemption Valuation Date at a price equal to the applicable Redemption Settlement Amount, facing us; and
- Cause the holder’s DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m. New York City time, on the applicable Redemption Date (the third Business Day following the Redemption Valuation Date).

The holder is responsible for (i) instructing or otherwise causing its broker or other person with whom such holder holds its ETNs to provide the Redemption Notice (unless otherwise waived by Credit Suisse as set forth above) and (ii) its broker satisfying the additional requirements as set forth in the second and third bullets above in order for the early redemption to be effected. Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, a holder should consult the brokerage firm through which it owns its interest in the ETNs in respect of such deadlines. If Credit Suisse does not (i) receive the Redemption Notice from the holder’s broker prior to 4:00 p.m. and (ii) deliver an acknowledgment of such Redemption Notice to such broker accepting such redemption request by 7:30 p.m., on the Business Day prior to the applicable Redemption Valuation Date or the first day of the Redemption Valuation Period, as the case may be, such notice will not be effective for such Business Day and Credit Suisse will treat such Redemption Notice as if it was received on the next Business Day. Any redemption instructions for which Credit Suisse receives a valid confirmation in accordance with the procedures described above will be irrevocable after Credit Suisse confirms a holder’s offer for early redemption.

Because the Redemption Settlement Amount a holder will receive for each ETN will not be determined until the close of trading on the applicable Redemption Valuation Date, a holder will not know the applicable Redemption Settlement Amount at the time such holder exercises its redemption right and will bear the risk that its ETNs will decline in value between the time of such holder’s exercise and the time at which the Redemption Settlement Amount is determined.

Issuer Call Right

We have the right to call the ETNs in whole or in part on any Trading Day during the term of the ETNs by providing notice to holders of the ETNs starting on the Trading Day following the Inception Date until the twentieth (20th) calendar day preceding the Maturity Date (the “**Call Notice**”). We will provide notice at least twenty (20) calendar days prior to the Call Settlement Date.

Upon exercise of our call right, holders will be entitled to receive a cash payment equal to the Call Settlement Amount, which will be calculated as described herein and paid on the third Business Day following the Call Valuation Date specified in the Call Notice (the “**Call Settlement Date**”). If the amount so calculated is less than zero, the payment upon exercise of the call right will be zero.

Unless the scheduled Call Settlement Date is postponed because it is not a Business Day or because there is a Market Disruption Event on the scheduled Call Valuation Date, the final day on which we can issue a Call Notice will be November 14, 2034 (or, if the maturity of the ETNs is extended, twenty (20) calendar days prior to the scheduled Maturity Date, as extended).

Market Disruption Events

As set forth under “Payment at Maturity”, “Payment Upon Early Redemption” and “Issuer Call Right” above, the Index Sponsor will determine the Closing Level of the Index on each Valuation Date, including the Final Valuation Date. Notwithstanding the foregoing, the Calculation Agent will be solely responsible for the determination and calculation of any adjustments to the Index and of any related determinations and calculations with respect to any event described below and its determinations and calculations will be conclusive absent manifest error.

A “**Market Disruption Event**” means the occurrence or existence on any scheduled Trading Day during the one-half hour period that ends at the relevant Valuation Time, of any suspension of or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the relevant exchange or otherwise) on:

- (a) an exchange on which securities that comprise 20% or more of the level of the Index (or a Successor Index) are traded based on a comparison of (1) the portion of the level of the Index (or a Successor Index) attributable to each Index Constituent comprising the Index (or a Successor Index) in which trading is, in the determination of the Calculation Agent, materially suspended or materially limited relative to (2) the overall level of the Index (or a Successor Index), in the case of (1) or (2) immediately before that suspension or limitation;
- (b) a Related Exchange in options contracts on the Index (or a Successor Index); or
- (c) a Related Exchange in futures contracts on the Index (or a Successor Index); and

in the case of (a), (b) or (c) a determination by the Calculation Agent that such suspension or limitation is material.

“**Related Exchange**” means any exchange on which futures or options contracts relating to the Index are traded and any successor to such exchange or any substitute exchange to which trading in futures or options contracts relating to the Index has temporarily relocated.

“**Exchange**” means the principal exchange on which the relevant security is traded.

“**Valuation Time**” means the time at which the Index Sponsor calculates the Closing Level of the Index on any Trading Day.

A Valuation Date will be postponed and thus the determination of the Closing Level of the Index will be postponed if the Calculation Agent reasonably determines that, on such Valuation Date, a Market Disruption Event has occurred or is continuing. In such case, that Valuation Date will be postponed to the next Trading Day on which the Calculation Agent determines that no Market Disruption Event occurs or is continuing, unless in respect of such Valuation Date the Calculation Agent determines that a Market Disruption Event occurs or is continuing on each of the six scheduled Trading Days immediately following the scheduled Valuation Date. In that case, (a) the sixth scheduled Trading Day following the scheduled Valuation Date will be deemed to be the Valuation Date, notwithstanding the Market Disruption Event, and (b) the Calculation Agent will determine the Closing Level for the Index on that deemed Valuation Date in accordance with the formula for and method of calculating the Index last in effect prior to the commencement of the Market Disruption Event using exchange traded prices of the Index Constituents on the relevant exchanges (as determined by the Calculation Agent in its sole and absolute discretion) or, if trading in any Index Constituent has been materially suspended or materially limited, its good faith estimate of the prices that would have prevailed on the exchanges (as determined by the Calculation Agent in its sole and absolute discretion) but for the suspension or limitation, as of the Valuation Time on that deemed Valuation Date, of each Index Constituent (subject to the provisions described under “Discontinuation or Modification of the Index” herein). Any such postponement or determinations by the Calculation Agent may adversely affect the return on the ETNs. In addition, no interest or other payment will be payable as a result of such postponement.

If a scheduled Valuation Date is postponed due to a Market Disruption Event, the corresponding Redemption Settlement Date or the corresponding Call Settlement Date will also be postponed so that such Redemption Settlement Date or such Call Settlement Date, respectively, occurs on the third Business Day following the Valuation Date as postponed. If a scheduled Coupon Valuation Date is postponed due to a Market Disruption Event the corresponding Coupon Payment Date will also be postponed so that such Coupon

Payment Date occurs on the fifteenth Business Day following the Coupon Valuation Date as postponed. If the Final Valuation Date is postponed due to a Market Disruption Event, the Maturity Date will also be postponed so that the Maturity Date occurs on the third Business Day following the Final Valuation Date as postponed.

Default Amount on Acceleration

For the purpose of determining whether the holders of our senior medium-term notes, of which the ETNs are a part, are entitled to take any action under the indenture, we will treat the Stated Principal Amount of each ETN outstanding as the principal amount of that ETN. Although the terms of the ETNs may differ from those of the other senior medium-term notes, holders of specified percentages in principal amount of all senior medium-term notes, together in some cases with other series of our debt securities, will be able to take action affecting all the senior medium-term notes, including the ETNs. This action may involve changing some of the terms that apply to the senior medium-term notes, accelerating the maturity of the senior medium-term notes after a default or waiving some of our obligations under the indenture.

In case an event of default with respect to ETNs shall have occurred and be continuing, the amount declared due and payable upon any acceleration of the ETNs will be determined by CSI, as the Calculation Agent, and will equal, for each ETN that a holder then holds, the Closing Indicative Value determined by the Calculation Agent occurring on the Trading Day following the date on which the ETNs were declared due and payable.

Further Issuances

We may, from time to time, without notice to or the consent of the holders of the ETNs, create and issue additional securities having the same terms and conditions as the ETNs, and ranking on an equal basis with the ETNs in all respects.

Discontinuation or Modification of the Index

If the Index Sponsor discontinues publication of the Index and the Index Sponsor or anyone else publishes a substitute index that the Calculation Agent determines is comparable to the Index, then the Calculation Agent will permanently replace the original Index with that substitute index (the “**Successor Index**”) for all purposes, and all provisions described herein as applying to the Index will thereafter apply to the Successor Index instead. If the Calculation Agent replaces the original Index with a Successor Index, then the Calculation Agent will determine the Redemption Settlement Amount, Call Settlement Amount or Payment at Maturity, as applicable, by reference to the Successor Index.

If the Calculation Agent determines that the publication of the Index is discontinued and there is no Successor Index, the Calculation Agent will determine the level of the Index and thus the applicable Payment Amount, by a computation methodology that the Calculation Agent determines, will as closely as reasonably possible replicate the Index.

If the Calculation Agent determines that the Index, the Index Constituents or the method of calculating the Index is changed at any time in any respect, including whether the change is made by the Index Sponsor under its existing policies or following a modification of those policies, is due to the publication of a Successor Index, is due to events affecting the Index Constituents or is due to any other reason and is not otherwise reflected in the level of the Index by the Index Sponsor pursuant to the Index methodology, then the Calculation Agent will be permitted (but not required) to make such adjustments in the Index or the method of its calculation as it believes are appropriate to ensure that the Closing Level of the Index used to determine the Redemption Settlement Amount, Call Settlement Amount or Payment at Maturity is equitable.

Manner of Payment and Delivery

Any payment on or delivery of the ETNs at maturity will be made to accounts designated by holders and approved by us, or at the office of the trustee in New York City, but only when the ETNs are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depositary.

Role of CSI

Credit Suisse International (“**CSI**”), an affiliate of ours and the Calculation Agent, will, in its reasonable discretion, make certain calculations and determinations that may impact the value of the ETNs, including determination of the arithmetic average of the Closing Indicative Values where applicable, Redemption Valuation Dates, Trading Days, a split or reverse split of the ETNs, calculation of

default amounts, Market Disruption Events and any Successor Index and any other calculations or determinations to be made by the Calculation Agent as specified herein.

If the Calculation Agent ceases to perform its role, we will either, at our sole discretion, perform such role, appoint another party to do so or call the ETNs.

We may appoint a different Calculation Agent from time to time without consent and without notifying holders.

Description of Credit Suisse X-Links® Gold Shares Covered Call ETNs due February 2, 2033

Defined terms used within this subsection are defined only with respect to the ETNs listed in the subsection heading above and described within this subsection.

General

The return on the X-Links® Gold Shares Covered Call ETNs due February 2, 2033 (“**ETNs**”) will be based on the performance of the Credit Suisse NASDAQ Gold FLOWS™ 103 Index (the “**Index**”), as reflected by their Indicative Value, calculated as set forth below. The Index measures the return of a “covered call” strategy on the shares of the SPDR® Gold Trust (the “**GLD Shares**”) by reflecting changes in the price of the GLD Shares and the notional option premiums received from the notional sale of monthly call options on the GLD Shares less the Notional Transaction Costs incurred in connection with the implementation of the covered call strategy (the “**Notional Transaction Costs**”). These costs reflect the monthly transaction costs of hypothetically buying and selling the call options and selling the GLD Shares and equal 0.03%, 0.03% and 0.01%, respectively, *times* the closing price of the GLD Shares on the date of such notional transactions and, which, on an annual basis, are approximately equal to 0.84%. The actual cost will vary depending on the value of the GLD Shares on the date of such transactions. The Index strategy consists of a hypothetical notional portfolio that takes a “long” position in GLD Shares and sells a succession of notional, approximately one-month, call options on the GLD Shares with a strike price of approximately 103% of the price of the GLD Shares exercisable on the option expiration date (the “**Options**” and together with the long position in GLD Shares, the “**Index Components**”). The notional sale of the Options is “covered” by the notional long position in the GLD Shares. The long position in the GLD Shares and the “short” call options are held in equal notional amounts (i.e., the short position in each Option is “covered” by the long position in the GLD Shares). This strategy is intended to provide exposure to gold through the notional positions in the GLD Shares and the Options that seeks to (i) generate periodic cash flows that a direct long-only ownership position in the GLD Shares would not, (ii) provide a limited offset to losses from downside market performance in the GLD Shares via the cash flows from option premiums and (iii) provide limited potential upside participation in the performance of the GLD Shares. The level of the Index on any day reflects the value of (i) the notional long position in the GLD Shares; (ii) the notional Option premium; and (iii) the notional short position in the Options then outstanding; and net of the Notional Transaction Costs. The ETNs will not participate in the potential upside of the GLD Shares beyond the applicable strike price of the Options and the Notional Transaction Costs. The Index is subject to the policies of CSI and NASDAQ OMX (the “**Index Sponsors**”) and is subject to the Index Sponsors’ discretion, including with respect to the implementation of, and changes to, the rules governing the Index methodology.

Inception, Issuance and Maturity

The initial issuance of ETNs priced on January 28, 2013 (the “**Inception Date**”) and settled on February 1, 2013 (the “**Initial Settlement Date**”). The “**Maturity Date**” is initially February 2, 2033, but the maturity of the ETNs may be extended at our option for up to two additional five-year periods, as described herein.

Intraday Indicative Value

The “**Intraday Indicative Value**” of the ETNs is designed to reflect the economic value of the ETNs at a given time. The Intraday Indicative Value of the ETNs will be calculated and published by the Index Calculation Agent every fifteen (15) seconds on each Trading Day during normal trading hours so long as no Market Disruption Event has occurred or is continuing and will be disseminated over the consolidated tape or other major market data vendor. The Intraday Indicative Value of the ETNs at any time is based on the most recent intraday level of the Index. It is calculated using the same formula as the Closing Indicative Value, except that instead of

using the Closing Level of the Index, the calculation is based on the most recent reported level of the Index at the particular time (or, if the day on which such time occurs is not a Trading Day, as determined by the Calculation Agent).

At any time at which a Market Disruption Event has occurred and is continuing, there shall be no Intraday Indicative Value. If the Intraday Indicative Value of the ETNs is equal to or less than zero at any time or the Closing Indicative Value is equal to zero on any Trading Day, the Closing Indicative Value of the ETNs on that day, and all future days, will be zero.

Neither the Intraday Indicative Value nor the Closing Indicative Value calculation is intended as a price or quotation, or as an offer or solicitation for the purchase, sale, redemption, acceleration or termination of a holder's ETNs, nor will it reflect hedging or transaction costs, credit considerations, market liquidity or bid-offer spreads. The Index Calculation Agent is responsible for computing and disseminating the ETN's Indicative Values. Published levels of the Index from the Index Calculation Agent may occasionally be subject to delay or postponement. Any such delays or postponements will affect the current level of the Index and therefore the Intraday Indicative Value of the ETNs. The actual trading price of the ETNs may be different from their Intraday Indicative Value or Closing Indicative Value.

The actual trading price of the ETNs at any time may vary significantly from the Intraday Indicative Value at such time. The trading price of the ETNs at any time is the price that holders may be able to buy or sell their ETNs in the secondary market at such time, if one exists.

The trading price of the ETNs at any time is the price at which holders may be able to buy or sell their ETNs in the secondary market at such time, if one exists. In the absence of an active secondary market for the ETNs, the last reported trading price may not reflect the actual price at which holders may be able to buy or sell their ETNs at a particular time. The trading price of the ETNs at any time may vary significantly from their Indicative Value at such time due to, among other things, imbalances of supply and demand, lack of liquidity, transaction costs, credit considerations and bid-offer spreads.

The closing price of the ETNs will be published on each Trading Day under the ticker symbol "GLDI". Any premium or discount may be reduced or eliminated at any time. Paying a premium purchase price of the ETNs over the Intraday Indicative Value or the Closing Indicative Value of the ETNs could lead to significant losses in the event holders sell their ETNs at a time when such premium is no longer present in the market place or such ETNs are redeemed by us (including pursuant to an acceleration at our option), in which case holders will be entitled to receive a cash payment based on the Closing Indicative Value on the relevant Valuation Date(s).

The ETNs may be redeemed or accelerated at any time, subject to the conditions described herein.

As discussed in "Payment Upon Early Redemption" below, a holder may, subject to certain restrictions, provide a Redemption Notice on any Business Day during the term of the ETNs beginning on January 29, 2013 through January 21, 2033 (or, if the maturity of the ETNs is extended, five (5) scheduled Trading Days prior to the scheduled Final Valuation Date, as extended) (for an anticipated January 24, 2033 Early Redemption Valuation Date and an anticipated Early Redemption Date of January 27, 2033 or, if the maturity of the ETNs is extended, an Early Redemption Valuation Date four (4) scheduled Trading Days prior to the scheduled Final Valuation Date, as extended, and an Early Redemption Date one scheduled Business Day prior to the scheduled Final Valuation Date, as extended). If a holder elects to offer its ETNs to Credit Suisse for redemption, such must offer at least the applicable Minimum Redemption Amount at one time for redemption on any Early Redemption Date.

In addition, we have the right to accelerate the ETNs in whole or in part at any time on any Business Day occurring on or after the Inception Date or upon the occurrence of certain events described herein. Upon an acceleration of all of the outstanding ETNs, holders will be entitled to receive a cash payment per ETN in an amount (the "**Accelerated Redemption Amount**") equal to the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Values of such ETNs during the Accelerated Valuation Period. If fewer than all of the outstanding ETNs are accelerated, the Accelerated Redemption Amount will be the Closing Indicative Value on the Accelerated Valuation Date. If less than all the ETNs are to be redeemed pursuant to an Optional Acceleration or an Event Acceleration, the trustee shall select, pro rata, by lot or in such manner as it deems appropriate and fair, the ETNs to be redeemed pursuant to such acceleration. ETNs may be accelerated in part in multiples of 10,000 ETNs, or an integral multiple of 10,000 ETNs in excess thereof.

The last date on which Credit Suisse will redeem the ETNs at a holder's option will be January 27, 2033 (or, if the maturity of the ETNs is extended, one scheduled Business Day prior to the scheduled Maturity Date, as extended). As such, holders must offer their ETNs for redemption no later than January 21, 2033 (or, if the maturity of the ETNs is extended, five (5) scheduled Trading Days prior to the scheduled Final Valuation Date, as extended). The daily redemption feature is intended to induce arbitrageurs to counteract any

trading of the ETNs at a premium or discount to their Indicative Value, although there can be no assurance that arbitrageurs will employ the redemption feature in this manner.

Indicative Value

The “**Indicative Value**” of the ETNs is the Intraday Indicative Value or the Closing Indicative Value of the ETNs, as applicable.

Split or Reverse Split of the ETNs

The Calculation Agent may initiate a split or reverse split of the ETNs on any Trading Day. If the Calculation Agent decides to initiate a split or reverse split, the Calculation Agent will issue a notice to holders of the ETNs and a press release announcing the split or reverse split, specifying the effective date of the split or reverse split. The Calculation Agent will determine the ratio of such split or reverse split, as the case may be, using relevant market indicia, and will adjust the terms of the ETNs accordingly. Any adjustment of the closing value will be rounded to 8 decimal places.

In the case of a reverse split, we reserve the right to address odd numbers of ETNs (commonly referred to as “partials”) in a manner determined by the Calculation Agent in its sole discretion. A split or reverse split of the ETNs will not affect the aggregate stated principal amount of ETNs held by an investor, other than to the extent of any “partial” ETNs, but it will affect the number of ETNs an investor holds, the denominations used for trading purposes on the exchange and the trading price, and may affect the liquidity, of the ETNs on the exchange.

If the ETNs undergo a subsequent split or reverse split, the Current Principal Amount, Closing Indicative Value and Intraday Indicative Value of the ETNs will be adjusted accordingly.

Neither the Closing Indicative Value nor the Intraday Indicative Value is the same as the closing price or any other trading price of the ETNs in the secondary market. The trading price of the ETNs at any time may vary significantly from the Closing Indicative Value and Intraday Indicative Value of the ETNs at such time.

Credit Suisse implemented a 1-for-20 reverse split, effective September 27, 2022.

Coupon Amount

On each Coupon Payment Date, for each \$400.00 stated principal amount of the ETNs, holders on the Coupon Record Date will be entitled to receive a variable cash payment equal to the Closing Indicative Value on the Index Business Day immediately preceding the relevant Index Distribution Date multiplied by the Coupon Percentage for that Index Distribution Date. The Coupon will be paid on the Coupon Payment Date to the holder of record on the applicable Coupon Record Date. No Coupon Amount will be due or payable in the event a holder elects to offer its ETNs for early redemption or we accelerate the maturity of the ETNs.

The Coupon Percentage in respect of an Index Distribution Date will be the Distribution for such Index Distribution Date divided by the Closing Level of the Index the Index Business Day immediately preceding the Index Distribution Date. The Distribution represents the notional monthly call premium earned on the sale of the call options written on the GLD Shares during the immediately preceding Index Rebalancing Period pursuant to the Index methodology.

The premiums generated from the notional sales of the Options will be subtracted monthly from the Index and paid to holders of the ETNs in the form of a Coupon Amount, the amount of which is determined based on the notional premiums received from the sale of the Options during the preceding Rebalancing Period as described below.

The “**Index Rebalancing Period**” refers to the five (5) consecutive Index Calculation Days beginning on and including the Index Calculation Day that is ten (10) calendar days prior to the Expiry Date (as defined below) of the relevant Options (each, a “**Roll Date**”). The Index will be rebalanced at the end of each Roll Date in accordance with the following steps:

- First, on the Index Calculation Day preceding the first Roll Date of each month, the strike price of the new Option is determined. The strike price will be the lowest listed strike price that is above 103% of the price per Share as of the 4:00 p.m. New York City time on such date of determination. Then, the Index will roll its monthly exposure over the next five (5) consecutive Index Calculation Days. The roll percentage is the proportion of the expiring position being rolled into a new position on each Roll Date.
- At the end of the first Roll Date, and on each successive Roll Date of such Index Rebalancing Period, the Index will notionally sell the new Option. Additionally, as of the end of each such Roll Date, the Index will hypothetically close out through repurchase 20%

(or such greater amount in the event of roll disruptions) of the Options notionally sold during the previous Index Rebalancing Period (the expiring Options); the Index will notionally liquidate GLD Shares Units in an amount sufficient to fund the notional repurchase.

- Finally, on the last Roll Date of such Index Rebalancing Period, the Index will determine the amount of the notional Option premium, which will, on the close of the last Roll Date of the next following Index Rebalancing Period, be subtracted from the Index as a Distribution and paid to holders of the ETNs in the form of the Coupon Amount.

An Index Distribution Date will be the date on which the Distribution is subtracted from the level of the Index pursuant to the rules of the Index, which will occur on the last Roll Date of a given Index Rebalancing Period.

The Coupon Amount is calculated by reference to the notional Distribution from the Index, which will decrease the level of the Index (and therefore the value of the ETNs), as the Distribution comes directly from the notional portfolio reflected by the Index Components. When the Distribution is deducted from the Index on the Index Distribution Date, the Coupon Amount will be added to the Closing Indicative Value and the Intraday Indicative Value of the ETNs. At the market opening on the Ex-Coupon Date, the ETNs will trade on an ex-coupon basis, adjusted for the Coupon Amount, meaning that the Coupon Amount will no longer be included in the Closing Indicative Value or the Intraday Indicative Value of the ETNs. For a holder to receive the upcoming Coupon Amount, the holder must own the ETNs on the Coupon Record Date.

The “**Ex-Coupon Date**” means, with respect to each Coupon Amount, the first Trading Day on which the ETNs trade without the right to receive such Coupon Amount.

Denomination

Prior to September 27, 2022, the denomination and stated principal amount of each ETN was \$20.00. Credit Suisse implemented a 1-for-20 reverse split of the ETNs, effective September 27, 2022. As of September 27, 2022, the denomination and stated principal amount of each ETN is \$400.00. ETNs may be issued at a price that is higher or lower than the stated principal amount, based on the Indicative Value of the ETNs at that time.

Payment at Maturity

At maturity, holders of the ETNs will be entitled to receive a cash payment on February 2, 2033 (the “**Maturity Date**”) (or, if the maturity of the ETNs is extended, on the scheduled Maturity Date, as extended) that is equal to the “**Final Indicative Value**”, which will be the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Value on each of the immediately preceding five (5) Trading Days to and including the Final Valuation Date (the “**Final Valuation Period**”). We refer to the amount of such payment as the “**Maturity Redemption Amount**”. If the scheduled Maturity Date is not a Business Day, the Maturity Date will be postponed to the first Business Day following the scheduled Maturity Date. If the scheduled Final Valuation Date is not a Trading Day, the Final Valuation Date will be postponed to the next following Trading Day, in which case the Maturity Date will be postponed to the third Business Day following the Final Valuation Date as so postponed. In addition, if a Market Disruption Event occurs or is continuing on the Final Valuation Date, the Maturity Date will be postponed until the date three (3) Business Days following the Final Valuation Date, as postponed. No interest or additional payment will accrue or be payable as a result of any postponement of the Maturity Date. Any payment on the ETNs is subject to our ability to pay our obligations as they become due. In no event will the payment at maturity be less than zero.

The scheduled Maturity Date is initially February 2, 2033, but may be extended at our option for up to two (2) additional five-year periods. We may only extend the scheduled Maturity Date for five (5) years at a time. If we exercise our option to extend the maturity of the ETNs, we will notify DTC (the holder of the global note for the ETNs) and the trustee at least 45 but not more than 60 calendar days prior to the then scheduled Maturity Date. We will provide such notice to DTC and the trustee in respect of each five-year extension of the scheduled Maturity Date that we choose to effect.

If the Final Indicative Value is zero, the Maturity Redemption Amount will be zero.

The “**Closing Indicative Value**” on the Inception Date was \$20.00 (the “**Initial Indicative Value**”). The Closing Indicative Value on each calendar day following the Inception Date will be calculated by the Index Calculation Agent and will be equal to (1) the Current Principal Amount for such calendar day *plus* (2) for any day on or after the Index Distribution Date but prior to the Ex-Coupon Date for a given month, any accrued but unpaid Coupon Amount. The Closing Indicative Value will never be less than zero. If the Intraday Indicative Value is equal to or less than zero at any time or the Closing Indicative Value is equal to zero on any Trading Day, the Closing Indicative Value of the ETNs on that day, and all future days, will be zero. The Closing Indicative Value is not the same as the closing price or any other trading price of the ETNs in the secondary market. The trading price of the ETNs at any time may vary significantly

from their Indicative Value at such time. If the ETNs undergo a subsequent split or reverse split, the Closing Indicative Value of the ETNs will be adjusted accordingly (see “Split or Reverse Split of the ETNs”). Such adjustment may adversely affect the trading price and liquidity of the ETNs. Even if the Closing Indicative Value or Intraday Indicative Value is equal to or less than zero at any time, the trading price of the ETNs may remain above zero. Buying the ETNs at such a time will lead to a complete loss of a holder’s investment.

The ETNs underwent a 1-for-20 reverse split, effective September 27, 2022. Since September 27, 2022, the Closing Indicative Value has been expressed in an amount per denomination and stated principal amount of \$400.00 based on the split-adjusted Current Principal Amount.

The “**Current Principal Amount**” on each calendar day following the Inception Date will be equal to (1)(a) the Current Principal Amount on the immediately preceding calendar day times (b) the Daily Index Factor on such calendar day minus (2) the Daily Investor Fee on such calendar day. The Current Principal Amount on the Inception Date was \$20.00.

The ETNs underwent a 1-for-20 reverse split, effective September 27, 2022. For the purposes of determining the Current Principal Amount on September 27, 2022, the Current Principal Amount on September 26, 2022, multiplied by 20 and rounded to 8 decimal places, shall be used in the formula above. Since September 27, 2022, the Current Principal Amount has been expressed in an amount per denomination and stated principal amount of \$400.00.

A “**Business Day**” is a Monday, Tuesday, Wednesday, Thursday or Friday that is not a day on which banking institutions in New York City or London, England generally are authorized or obligated by law, regulation or executive order to close.

A “**Trading Day**” is a day which is (i) an Index Business Day, (ii) an ETN Business Day and (iii) an Index Component Business Day for each of the Index Components.

An “**Index Business Day**” is a day on which the level of the Index is calculated and published.

With respect to any Index Component, an “**Index Component Business Day**” is a day on which trading is generally conducted on any markets on which such Index Component is traded.

An “**ETN Business Day**” is a day on which trading is generally conducted on the New York Stock Exchange, NYSE Arca and NASDAQ.

The “**Daily Index Factor**” on any Index Business Day will equal (a) the Closing Level of the Index on such Index Business Day divided by (b) the Closing Level of the Index on the immediately preceding Index Business Day. The Daily Index Factor is deemed to be one on any day that is not an Index Business Day.

On any calendar day, the “**Daily Investor Fee**” will be equal to the product of (1)(a) the Current Principal Amount on the immediately preceding calendar day times (b) the Daily Index Factor on such calendar day times (2)(a) the Investor Fee Rate divided by (b) 365. The “Investor Fee Rate” will be equal to 0.65%.

The ETNs underwent a 1-for-20 reverse split, effective September 27, 2022. For the purposes of determining the Daily Investor Fee on September 27, 2022, the Current Principal Amount on September 26, 2022, multiplied by 20 and rounded to 8 decimal places, shall be used in the formula above.

The ETNs do not guarantee any return of a holder’s investment. If the level of the Index decreases or does not increase sufficiently to offset the Daily Investor Fee (and in the case of Early Redemption, the Early Redemption Charge) over the term of the ETNs, a holder will receive less, and possibly significantly less, at maturity or upon early redemption or acceleration of the ETNs than the amount of such holder’s investment.

The “**Closing Level**” of the Index on any Trading Day will be the Closing Level published on Bloomberg under the ticker symbol “QGLDI <Index>” or any successor page on Bloomberg or any successor service, as applicable; provided that in the event a Market Disruption Event exists on a Valuation Date, the Calculation Agent will determine the Closing Level of the Index.

Any payment holders will be entitled to receive is subject to our ability to pay our obligations as they become due.

Payment Upon Early Redemption

Prior to maturity, holders may, subject to certain restrictions described below, offer at least the applicable Minimum Redemption Amount or more of the ETNs to us for redemption on an Early Redemption Date during the term of the ETNs until January 21, 2033 (or, if the maturity of the ETNs is extended, five (5) scheduled Trading Days prior to the scheduled Final Valuation Date, as extended). If a holder elects to offer its ETNs for redemption, and the requirements for acceptance by us are met, such holder will be entitled to receive a cash payment per ETN on the Early Redemption Date equal to the Early Redemption Amount. Any payment holders will be entitled to receive on the ETNs is subject to our ability to pay our obligations as they become due.

A holder may exercise its early redemption right by causing its broker or other person with whom such holder holds its ETNs to deliver a Redemption Notice (as defined herein) to Credit Suisse. If such Redemption Notice is delivered prior to 4:00 p.m., New York City time, on any Business Day, the immediately following Trading Day will be the applicable “**Early Redemption Valuation Date**”. Otherwise, the second following Trading Day will be the applicable Early Redemption Valuation Date. See “Procedures for Early Redemption”.

A holder must offer for redemption at least 10,000 ETNs or an integral multiple of 10,000 ETNs in excess thereof at one time in order to exercise its right to cause us to redeem its ETNs on any Early Redemption Date (the “**Minimum Redemption Amount**”); provided that we or CSi as the Calculation Agent may from time to time reduce, in part or in whole, the Minimum Redemption Amount. Any such reduction will be applied on a consistent basis for all holders of the ETNs at the time the reduction becomes effective. If the ETNs undergo a subsequent split or reverse split, the minimum number of ETNs needed to exercise the right to cause us to redeem the ETNs will remain the same.

When a holder submits its ETNs for redemption in accordance with the redemption procedures described herein, such ETNs may remain outstanding (and be resold by us or an affiliate) or may be submitted by us for cancellation.

The “**Early Redemption Date**” is the third Business Day following an Early Redemption Valuation Date.

The “**Early Redemption Charge**” per ETN will equal 0.125% times the Closing Indicative Value on the Early Redemption Valuation Date.

The “**Early Redemption Amount**” is a cash payment per ETN equal to the greater of (A) zero and (B)(1) the Closing Indicative Value on the applicable Early Redemption Valuation Date minus (2) the Early Redemption Charge, calculated by the Calculation Agent.

Procedures for Early Redemption

If a holder wishes to offer its ETNs to Credit Suisse for redemption, such holder’s broker or other person with whom such holder holds its ETNs must follow the following procedures:

- Deliver a notice of redemption (the “**Redemption Notice**”), to Credit Suisse via email or other electronic delivery as requested by Credit Suisse. If such Redemption Notice is delivered prior to 4:00 p.m., New York City time, on any Business Day, the immediately following Trading Day will be the applicable “**Early Redemption Valuation Date**”. Otherwise, the second following Trading Day will be the applicable Early Redemption Valuation Date. If Credit Suisse receives a holder’s Redemption Notice no later than 4:00 p.m., New York City time, on any Business Day, Credit Suisse will respond by sending its broker an acknowledgment of the Redemption Notice accepting such redemption request by 7:30 p.m., New York City time, on the Business Day prior to the applicable Early Redemption Valuation Date. Credit Suisse or its affiliate must acknowledge to the holder’s broker acceptance of the Redemption Notice in order for such redemption request to be effective;
- Notwithstanding the foregoing, Credit Suisse may, at its option, waive the requirement that the Redemption Notice be delivered as set forth above, if confirmed by Credit Suisse that a written indication of an offer for early redemption has otherwise been accepted by Credit Suisse. Any such written indication that is delivered after 4:00 p.m., New York City time, on any Business Day, will be deemed to have been made on the following Business Day. For the avoidance of doubt, a holder may choose to comply with the procedures set forth above in lieu of the procedures in this clause, irrespective of any waiver by Credit Suisse;
- Cause the holder’s DTC custodian to book a delivery versus payment trade with respect to the ETNs on the applicable Early Redemption Valuation Date at a price equal to the applicable Early Redemption Amount, facing us; and
- Cause the holder’s DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m. New York City time, on the applicable Early Redemption Date (the third Business Day following the Early Redemption Valuation Date).

A holder is responsible for (i) instructing or otherwise causing its broker to provide the Redemption Notice and (ii) its broker satisfying the additional requirements as set forth in the second and third bullets above in order for the redemption to be effected. Different

brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, a holder should consult the brokerage firm through which it owns its interest in the ETNs in respect of such deadlines. If Credit Suisse does not (i) receive the Redemption Notice from the relevant holder's broker by 4:00 p.m. and (ii) deliver an acknowledgment of such Redemption Notice to such broker accepting such redemption request by 7:30 p.m., on the Business Day prior to the applicable Early Redemption Valuation Date, such notice will not be effective for such Business Day and Credit Suisse will treat such Redemption Notice as if it was received on the next Business Day. Any redemption instructions for which Credit Suisse receives a valid confirmation in accordance with the procedures described above will be irrevocable after Credit Suisse confirms a holder's offer for early redemption.

Because the Early Redemption Amount a holder will receive for each ETN will not be determined until the close of trading on the applicable Early Redemption Valuation Date, a holder will not know the applicable Early Redemption Amount at the time such holder exercises its redemption right and will bear the risk that its ETNs will decline in value between the time of such holder's exercise and the time at which the Early Redemption Amount is determined.

Acceleration at Our Option or Upon an Acceleration Event

We have the right to accelerate the ETNs in whole or in part on any Business Day occurring on or after the Inception Date (an "**Optional Acceleration**"). In addition, if an Acceleration Event (as defined herein) occurs at any time with respect to the ETNs, we will have the right to accelerate all or any portion of the outstanding ETNs (an "**Event Acceleration**"). Upon an acceleration of all of the outstanding ETNs, holders will be entitled to receive a cash payment per ETN in an amount (the "**Accelerated Redemption Amount**") equal to the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Values of such ETNs during the Accelerated Valuation Period. If fewer than all of the outstanding ETNs are accelerated, the Accelerated Redemption Amount will be the Closing Indicative Value on the Accelerated Valuation Date. If less than all the ETNs are to be redeemed pursuant to an Optional Acceleration or an Event Acceleration, the trustee shall select, pro rata, by lot or in such manner as it deems appropriate and fair, the ETNs to be redeemed pursuant to such acceleration. ETNs may be accelerated in part in multiples of 10,000 ETNs, or an integral multiple of 10,000 ETNs in excess thereof. We will provide at least five (5) Business Days' notice of any ETNs to be accelerated and, in the case of any ETNs selected for partial redemption, the stated principal amount thereof to be redeemed. All provisions relating to the acceleration of the ETNs to be redeemed only in part, relate to the portion of the stated principal amount of ETNs which has been or is to be redeemed pursuant to these acceleration provisions.

In the case of an Optional Acceleration of all outstanding ETNs, the "**Accelerated Valuation Period**" shall be a period of five (5) consecutive Trading Days specified in our notice of Optional Acceleration, the first Trading Day of which shall be at least two (2) Business Days after the date on which we give notice of such Optional Acceleration. In the case of an Event Acceleration of all outstanding ETNs, the "Accelerated Valuation Period" shall be a period of five (5) consecutive Trading Days, the first Trading Day of which shall be the day on which we give notice of such Event Acceleration (or, if such day is not a Trading Day, the next following Trading Day). In the case of an acceleration of less than all outstanding ETNs, the "**Accelerated Valuation Date**" will be the first Trading Day following the date of our notice of acceleration. The Accelerated Redemption Amount will be payable on the third Business Day following the Accelerated Valuation Date or the third Business Day following the last Trading Day in the Accelerated Valuation Period as the case may be (such date the "**Acceleration Date**"). We will give notice of any acceleration of the ETNs through customary channels used to deliver notices to holders of exchange traded notes.

Any payment holders will be entitled to receive is subject to our ability to pay our obligations as they become due.

An "**Acceleration Event**" means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located that (i) makes it illegal for CSi to hold, acquire or dispose of options or futures contracts relating to the Index or the GLD Shares or options, futures, swaps or other derivatives on the Index, the GLD Shares or the Options (including but not limited to exchange-imposed position limits), (ii) shall materially increase the cost to the Issuer, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the ETNs, (iii) shall have a material adverse effect on any of these parties' ability to perform their obligations in connection with the ETNs or (iv) shall materially affect our ability to issue or transact in exchange traded notes similar to the ETNs, each as determined by us or CSi, as the Calculation Agent;
- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after the Inception Date that (i) makes it illegal for CSi to hold, acquire or dispose of options or futures contracts relating to the Index or the GLD Shares or options, futures, swaps or other derivatives on the Index or the futures contracts relating to the Index, the GLD Shares or the Options (including but not limited to exchange-imposed position limits), (ii) shall materially increase the cost to the Issuer, our affiliates, third parties with

whom we transact or similarly situated third parties in performing our or their obligations in connection with the ETNs, (iii) shall have a material adverse effect on the ability of the Issuer, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the ETNs or (iv) shall materially affect our ability to issue or transact in exchange traded notes similar to the ETNs, each as determined by us or CSI, as the Calculation Agent;

- (c) any event that occurs on or after the Inception Date that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for CSI to hold, acquire or dispose of options contracts relating to the Index or the GLD Shares or options, futures, swaps or other derivatives on the Index, the GLD Shares or the Options (including but not limited to exchange-imposed position limits), (ii) for the Issuer, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the ETNs or (iii) for us to issue or transact in exchange traded notes similar to the ETNs, each as determined by us or CSI, as the Calculation Agent;
- (d) any event, as determined by us or CSI, as the Calculation Agent, that we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the ETNs, or realize, recover or remit the proceeds of any such transaction or asset;
- (e) if at any point, the Intraday Indicative Value is equal to or less than five percent (5%) of the prior day's Closing Indicative Value of such ETNs; or
- (f) as determined by the Calculation Agent, the primary exchange or market for trading for the ETNs, if any, announces that pursuant to the rules of such exchange or market, as applicable, the ETNs cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

“Primary Exchange” means the primary exchange on which options or futures contracts relating to the Index or the GLD Shares are traded, as determined by the Calculation Agent, which is initially the Chicago Board Options Exchange (CBOE).

“Related Exchange” means each exchange or quotation system where trading has a material effect (as determined by the Calculation Agent) for the overall market for futures or options contracts relating to the Index or the GLD Shares.

Market Disruption Events

The Calculation Agent will be solely responsible for the determination and calculation of any adjustments to any Index Component and of any related determinations and calculations with respect to any event described below and its determinations and calculations will be conclusive absent manifest error.

A **“Market Disruption Event”** is:

- (a) the occurrence or existence of a suspension, absence or material limitation of trading of the Index Components on the relevant exchange for such Index Component for more than two hours of trading or during the one-half hour period preceding the close of the principal trading session on such relevant exchange;
- (b) a breakdown or failure in the price and trade reporting systems of the relevant exchange for any Index Component, as a result of which the reported trading prices for the Index Component during the last one-half hour preceding the close of the principal trading session on such relevant exchange are materially inaccurate;
- (c) the occurrence or existence of a suspension, absence or material limitation of trading on the primary related exchange or market for trading in futures or options contracts related to any Index Component for more than two hours of trading during, or during the one-half hour period preceding the close of the principal trading session for such related exchange or market;
- (d) a decision to permanently discontinue trading in those related futures or options contracts; or
- (e) failure of the Index Calculation Agent to publish the level of the Index, including as a result of any disruption of the Index Components;

in each case, as determined by the Calculation Agent in its sole discretion; and in each case a determination by the Calculation Agent in its sole discretion that any event described above materially interfered with our ability or the ability of any of our affiliates to effect transactions in the Index Component or any instrument related to the Index Component or to adjust or unwind all or a material portion of any hedge position in the Index Component with respect to the ETNs.

For the purpose of determining whether a market disruption event in respect of an Index Component has occurred:

- (a) a limitation on the hours or number of days of trading will not constitute a market disruption event if it results from an announced change in the regular business hours of the relevant exchange for such Index Component or the primary related exchange or market for trading in futures or options contracts related to such Index Component;
- (b) limitations pursuant to NYSE Rule 80B (or any applicable rule or regulation enacted or promulgated by the NYSE, any other U.S. self-regulatory organization, the SEC or any other relevant authority of scope similar to NYSE Rule 80B) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading; and
- (c) a suspension of trading in futures or options contracts related to such Index Component by the primary related exchange or market for trading in such contracts, if available, by reason of:
 - (i) a price change exceeding limits set by such exchange or market;
 - (ii) an imbalance of orders relating to such contracts; or
 - (iii) a disparity in bid and ask quotes relating to such contracts;
 will, in each such case, constitute a suspension, absence or material limitation of trading in futures or options contracts related to such Index Component; and
- (d) a “suspension, absence or material limitation of trading” on the primary related exchange or market on which futures or options contracts related to such Index Component are traded will not include any time when such exchange or market is itself closed for trading under ordinary circumstances;

in each case, as determined by the Calculation Agent in its sole discretion.

If the Calculation Agent determines that a Market Disruption Event occurs or is continuing on any Valuation Date (including, without limitation, the Final Valuation Date, the Early Redemption Valuation Date, or any Valuation Date in the Accelerated Valuation Period or Final Valuation Period), that Valuation Date will be postponed until the first Trading Day on which no Market Disruption Event occurs or is continuing, unless a Market Disruption Event occurs or is continuing for each of the five (5) Trading Days following the applicable scheduled Valuation Date. In that case, the fifth Trading Day following the applicable scheduled Valuation Date shall be deemed to be the applicable Valuation Date, notwithstanding the fact that a Market Disruption Event occurred or was continuing on such Trading Day, and the Calculation Agent will determine the applicable Closing Indicative Value using an appropriate Closing Level of the Index on that deemed Valuation Date taking into account the nature and duration of such Market Disruption Event. If any Valuation Date in the Accelerated Valuation Period or Final Valuation Period is postponed as described above, each subsequent Valuation Date in the Accelerated Valuation Period or Final Valuation Period will be postponed by the same number of Trading Days. In addition, if the Final Valuation Date, the Valuation Date corresponding to an Early Redemption Date or the last scheduled Valuation Date in the Accelerated Valuation Period is postponed, the Maturity Date, the corresponding Early Redemption Date or the Acceleration Date, as the case may be, will be postponed until the date three (3) Business Days following such Valuation Date, as postponed.

Default Amount on Acceleration

For the purpose of determining whether the holders of our senior medium-term notes, of which the ETNs are a part, are entitled to take any action under the indenture, we will treat the stated principal amount of each ETN outstanding as the stated principal amount of that ETN. Although the terms of the ETNs may differ from those of the other senior medium-term notes, holders of specified percentages in stated principal amount of all senior medium-term notes, together in some cases with other series of our debt securities, will be able to take action affecting all the senior medium-term notes, including the ETNs. This action may involve changing some of the terms that apply to the senior medium-term notes, accelerating the maturity of the senior medium-term notes after a default or waiving some of our obligations under the indenture.

In case an event of default with respect to ETNs shall have occurred and be continuing, the amount declared due and payable upon any acceleration of the ETNs will be determined by the Calculation Agent, and will equal, for each ETN that a holder then holds, the Closing Indicative Value determined by the Calculation Agent occurring on the Trading Day following the date on which the ETNs were declared due and payable.

Further Issuances

We may, from time to time, without notice to or the consent of the holders of the ETNs, create and issue additional securities having the same terms and conditions as the ETNs, and ranking on an equal basis with the ETNs in all respects.

Discontinuation or Modification of the Index

If the Index Sponsors discontinue publication of the Index and the Index Sponsors or anyone else publishes a substitute index that the Calculation Agent determines is comparable to the Index, then the Calculation Agent will permanently replace the original Index

with that substitute index (the “**Successor Index**”) for all purposes, and all provisions described herein as applying to the Index will thereafter apply to the Successor Index instead. If the Calculation Agent replaces the original Index with a Successor Index, then the Calculation Agent will determine the Early Redemption Amount, Accelerated Redemption Amount or Maturity Redemption Amount (each, a “**Redemption Amount**”) and the Coupon Amount, as applicable, by reference to the Successor Index.

If the Calculation Agent determines that the publication of the Index is discontinued and there is no successor index, the Calculation Agent will determine the level of the Index, and thus the applicable Redemption Amount, by a computation methodology that the Calculation Agent determines will as closely as reasonably possible replicate the Index.

If the Calculation Agent determines that the Index, the Options or the method of calculating the Index is changed at any time in any respect, including whether the change is made by the Index Sponsors under their existing policies or following a modification of those policies, is due to the publication of a successor index, is due to events affecting the GLD Shares or the Options, or is due to any other reason and is not otherwise reflected in the level of the Index by the Index Sponsors pursuant to the Index methodology, then the Calculation Agent will be permitted (but not required) to make such adjustments in the Index or the method of its calculation as it believes are appropriate to ensure that the Closing Level of the Index used to determine the applicable Redemption Amount is equitable.

Manner of Payment and Delivery

Any payment on or delivery of the ETNs at maturity will be made to accounts designated by holders and approved by us, or at the office of the trustee in New York City, but only when the ETNs are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Role of the Calculation Agent

Credit Suisse International (“**CSI**”), an affiliate of ours and the Calculation Agent, will, in its reasonable discretion, make certain calculations and determinations that may impact the value of the ETNs, including determination of the arithmetic average of the Closing Indicative Values where applicable, a split or reverse split of the ETNs, calculation of default amounts, Market Disruption Events, any Successor Index, Business Days and Trading Days, the Current Principal Amount, the Daily Investor Fee amount, the Daily Index Factor, the Coupon Amount, the Closing Level of the Index on any Trading Day, the Maturity Date, any Early Redemption Dates, the Acceleration Date, the amount payable in respect of a holder’s ETNs at maturity, upon early redemption or acceleration and any other calculations or determinations to be made by the Calculation Agent as specified herein.

If the Calculation Agent ceases to perform its role, we will either, at our sole discretion, perform such role, appoint another party to do so or accelerate the ETNs.

We may appoint a different Calculation Agent from time to time without consent and without notifying holders.

Role of the Index Calculation Agent

We have initially appointed NASDAQ OMX as an Index Calculation Agent. The Index Calculation Agent will have the sole responsibility to calculate and disseminate the Closing Indicative Value and the Intraday Indicative Value of the ETNs. The Index Sponsors may appoint a different Index Calculation Agent from time to time without consent and without notifying holders.

Description of Credit Suisse X-Links Silver Shares Covered Call ETNs due April 21, 2033

Defined terms used within this subsection are defined only with respect to the ETNs listed in the subsection heading above and described within this subsection.

General

The return on the Credit Suisse X-Links Silver Shares Covered Call ETNs due April 21, 2033 (“**ETNs**”) will be based on the performance of the Credit Suisse NASDAQ Silver FLOWST[™] 106 Index (the “**Index**”), as reflected by their Indicative Value, calculated

as set forth below. The Index measures the return of a “covered call” strategy on the shares of the iShares[®] Silver Trust (the “**SLV Shares**”) by reflecting changes in the price of the SLV Shares and the notional option premiums received from the notional sale of monthly call options on the SLV Shares less notional transaction costs incurred in connection with the covered call strategy. The Index strategy consists of a hypothetical notional portfolio that takes a “long” position in SLV Shares and sells a succession of notional, approximately one-month, call options on the SLV Shares with a strike price of approximately 106% of the price of the SLV Shares exercisable on the option expiration date (the “**Options**” and together with the long position in SLV Shares, the “**Index Components**”). The notional sale of the Options is “covered” by the notional long position in the SLV Shares. The long position in the SLV Shares and the “short” call options are held in equal notional amounts (i.e., the short position in each Option is “covered” by the long position in the SLV Shares). This strategy is intended to provide exposure to silver through the notional positions in the SLV Shares and the Options that seeks to (i) generate periodic cash flows that a direct long-only ownership position in the SLV Shares would not, (ii) provide a limited offset to losses from downside market performance in the SLV Shares via the cash flows from option premiums and (iii) provide limited potential upside participation in the performance of the SLV Shares. The level of the Index on any day reflects the value of the notional long position in the SLV Shares and the notional Option premium, reduced based on the value of the Options then outstanding. The ETNs will not participate in the potential upside of the SLV Shares beyond the applicable strike price of the Options and notional transaction costs. The Index is subject to the policies of CSI and Nasdaq, Inc. (the “**Index Sponsors**”) and is subject to the Index Sponsors’ discretion, including with respect to the implementation of, and changes to, the rules governing the Index methodology.

Inception, Issuance and Maturity

The initial issuance of ETNs priced on April 16, 2013 (the “**Inception Date**”) and settled on April 19, 2013 (the “**Initial Settlement Date**”). The “**Maturity Date**” is initially April 21, 2033, but the maturity of the ETNs may be extended at our option for up to two additional five-year periods, as described herein.

Intraday Indicative Value

The “**Intraday Indicative Value**” of the ETNs is designed to reflect the economic value of the ETNs at a given time. The Intraday Indicative Value of the ETNs will be calculated and published by the Index Calculation Agent every fifteen (15) seconds on each Trading Day during normal trading hours so long as no Market Disruption Event has occurred or is continuing and will be disseminated over the consolidated tape or other major market data vendor. The Intraday Indicative Value of the ETNs at any time is based on the most recent intraday level of the Index. It is calculated using the same formula as the Closing Indicative Value, except that instead of using the Closing Level of the Index, the calculation is based on the most recent reported level of the Index at the particular time (or, if the day on which such time occurs is not a Trading Day, as determined by the Calculation Agent).

At any time at which a Market Disruption Event has occurred and is continuing, there shall be no Intraday Indicative Value. If the Intraday Indicative Value of the ETNs is equal to or less than zero at any time or the Closing Indicative Value is equal to zero on any Trading Day, the Closing Indicative Value of the ETNs on that day, and all future days, will be zero.

Neither the Intraday Indicative Value nor the Closing Indicative Value calculation is intended as a price or quotation, or as an offer or solicitation for the purchase, sale, redemption, acceleration or termination of a holder’s ETNs, nor will it reflect hedging or transaction costs, credit considerations, market liquidity or bid-offer spreads. The Index Calculation Agent is responsible for computing and disseminating the ETN’s Indicative Values. Published levels of the Index from the Index Calculation Agent may occasionally be subject to delay or postponement. Any such delays or postponements will affect the current level of the Index and therefore the Intraday Indicative Value of the ETNs. The actual trading price of the ETNs may be different from their Intraday Indicative Value or Closing Indicative Value.

The actual trading price of the ETNs at any time may vary significantly from the Intraday Indicative Value at such time. The trading price of the ETNs at any time is the price that holders may be able to buy or sell their ETNs in the secondary market at such time, if one exists.

The trading price of the ETNs at any time is the price at which a holder may be able to buy or sell its ETNs in the secondary market at such time, if one exists. In the absence of an active secondary market for the ETNs, the last reported trading price may not reflect the actual price at which a holder may be able to buy or sell its ETNs at a particular time. The trading price of the ETNs at any time may vary significantly from their Indicative Value at such time due to, among other things, imbalances of supply and demand, lack of liquidity, transaction costs, credit considerations and bid-offer spreads.

The closing price of the ETNs will be published on each Trading Day under the ticker symbol “SLVO”. Any premium or discount may be reduced or eliminated at any time. Paying a premium purchase price of the ETNs over the Intraday Indicative Value or the Closing Indicative Value of the ETNs could lead to significant losses in the event holders sell their ETNs at a time when such premium is no longer present in the market place or such ETNs are redeemed by us (including pursuant to an acceleration at our option), in which case holders will be entitled to receive a cash payment based on the Closing Indicative Value on the relevant Valuation Date(s).

The ETNs may be redeemed or accelerated at any time, subject to the conditions described herein.

As discussed in “Payment Upon Early Redemption” below, a holder may, subject to certain restrictions, provide a Redemption Notice on any Business Day during the term of the ETNs beginning on April 17, 2013 through April 7, 2033 (or, if the maturity of the ETNs is extended, five (5) scheduled Trading Days prior to the scheduled Final Valuation Date, as extended) (for an anticipated April 8, 2033 Early Redemption Valuation Date and an anticipated Early Redemption Date of April 13, 2033 or, if the maturity of the ETNs is extended, an Early Redemption Valuation Date four (4) scheduled Trading Days prior to the scheduled Final Valuation Date, as extended, and an Early Redemption Date one scheduled Business Day prior to the scheduled Final Valuation Date, as extended). If a holder elects to offer its ETNs to Credit Suisse for redemption, such holder must offer at least the applicable Minimum Redemption Amount at one time for redemption on any Early Redemption Date.

In addition, we have the right to accelerate the ETNs in whole or in part at any time on any Business Day occurring on or after the Inception Date or upon the occurrence of certain events described herein. Upon an acceleration of all of the outstanding ETNs, holders will be entitled to receive a cash payment per ETN in an amount (the “**Accelerated Redemption Amount**”) equal to the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Values of such ETNs during the Accelerated Valuation Period. If fewer than all of the outstanding ETNs are accelerated, the Accelerated Redemption Amount will be the Closing Indicative Value on the Accelerated Valuation Date. If less than all the ETNs are to be redeemed pursuant to an Optional Acceleration or an Event Acceleration, the trustee shall select, pro rata, by lot or in such manner as it deems appropriate and fair, the ETNs to be redeemed pursuant to such acceleration. ETNs may be accelerated in part in multiples of 10,000 ETNs, or an integral multiple of 10,000 ETNs in excess thereof.

The last date on which Credit Suisse will redeem the ETNs at a holder’s option will be April 13, 2033 (or, if the maturity of the ETNs is extended, one scheduled Business Day prior to the scheduled Maturity Date, as extended). As such, a holder must offer its ETNs for redemption no later than April 7, 2033 (or, if the maturity of the ETNs is extended, five (5) scheduled Trading Days prior to the scheduled Final Valuation Date, as extended). The daily redemption feature is intended to induce arbitrageurs to counteract any trading of the ETNs at a premium or discount to their Indicative Value, although there can be no assurance that arbitrageurs will employ the redemption feature in this manner.

Indicative Value

The Indicative Value of the ETNs is the Intraday Indicative Value or the Closing Indicative Value of the ETNs, as applicable.

Split or Reverse Split of the ETNs

The Calculation Agent may initiate a split or reverse split of the ETNs on any Trading Day. If the Calculation Agent decides to initiate a split or reverse split, the Calculation Agent will issue a notice to holders of the ETNs and a press release announcing the split or reverse split, specifying the effective date of the split or reverse split. The Calculation Agent will determine the ratio of such split or reverse split, as the case may be, using relevant market indicia, and will adjust the terms of the ETNs accordingly. Any adjustment of the closing value will be rounded to 8 decimal places.

In the case of a reverse split, we reserve the right to address odd numbers of ETNs (commonly referred to as “**partials**”) in a manner determined by the Calculation Agent in its sole discretion. A split or reverse split of the ETNs will not affect the aggregate stated principal amount of ETNs held by an investor, other than to the extent of any “partial” ETNs, but it will affect the number of ETNs an investor holds, the denominations used for trading purposes on the exchange and the trading price, and may affect the liquidity, of the ETNs on the exchange.

If the ETNs undergo a subsequent split or reverse split, the Current Principal Amount, Closing Indicative Value and Intraday Indicative Value of the ETNs will be adjusted accordingly.

Neither the Closing Indicative Value nor the Intraday Indicative Value is the same as the closing price or any other trading price of the ETNs in the secondary market. The trading price of the ETNs at any time may vary significantly from the Closing Indicative Value and Intraday Indicative Value of the ETNs at such time.

Credit Suisse implemented a 1-for-20 reverse split, effective September 27, 2022.

Coupon Amount

On each Coupon Payment Date, for each \$400.00 stated principal amount ETN, holders on the Coupon Record Date will be entitled to receive a variable cash payment equal to the Closing Indicative Value on the Index Business Day immediately preceding the relevant Index Distribution Date multiplied by the Coupon Percentage for that Index Distribution Date. The Coupon will be paid on the Coupon Payment Date to the holder of record on the applicable Coupon Record Date. No Coupon Amount will be due or payable in the event a holder elects to offer its ETNs for early redemption or we accelerate the maturity of the ETNs.

The Coupon Percentage in respect of an Index Distribution Date will be the Distribution for such Index Distribution Date divided by the Closing Level of the Index the Index Business Day immediately preceding the Index Distribution Date. The Distribution represents the notional monthly call premium earned on the sale of the call options written on the SLV Shares during the immediately preceding Index Rebalancing Period pursuant to the Index methodology.

The premiums generated from the notional sales of the Options will be subtracted monthly from the Index and paid to holders of the ETNs in the form of a Coupon Amount, the amount of which is determined based on the notional premiums received from the sale of the Options during the preceding Rebalancing Period as described below.

The “**Index Rebalancing Period**” refers to the five (5) consecutive Index Calculation Days beginning on and including the Index Calculation Day that is ten (10) calendar days prior to the Expiry Date (as defined below) of the relevant Options (each, a “**Roll Date**”). The Index will be rebalanced at the end of each Roll Date in accordance with the following steps:

- First, on the Index Calculation Day preceding the first Roll Date of each month, the strike price of the new Option is determined. The strike price will be the lowest listed strike price that is above 106% of the price per Share as of the 4:00 p.m. New York City time on such date of determination. Then, the Index will roll its monthly exposure over the next five (5) consecutive Index Calculation Days. The roll percentage is the proportion of the expiring position being rolled into a new position on each Roll Date.
- At the end of the first Roll Date, and on each successive Roll Date of such Index Rebalancing Period, the Index will notionally sell the new Option. Additionally, as of the end of each such Roll Date, the Index will hypothetically close out through repurchase 20% (or such greater amount in the event of roll disruptions) of the Options notionally sold during the previous Index Rebalancing Period (the expiring Options); the Index will notionally liquidate SLV Shares Units in an amount sufficient to fund the notional repurchase.
- Finally, on the last Roll Date of such Index Rebalancing Period, the Index will determine the amount of the notional Option premium, which will, on the close of the last Roll Date of the next following Index Rebalancing Period, be subtracted from the Index as a Distribution and paid to holders of the ETNs in the form of the Coupon Amount.

An Index Distribution Date will be the date on which the Distribution is subtracted from the level of the Index pursuant to the rules of the Index, which will occur on the last Roll Date of a given Index Rebalancing Period.

The Coupon Amount is calculated by reference to the notional Distribution from the Index, which will decrease the level of the Index (and therefore the value of the ETNs), as the Distribution comes directly from the notional portfolio reflected by the Index Components. When the Distribution is deducted from the Index on the Index Distribution Date, the Coupon Amount will be added to the Closing Indicative Value and the Intraday Indicative Value of the ETNs. At the market opening on the Ex-Coupon Date, the ETNs will trade on an ex-coupon basis, adjusted for the Coupon Amount, meaning that the Coupon Amount will no longer be included in the Closing Indicative Value or the Intraday Indicative Value of the ETNs. For a holder to receive the upcoming Coupon Amount, the holder must own the ETNs on the Coupon Record Date.

The “**Ex-Coupon Date**” means, with respect to each Coupon Amount, the first Trading Day on which the ETNs trade without the right to receive such Coupon Amount.

Denomination

Prior to September 27, 2022, the denomination and stated principal amount of each ETN was \$20.00. Credit Suisse implemented a 1-for-20 reverse split of the ETNs, effective September 27, 2022. As of September 27, 2022, the denomination and stated principal

amount of each ETN is \$400.00. ETNs may be issued at a price that is higher or lower than the stated principal amount, based on the Indicative Value of the ETNs at that time.

Payment at Maturity

At maturity, holders of the ETNs will be entitled to receive a cash payment on April 21, 2033 (the “**Maturity Date**”) (or, if the maturity of the ETNs is extended, on the scheduled Maturity Date, as extended) that is linked to the percentage change in the Closing Level of the Index from the Inception Date to the Closing Level calculated on the Final Valuation Date. Such holder’s cash payment at maturity will be equal to the “**Final Indicative Value**”, which will be the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Value on each of the immediately preceding five (5) Trading Days to and including the Final Valuation Date (the “**Final Valuation Period**”). We refer to the amount of such payment as the “**Maturity Redemption Amount**”. If the scheduled Maturity Date is not a Business Day, the Maturity Date will be postponed to the first Business Day following the scheduled Maturity Date. If the scheduled Final Valuation Date is not a Trading Day, the Final Valuation Date will be postponed to the next following Trading Day, in which case the Maturity Date will be postponed to the third Business Day following the Final Valuation Date as so postponed. In addition, if a Market Disruption Event occurs or is continuing on the Final Valuation Date, the Maturity Date will be postponed until the date three (3) Business Days following the Final Valuation Date, as postponed. No interest or additional payment will accrue or be payable as a result of any postponement of the Maturity Date. Any payment on the ETNs is subject to our ability to pay our obligations as they become due. In no event will the payment at maturity be less than zero.

The scheduled Maturity Date is initially April 21, 2033, but may be extended at our option for up to two (2) additional five-year periods. We may only extend the scheduled Maturity Date for five (5) years at a time. If we exercise our option to extend the maturity of the ETNs, we will notify DTC (the holder of the global note for the ETNs) and the trustee at least 45 but not more than 60 calendar days prior to the then scheduled Maturity Date. We will provide such notice to DTC and the trustee in respect of each five-year extension of the scheduled Maturity Date that we choose to effect.

If the Final Indicative Value is zero, the Maturity Redemption Amount will be zero.

The “**Closing Indicative Value**” on the Inception Date was \$20.00 (the “**Initial Indicative Value**”). The Closing Indicative Value on each calendar day following the Inception Date will be calculated by the Index Calculation Agent and will be equal to (1) the Current Principal Amount for such calendar day plus (2) for any day on or after the Index Distribution Date but prior to the Ex-Coupon Date for a given month, any accrued but unpaid Coupon Amount. The Closing Indicative Value will never be less than zero. If the Intraday Indicative Value is equal to or less than zero at any time or the Closing Indicative Value is equal to zero on any Trading Day, the Closing Indicative Value on that day, and all future days, will be zero. The Closing Indicative Value is not the same as the closing price or any other trading price of the ETNs in the secondary market. The trading price of the ETNs at any time may vary significantly from their Indicative Value at such time. If the ETNs undergo a subsequent split or reverse split, the Closing Indicative Value of the ETNs will be adjusted accordingly (see “**Split or Reverse Split of the ETNs**”). Such adjustment may adversely affect the trading price and liquidity of the ETNs. Even if the Closing Indicative Value or Intraday Indicative Value is equal to or less than zero at any time, the trading price of the ETNs may remain above zero. Buying the ETNs at such a time will lead to a complete loss of a holder’s investment.

The ETNs underwent a 1-for-20 reverse split, effective September 27, 2022. Since September 27, 2022, the Closing Indicative Value has been expressed in an amount per denomination and stated principal amount of \$400.00 based on the split-adjusted Current Principal Amount.

The “**Current Principal Amount**” on each calendar day following the Inception Date will be equal to (1)(a) the Current Principal Amount on the immediately preceding calendar day times (b) the Daily Index Factor on such calendar day minus (2) the Daily Investor Fee on such calendar day. The Current Principal Amount on the Inception Date was \$20.00.

The ETNs underwent a 1-for-20 reverse split, effective September 27, 2022. For the purposes of determining the Current Principal Amount on September 27, 2022, the Current Principal Amount on September 26, 2022, multiplied by 20 and rounded to 8 decimal places, shall be used in the formula above. Since September 27, 2022, the Current Principal Amount has been expressed in an amount per denomination and stated principal amount of \$400.00.

A “**Business Day**” is a Monday, Tuesday, Wednesday, Thursday or Friday that is not a day on which banking institutions in New York City or London, England generally are authorized or obligated by law, regulation or executive order to close.

A “**Trading Day**” is a day which is (i) an Index Business Day, (ii) an ETN Business Day and (iii) an Index Component Business Day for each of the Index Components.

An “**Index Business Day**” is a day on which the level of the Index is calculated and published.

With respect to any Index Component, an “**Index Component Business Day**” is a day on which trading is generally conducted on any markets on which such Index Component is traded.

An “**ETN Business Day**” is a day on which trading is generally conducted on the New York Stock Exchange, NYSE Arca and Nasdaq.

The “**Daily Index Factor**” on any Index Business Day will equal (a) the Closing Level of the Index on such Index Business Day divided by (b) the Closing Level of the Index on the immediately preceding Index Business Day. The Daily Index Factor is deemed to be one on any day that is not an Index Business Day.

On any calendar day, the “**Daily Investor Fee**” will be equal to the product of (1)(a) the Current Principal Amount on the immediately preceding calendar day times (b) the Daily Index Factor on such calendar day times (2)(a) the Investor Fee divided by (b) 365. The “Investor Fee” will be equal to 0.65%.

The ETNs underwent a 1-for-20 reverse split, effective September 27, 2022. For the purposes of determining the Daily Investor Fee on September 27, 2022, the Current Principal Amount on September 26, 2022, multiplied by 20 and rounded to 8 decimal places, shall be used in the formula above.

The ETNs do not guarantee any return of a holder’s investment. If the level of the Index decreases or does not increase sufficiently to offset the Daily Investor Fee (and in the case of Early Redemption, the Early Redemption Charge) over the term of the ETNs, a holder will receive less, and possibly significantly less, at maturity or upon early redemption or acceleration of the ETNs than the amount of such holder’s investment.

The “**Closing Level**” of the Index on any Trading Day will be the Closing Level published on Bloomberg under the ticker symbol “**QSLVO <Index>**” or any successor page on Bloomberg or any successor service, as applicable; provided that in the event a Market Disruption Event exists on a Valuation Date, the Calculation Agent will determine the Closing Level of the Index.

Any payment holders will be entitled to receive is subject to our ability to pay our obligations as they become due.

Payment Upon Early Redemption

Prior to maturity, a holder may, subject to certain restrictions described below, offer at least the applicable Minimum Redemption Amount or more of its ETNs to us for redemption on an Early Redemption Date during the term of the ETNs until April 7, 2033 (or, if the maturity of the ETNs is extended, five (5) scheduled Trading Days prior to the scheduled Final Valuation Date, as extended). If a holder elects to offer its ETNs for redemption, and the requirements for acceptance by us are met, such holder will be entitled to receive a cash payment per ETN on the Early Redemption Date equal to the Early Redemption Amount. Any payment holders will be entitled to receive on the ETNs is subject to our ability to pay our obligations as they become due.

A holder may exercise its early redemption right by causing its broker or other person with whom such holder holds its ETNs to deliver a Redemption Notice (as defined herein) to Credit Suisse. If such Redemption Notice is delivered prior to 4:00 p.m., New York City time, on any Business Day, the immediately following Trading Day will be the applicable “**Early Redemption Valuation Date**”. Otherwise, the second following Trading Day will be the applicable Early Redemption Valuation Date. See “Procedures for Early Redemption”.

A holder must offer for redemption at least 10,000 ETNs or an integral multiple of 10,000 ETNs in excess thereof at one time in order to exercise the right to cause us to redeem such holder’s ETNs on any Early Redemption Date (the “**Minimum Redemption Amount**”); provided that we or CSi as the Calculation Agent may from time to time reduce, in part or in whole, the Minimum Redemption Amount. Any such reduction will be applied on a consistent basis for all holders of the ETNs at the time the reduction becomes effective. If the ETNs undergo a subsequent split or reverse split, the minimum number of ETNs needed to exercise the right to cause us to redeem the ETNs will remain the same.

When a holder submits its ETNs for redemption in accordance with the redemption procedures described herein, such ETNs may remain outstanding (and be resold by us or an affiliate) or may be submitted by us for cancellation.

The “**Early Redemption Date**” is the third Business Day following an Early Redemption Valuation Date.

The “**Early Redemption Charge**” will equal up to 0.125% times the Closing Indicative Value on the Early Redemption Valuation Date.

The “**Early Redemption Amount**” is a cash payment per ETN equal to the greater of (A) zero and (B)(1) the Closing Indicative Value on the applicable Early Redemption Valuation Date minus (2) the Early Redemption Charge, if applicable, calculated by the Calculation Agent.

Procedures for Early Redemption

If a holder wishes to offer its ETNs to Credit Suisse for redemption, such holder’s broker or other person with whom such holder holds its ETNs must follow the following procedures:

- Deliver a notice of redemption (the “**Redemption Notice**”), to Credit Suisse via email or other electronic delivery as requested by Credit Suisse. If such Redemption Notice is delivered prior to 4:00 p.m., New York City time, on any Business Day, the immediately following Trading Day will be the applicable “**Early Redemption Valuation Date**”. Otherwise, the second following Trading Day will be the applicable Early Redemption Valuation Date. If Credit Suisse receives such Redemption Notice no later than 4:00 p.m., New York City time, on any Business Day, Credit Suisse will respond by sending such holder’s broker an acknowledgment of the Redemption Notice accepting such redemption request by 7:30 p.m., New York City time, on the Business Day prior to the applicable Early Redemption Valuation Date. Credit Suisse or its affiliate must acknowledge to such holder’s broker acceptance of the Redemption Notice in order for such redemption request to be effective;
- Notwithstanding the foregoing, Credit Suisse may, at its option, waive the requirement that the Redemption Notice be delivered as set forth above, if confirmed by Credit Suisse that a written indication of an offer for early redemption has otherwise been accepted by Credit Suisse. Any such written indication that is delivered after 4:00 p.m., New York City time, on any Business Day, will be deemed to have been made on the following Business Day. For the avoidance of doubt, a holder may choose to comply with the procedures set forth above in lieu of the procedures in this clause, irrespective of any waiver by Credit Suisse;
- Cause the holder’s DTC custodian to book a delivery versus payment trade with respect to the ETNs on the applicable Early Redemption Valuation Date at a price equal to the applicable Early Redemption Amount, facing us; and
- Cause the holder’s DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m. New York City time, on the applicable Early Redemption Date (the third Business Day following the Early Redemption Valuation Date).

A holder is responsible for (i) instructing or otherwise causing its broker to provide the Redemption Notice and (ii) its broker satisfying the additional requirements as set forth in the second and third bullets above in order for the redemption to be effected. Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, a holder should consult the brokerage firm through which it owns its interest in the ETNs in respect of such deadlines. If Credit Suisse does not (i) receive the Redemption Notice from the relevant holder’s broker by 4:00 p.m. and (ii) deliver an acknowledgment of such Redemption Notice to such holder’s broker accepting such redemption request by 7:30 p.m., on the Business Day prior to the applicable Early Redemption Valuation Date, such notice will not be effective for such Business Day and Credit Suisse will treat such Redemption Notice as if it was received on the next Business Day. Any redemption instructions for which Credit Suisse receives a valid confirmation in accordance with the procedures described above will be irrevocable after Credit Suisse confirms a holder’s offer for early redemption.

Because the Early Redemption Amount a holder will receive for each ETN will not be determined until the close of trading on the applicable Early Redemption Valuation Date, a holder will not know the applicable Early Redemption Amount at the time such holder exercises its redemption right and will bear the risk that its ETNs will decline in value between the time of such holder’s exercise and the time at which the Early Redemption Amount is determined.

Acceleration at Our Option or Upon an Acceleration Event

We have the right to accelerate the ETNs in whole or in part on any Business Day occurring on or after the Inception Date (an “**Optional Acceleration**”). In addition, if an Acceleration Event (as defined herein) occurs at any time with respect to the ETNs, we will have the right to accelerate all or any portion of the outstanding ETNs (an “**Event Acceleration**”). Upon an acceleration of all of the outstanding ETNs, holders will be entitled to receive a cash payment per ETN in an amount (the “**Accelerated Redemption Amount**”) equal to the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Values of such ETNs during the Accelerated Valuation Period. If fewer than all of the outstanding ETNs are accelerated, the Accelerated Redemption Amount will be the Closing Indicative Value on the Accelerated Valuation Date. If less than all the ETNs are to be redeemed pursuant to an Optional Acceleration or an Event Acceleration, the trustee shall select, pro rata, by lot or in such manner as it deems appropriate and fair, the ETNs to be redeemed pursuant to such acceleration. ETNs may be accelerated in part in multiples of 10,000 ETNs, or an integral multiple of 10,000 ETNs in excess thereof. We will provide at least five (5) Business Days’ notice of any ETNs to be accelerated and, in the case of any ETNs selected for partial redemption, the stated principal amount thereof to be redeemed. All

provisions relating to the acceleration of the ETNs to be redeemed only in part, relate to the portion of the stated principal amount of ETNs which has been or is to be redeemed pursuant to these acceleration provisions.

In the case of an Optional Acceleration of all outstanding ETNs, the “**Accelerated Valuation Period**” shall be a period of five (5) consecutive Trading Days specified in our notice of Optional Acceleration, the first Trading Day of which shall be at least two (2) Business Days after the date on which we give notice of such Optional Acceleration. In the case of an Event Acceleration of all outstanding ETNs, the “Accelerated Valuation Period” shall be a period of five (5) consecutive Trading Days, the first Trading Day of which shall be the day on which we give notice of such Event Acceleration (or, if such day is not a Trading Day, the next following Trading Day). In the case of an acceleration of less than all outstanding ETNs, the “**Accelerated Valuation Date**” will be the first Trading Day following the date of our notice of acceleration. The Accelerated Redemption Amount will be payable on the third Business Day following the Accelerated Valuation Date or the third Business Day following the last Trading Day in the Accelerated Valuation Period as the case may be (such date the “**Acceleration Date**”). We will give notice of any acceleration of the ETNs through customary channels used to deliver notices to holders of exchange traded notes.

Any payment holders will be entitled to receive is subject to our ability to pay our obligations as they become due.

An “**Acceleration Event**” means:

- (a) an amendment to or change (including any officially announced proposed change) in the laws, regulations or rules of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located that (i) makes it illegal for CSi to hold, acquire or dispose of options or futures contracts relating to the Index or the SLV Shares or options, futures, swaps or other derivatives on the Index, the SLV Shares or the Options (including but not limited to exchange-imposed position limits), (ii) shall materially increase the cost to the Issuer, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the ETNs, (iii) shall have a material adverse effect on any of these parties’ ability to perform their obligations in connection with the ETNs or (iv) shall materially affect our ability to issue or transact in exchange traded notes similar to the ETNs, each as determined by us or CSi, as the Calculation Agent;
- (b) any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules that is announced on or after the Inception Date that (i) makes it illegal for CSi to hold, acquire or dispose of options or futures contracts relating to the Index or the SLV Shares or options, futures, swaps or other derivatives on the Index or the futures contracts relating to the Index, the SLV Shares or the Options (including but not limited to exchange-imposed position limits), (ii) shall materially increase the cost to the Issuer, our affiliates, third parties with whom we transact or similarly situated third parties in performing our or their obligations in connection with the ETNs, (iii) shall have a material adverse effect on the ability of the Issuer, our affiliates, third parties with whom we transact or a similarly situated third party to perform our or their obligations in connection with the ETNs or (iv) shall materially affect our ability to issue or transact in exchange traded notes similar to the ETNs, each as determined by us or CSi, as the Calculation Agent;
- (c) any event that occurs on or after the Inception Date that makes it a violation of any law, regulation or rule of the United States (or any political subdivision thereof), or any jurisdiction in which a Primary Exchange or Related Exchange (each as defined herein) is located, or of any official administrative decision, judicial decision, administrative action, regulatory interpretation or other official pronouncement interpreting or applying those laws, regulations or rules, (i) for CSi to hold, acquire or dispose of options contracts relating to the Index or the SLV Shares or options, futures, swaps or other derivatives on the Index, the SLV Shares or the Options (including but not limited to exchange-imposed position limits), (ii) for the Issuer, our affiliates, third parties with whom we transact or similarly situated third parties to perform our or their obligations in connection with the ETNs or (iii) for us to issue or transact in exchange traded notes similar to the ETNs, each as determined by us or CSi, as the Calculation Agent;
- (d) any event, as determined by us or CSi, as the Calculation Agent, that we or any of our affiliates or a similarly situated party would, after using commercially reasonable efforts, be unable to, or would incur a materially increased amount of tax, duty, expense or fee (other than brokerage commissions) to, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the risk of the ETNs, or realize, recover or remit the proceeds of any such transaction or asset;
- (e) if at any point, the Intraday Indicative Value is equal to or less than five percent (5%) of the prior day’s Closing Indicative Value of such ETNs; or
- (f) as determined by the Calculation Agent, the primary exchange or market for trading for the ETNs, if any, announces that pursuant to the rules of such exchange or market, as applicable, the ETNs cease (or will cease) to be listed, traded or publicly quoted on such exchange or market, as applicable, for any reason and are not immediately re-listed, re-traded or re-quoted on an exchange or quotation system located in the same country as such exchange or market, as applicable.

“**Primary Exchange**” means the primary exchange on which options or futures contracts relating to the Index or the SLV Shares are traded, as determined by the Calculation Agent, which is initially the Chicago Board Options Exchange (CBOE).

“**Related Exchange**” means each exchange or quotation system where trading has a material effect (as determined by the Calculation Agent) for the overall market for futures or options contracts relating to the Index or the SLV Shares.

Any ETNs accelerated following an Acceleration Event will be cancelled on the Acceleration Date. Consequently, as of such Acceleration Date, the ETNs will no longer be considered outstanding.

Market Disruption Events

The Calculation Agent will be solely responsible for the determination and calculation of any adjustments to any Index Component and of any related determinations and calculations with respect to any event described below and its determinations and calculations will be conclusive absent manifest error.

A “**Market Disruption Event**” is:

- (a) the occurrence or existence of a suspension, absence or material limitation of trading of the Index Components on the relevant exchange for such Index Component for more than two hours of trading or during the one-half hour period preceding the close of the principal trading session on such relevant exchange;
- (b) a breakdown or failure in the price and trade reporting systems of the relevant exchange for any Index Component, as a result of which the reported trading prices for the Index Component during the last one-half hour preceding the close of the principal trading session on such relevant exchange are materially inaccurate;
- (c) the occurrence or existence of a suspension, absence or material limitation of trading on the primary related exchange or market for trading in futures or options contracts related to any Index Component for more than two hours of trading during, or during the one-half hour period preceding the close of the principal trading session for such related exchange or market;
- (d) a decision to permanently discontinue trading in those related futures or options contracts; or
- (e) failure of the Index Calculation Agent to publish the level of the Index, including as a result of any disruption of the Index Components;

in each case, as determined by the Calculation Agent in its sole discretion; and in each case a determination by the Calculation Agent in its sole discretion that any event described above materially interfered with our ability or the ability of any of our affiliates to effect transactions in the Index Component or any instrument related to the Index Component or to adjust or unwind all or a material portion of any hedge position in the Index Component with respect to the ETNs.

For the purpose of determining whether a market disruption event in respect of an Index Component has occurred:

- (a) a limitation on the hours or number of days of trading will not constitute a market disruption event if it results from an announced change in the regular business hours of the relevant exchange for such Index Component or the primary related exchange or market for trading in futures or options contracts related to such Index Component;
- (b) limitations pursuant to NYSE Rule 80B (or any applicable rule or regulation enacted or promulgated by the NYSE, any other U.S. self-regulatory organization, the SEC or any other relevant authority of scope similar to NYSE Rule 80B) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading; and
- (c) a suspension of trading in futures or options contracts related to such Index Component by the primary related exchange or market for trading in such contracts, if available, by reason of:
 - (i) a price change exceeding limits set by such exchange or market;
 - (ii) an imbalance of orders relating to such contracts; or
 - (iii) a disparity in bid and ask quotes relating to such contracts;

will, in each such case, constitute a suspension, absence or material limitation of trading in futures or options contracts related to such Index Component; and

- (d) a “suspension, absence or material limitation of trading” on the primary related exchange or market on which futures or options contracts related to such Index Component are traded will not include any time when such exchange or market is itself closed for trading under ordinary circumstances;

in each case, as determined by the Calculation Agent in its sole discretion.

If the Calculation Agent determines that a Market Disruption Event occurs or is continuing on any Valuation Date (including, without limitation, the Final Valuation Date, the Early Redemption Valuation Date, or any Valuation Date in the Accelerated Valuation Period or Final Valuation Period), that Valuation Date will be postponed until the first Trading Day on which no Market Disruption Event occurs or is continuing, unless a Market Disruption Event occurs or is continuing for each of the five (5) Trading Days following the applicable scheduled Valuation Date. In that case, the fifth Trading Day following the applicable scheduled Valuation Date shall be deemed to be the applicable Valuation Date, notwithstanding the fact that a Market

Disruption Event occurred or was continuing on such Trading

Day, and the Calculation Agent will determine the applicable Closing Indicative Value using an appropriate Closing Level of the Index on that deemed Valuation Date taking into account the nature and duration of such Market Disruption Event. If any Valuation Date in the Accelerated Valuation Period or Final Valuation Period is postponed as described above, each subsequent Valuation Date in the Accelerated Valuation Period or Final Valuation Period will be postponed by the same number of Trading Days. In addition, if the Final Valuation Date, the Valuation Date corresponding to an Early Redemption Date or the last scheduled Valuation Date in the Accelerated Valuation Period is postponed, the Maturity Date, the corresponding Early Redemption Date or the Acceleration Date, as the case may be, will be postponed until the date three (3) Business Days following such Valuation Date, as postponed.

Default Amount on Acceleration

For the purpose of determining whether the holders of our senior medium-term notes, of which the ETNs are a part, are entitled to take any action under the indenture, we will treat the stated principal amount of each ETN outstanding as the stated principal amount of that ETN. Although the terms of the ETNs may differ from those of the other senior medium-term notes, holders of specified percentages in stated principal amount of all senior medium-term notes, together in some cases with other series of our debt securities, will be able to take action affecting all the senior medium-term notes, including the ETNs. This action may involve changing some of the terms that apply to the senior medium-term notes, accelerating the maturity of the senior medium-term notes after a default or waiving some of our obligations under the indenture.

In case an event of default with respect to ETNs shall have occurred and be continuing, the amount declared due and payable upon any acceleration of the ETNs will be determined by the Calculation Agent, and will equal, for each ETN that a holder then holds, the Closing Indicative Value determined by the Calculation Agent occurring on the Trading Day following the date on which the ETNs were declared due and payable.

Further Issuances

We may, from time to time, without notice to or the consent of the holders of the ETNs, create and issue additional securities having the same terms and conditions as the ETNs, and ranking on an equal basis with the ETNs in all respects.

Discontinuation or Modification of the Index

If the Index Sponsors discontinue publication of the Index and the Index Sponsors or anyone else publishes a substitute index that the Calculation Agent determines is comparable to the Index, then the Calculation Agent will permanently replace the original Index with that substitute index (the “**Successor Index**”) for all purposes, and all provisions described herein as applying to the Index will thereafter apply to the Successor Index instead. If the Calculation Agent replaces the original Index with a Successor Index, then the Calculation Agent will determine the Early Redemption Amount, Accelerated Redemption Amount or Maturity Redemption Amount (each, a “**Redemption Amount**”) and the Coupon Amount, as applicable, by reference to the Successor Index.

If the Calculation Agent determines that the publication of the Index is discontinued and there is no successor index, the Calculation Agent will determine the level of the Index, and thus the applicable Redemption Amount, by a computation methodology that the Calculation Agent determines will as closely as reasonably possible replicate the Index.

If the Calculation Agent determines that the Index, the Options or the method of calculating the Index is changed at any time in any respect, including whether the change is made by the Index Sponsors under their existing policies or following a modification of those policies, is due to the publication of a successor index, is due to events affecting the SLV Shares or the Options, or is due to any other reason and is not otherwise reflected in the level of the Index by the Index Sponsors pursuant to the Index methodology, then the Calculation Agent will be permitted (but not required) to make such adjustments in the Index or the method of its calculation as it believes are appropriate to ensure that the Closing Level of the Index used to determine the applicable Redemption Amount is equitable.

Manner of Payment and Delivery

Any payment on or delivery of the ETNs at maturity will be made to accounts designated by holders and approved by us, or at the office of the trustee in New York City, but only when the ETNs are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Role of the Calculation Agent

Credit Suisse International (“CSi”), an affiliate of ours and the Calculation Agent, will, in its reasonable discretion, make certain calculations and determinations that may impact the value of the ETNs, including determination of the arithmetic average of the Closing Indicative Values where applicable, a split or reverse split of the ETNs, calculation of default amounts, Market Disruption Events, any Successor Index, Business Days and Trading Days, the Current Principal Amount, the Daily Investor Fee amount, the Daily Index Factor, the Coupon Amount, the Closing Level of the Index on any Trading Day, the Maturity Date, any Early Redemption Dates, the Acceleration Date, the amount payable in respect of a holder’s ETNs at maturity, upon early redemption or acceleration and any other calculations or determinations to be made by the Calculation Agent as specified herein.

If the Calculation Agent ceases to perform its role, we will either, at our sole discretion, perform such role, appoint another party to do so or accelerate the ETNs.

We may appoint a different Calculation Agent from time to time without consent and without notifying holders.

Role of the Index Calculation Agent

We have initially appointed Nasdaq, Inc. as an Index Calculation Agent. The Index Calculation Agent will have the sole responsibility to calculate and disseminate the Closing Indicative Value and the Intraday Indicative Value of the ETNs. The Index Sponsors may appoint a different Index Calculation Agent from time to time without consent and without notifying holders.

Description of Credit Suisse X-Links[®] Crude Oil Shares Covered Call ETNs due April 24, 2037

Defined terms used within this subsection are defined only with respect to the ETNs listed in the subsection heading above and described within this subsection.

General

The return on the Credit Suisse X-Links[®] Crude Oil Shares Covered Call ETNs due April 24, 2037 (“**ETNs**”) will be based on the performance of the price return version of the Credit Suisse Nasdaq WTI Crude Oil FLOWS[™] 106 Index (the “**Index**”), as reflected by their Indicative Value, calculated as set forth below. The Index measures the return of a “covered call” strategy on the shares of the United States Oil Fund[®] (the “**Oil Fund**”, and such shares the “**Reference Oil Shares**”) by reflecting changes in the price of the Reference Oil Shares and the notional option premiums received from the notional sale of monthly call options on the Reference Oil Shares less notional costs incurred in connection with the implementation of the covered call strategy (the “**Notional Transaction Costs**”). The Notional Transaction Costs reflect the monthly transaction costs of hypothetically buying and selling the call options and selling the Reference Oil Shares and equal 0.03%, 0.03% and 0.01%, respectively, *times* the closing price of the Reference Oil Shares on the date of such notional transactions and, which, on an annual basis, are expected to be approximately 0.84%. The actual cost will vary depending on the value of the Reference Oil Shares on the date of such transactions. The Index strategy consists of a hypothetical notional portfolio that takes a “long” position in Reference Oil Shares and sells a succession of notional, approximately one-month, call options on the Reference Oil Shares with a strike price of approximately 106% of the price of the Reference Oil Shares exercisable on the option expiration date (the “**Options**” and together with the long position in Reference Oil Shares, the “**Index Components**”). The notional sale of the Options is “covered” by the notional long position in the Reference Oil Shares. The long position in the Reference Oil Shares and the “short” call options are held in equal notional amounts (i.e., the short position in each Option is “covered” by the long position in the Reference Oil Shares). This strategy is intended to provide exposure to West Texas Intermediate light sweet crude oil (“**WTI crude oil**”) futures contract prices through the notional positions in the Reference Oil Shares and the Options that together seek to (i) generate periodic cash flows that a direct long-only ownership position in the Reference Oil Shares would not, (ii) provide a limited offset to losses from downside market performance in the Reference Oil Shares via the cash flows from option premiums and (iii) provide limited potential upside participation in the performance of the Reference Oil Shares. The level of the Index on any day reflects the value of (i) the notional long position in the Reference Oil Shares; (ii) the notional Option premium; and (iii) the notional short position in the Options then outstanding; net of the Notional Transaction Costs. The ETNs will not participate in the potential upside of the Reference Oil Shares beyond the applicable strike price of the Options and the level of the Index will be reduced by the Notional Transaction Costs. The Index is subject to the policies of CSi and Nasdaq, Inc. (the “**Index**”).

Sponsors”) and is subject to the Index Sponsors’ discretion, including with respect to the implementation of, and changes to, the rules governing the Index methodology.

Inception, Issuance and Maturity

The initial issuance of ETNs priced on April 25, 2017 (the “**Inception Date**”) and settled on April 28, 2017 (the “**Initial Settlement Date**”). The scheduled maturity date is initially April 24, 2037, but the maturity of the ETNs may be extended at our option for up to two additional five-year periods, as described herein.

Intraday Indicative Value

The “**Intraday Indicative Value**” of the ETNs is designed to reflect the economic value of the ETNs at a given time. The Intraday Indicative Value of the ETNs will be calculated and published by the Index Calculation Agent every fifteen (15) seconds on each Trading Day during normal trading hours so long as no Market Disruption Event has occurred or is continuing and will be disseminated over the consolidated tape or other major market data vendor. The Intraday Indicative Value of the ETNs at any time is based on the most recent intraday level of the Index. It is calculated using the same formula as the Closing Indicative Value, except that instead of using the Closing Level of the Index, the calculation is based on the most recent reported level of the Index at the particular time (or, if the day on which such time occurs is not a Trading Day, as determined by the Calculation Agent).

At any time at which a Market Disruption Event has occurred and is continuing, there shall be no Intraday Indicative Value. If the Intraday Indicative Value of the ETNs is equal to or less than zero at any time or the Closing Indicative Value is equal to zero on any Trading Day, the Closing Indicative Value of the ETNs on that day, and all future days, will be zero.

If the ETNs undergo a subsequent split or reverse split, the Current Principal Amount, Closing Indicative Value and Intraday Indicative Value of the ETNs will be adjusted accordingly. Neither the Closing Indicative Value nor the Intraday Indicative Value is the same as the closing price or any other trading price of the ETNs in the secondary market. The trading price of the ETNs at any time may vary significantly from the Closing Indicative Value and Intraday Indicative Value of the ETNs at such time.

Neither the Intraday Indicative Value nor the Closing Indicative Value calculation is intended as a price or quotation, or as an offer or solicitation for the purchase, sale, redemption, acceleration or termination of a holder’s ETNs, nor will it reflect hedging or transaction costs, credit considerations, market liquidity or bid-offer spreads. The Index Calculation Agent is responsible for computing and disseminating the ETN’s Indicative Values. Published levels of the Index from the Index Calculation Agent may occasionally be subject to delay or postponement. Any such delays or postponements will affect the current level of the Index and therefore the Intraday Indicative Value of the ETNs. The actual trading price of the ETNs may be different from their Intraday Indicative Value or Closing Indicative Value.

The actual trading price of the ETNs at any time may vary significantly from the Indicative Value at such time. The trading price of the ETNs at any time is the price that holders may be able to buy or sell their ETNs in the secondary market at such time, if one exists.

The trading price of the ETNs at any time is the price at which holders may be able to buy or sell their ETNs in the secondary market at such time, if one exists. In the absence of an active secondary market for the ETNs, the last reported trading price may not reflect the actual price at which holders may be able to buy or sell their ETNs at a particular time. The trading price of the ETNs at any time may vary significantly from their Indicative Value at such time due to, among other things, imbalances of supply and demand, lack of liquidity, transaction costs, credit considerations and bid-offer spreads.

The closing price of the ETNs will be published on each Trading Day under the ticker symbol “USOI”. Any premium or discount may be reduced or eliminated at any time. Paying a premium purchase price of the ETNs over the Intraday Indicative Value or the Closing Indicative Value of the ETNs could lead to significant losses in the event holders sell their ETNs at a time when such premium has declined or is no longer present in the market place or at maturity or upon early redemption or acceleration, in which case holders will be entitled to receive a cash payment based on the Closing Indicative Value on the relevant Valuation Date(s).

The ETNs may be redeemed or accelerated at any time, subject to the conditions described herein.

As discussed in “Payment Upon Early Redemption” below, holders may, subject to certain restrictions, provide a Redemption Notice on any Business Day during the term of the ETNs beginning on April 26, 2017 through April 14, 2037 (or, if the maturity of the ETNs is extended, five (5) scheduled Trading Days prior to the scheduled Final Valuation Date, as extended). Notwithstanding the foregoing, we will not accept a Redemption Notice submitted to us on any day after the Trading Day preceding the start of the Accelerated

Valuation Period. If a holder elects to offer its ETNs to Credit Suisse for redemption, such holder must offer at least the applicable Minimum Redemption Amount at one time for redemption on any Early Redemption Date. The daily redemption feature is intended to induce arbitrageurs to counteract any trading of the ETNs at a premium or discount to their Indicative Value, although there can be no assurance that arbitrageurs will employ the redemption feature in this manner.

In addition, on any Business Day on or after May 9, 2017, we have the right to accelerate all, but not less than all, of the issued and outstanding ETNs (an “**Optional Acceleration**”). Upon an Optional Acceleration, holders will be entitled to receive a cash payment per ETN in an amount (the “**Accelerated Redemption Amount**”) equal to the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Values of such ETNs during the Accelerated Valuation Period. The “**Accelerated Valuation Period**” shall be a period of five (5) consecutive Trading Days specified in our notice of Optional Acceleration, the first Trading Day of which shall be at least two (2) Business Days after the date on which we give notice of such Optional Acceleration. The Accelerated Redemption Amount will be payable on the third Business Day following the last Trading Day in the Accelerated Valuation Period (such payment date the “**Acceleration Date**”). We will give notice of any Optional Acceleration of the ETNs through customary channels used to deliver notices to holders of exchange traded notes.

Any payment holders will be entitled to receive on the ETNs is subject to our ability to pay our obligations as they become due.

Indicative Value

The “**Indicative Value**” of the ETNs is the Intraday Indicative Value or the Closing Indicative Value of the ETNs, as applicable.

Split or Reverse Split of the ETNs

The Calculation Agent may initiate a split or reverse split of the ETNs on any Trading Day. If the Calculation Agent decides to initiate a split or reverse split, the Calculation Agent will issue a notice to holders of the ETNs and a press release announcing the split or reverse split, specifying the effective date of the split or reverse split. The Calculation Agent will determine the ratio of such split or reverse split, as the case may be, using relevant market indicia, and will adjust the terms of the ETNs accordingly. Any adjustment of the closing value will be rounded to 8 decimal places.

In the case of a reverse split, we reserve the right to address odd numbers of ETNs (commonly referred to as “**partials**”) in a manner determined by the Calculation Agent in its sole discretion. A split or reverse split of the ETNs will not affect the aggregate stated principal amount of ETNs held by an investor, other than to the extent of any “partial” ETNs, but it will affect the number of ETNs an investor holds, the Current Principal Amount, the denominations used for trading purposes on the exchange and the trading price, and may affect the liquidity, of the ETNs on the exchange.

If the ETNs undergo a subsequent split or reverse split, the Current Principal Amount, Closing Indicative Value and Intraday Indicative Value of the ETNs will be adjusted accordingly.

Neither the Closing Indicative Value nor the Intraday Indicative Value is the same as the closing price or any other trading price of the ETNs in the secondary market. The trading price of the ETNs at any time may vary significantly from the Closing Indicative Value and Intraday Indicative Value of the ETNs at such time.

Credit Suisse implemented a 1-for-20 reverse split, effective September 27, 2022.

Coupon Amount

On each Coupon Payment Date, for each \$500.00 stated principal amount of the ETNs, holders on the Coupon Record Date will be entitled to receive a variable cash payment equal to the Closing Indicative Value on the Index Business Day immediately preceding the relevant Index Distribution Date multiplied by the Coupon Percentage for that Index Distribution Date. The Coupon will be paid on the Coupon Payment Date to the holder of record on the applicable Coupon Record Date. No Coupon Amount will be due or payable in the event a holder elects to offer its ETNs for early redemption or we accelerate the maturity of the ETNs. The initial Index Distribution Date was May 15, 2017 and the initial Coupon Payment Date was May 25, 2017.

The Coupon Percentage in respect of an Index Distribution Date will be the Distribution for such Index Distribution Date divided by the Closing Level of the Index the Index Business Day immediately preceding the Index Distribution Date. The Distribution represents

the notional monthly call premium earned on the sale of the call options written on the Reference Oil Shares during the immediately preceding Index Rebalancing Period pursuant to the Index methodology.

The premiums generated from the notional sales of the Options will be subtracted monthly from the Index and paid to holders of the ETNs in the form of a Coupon Amount, the amount of which is determined based on the notional premiums received from the sale of the Options during the preceding Rebalancing Period as described below.

The “**Index Rebalancing Period**” refers to the five (5) consecutive Index Calculation Days beginning on and including the Index Calculation Day that is ten (10) calendar days prior to the Expiry Date (as defined below) of the relevant Options (each, a “**Roll Date**”). The Index will be rebalanced at the end of each Roll Date in accordance with the following steps:

- First, on the Index Calculation Day preceding the first Roll Date of each month, the strike price of the new Option is determined. The strike price will be the lowest listed strike price that is above the Target Strike multiplied by the price per Reference Oil Share as of the 4:00 p.m. New York City time on such date of determination. Then, the Index will roll its monthly exposure over the next five (5) consecutive Index Calculation Days. The roll percentage is the proportion of the expiring position being rolled into a new position on each Roll Date.
- At the end of the first Roll Date, and on each successive Roll Date of such Index Rebalancing Period, the Index will notionally sell the new Option. Additionally, as of the end of each such Roll Date, the Index will hypothetically close out through repurchase 20% (or such greater amount in the event of roll disruptions) of the Options notionally sold during the previous Index Rebalancing Period (the expiring Options); the Index will notionally liquidate Reference Oil Shares in an amount sufficient to fund the notional repurchase.
- Finally, on the last Roll Date of such Index Rebalancing Period, the Index will determine the amount of the notional Option premium, which will, on the close of the last Roll Date of the next following Index Rebalancing Period, be subtracted from the Index as a Distribution and paid to holders of the ETNs in the form of the Coupon Amount.

An “**Index Distribution Date**” will be the date on which the Distribution is subtracted from the level of the Index pursuant to the rules of the Index, which will occur on the last Roll Date of a given Index Rebalancing Period.

The Coupon Amount is calculated by reference to the notional Distribution from the Index, which will decrease the level of the Index (and, therefore, the value of the ETNs), as the Distribution comes directly from the notional portfolio reflected by the Index Components. When the Distribution is deducted from the Index on the Index Distribution Date, the Coupon Amount will be added to the Closing Indicative Value and the Intraday Indicative Value of the ETNs. At the market opening on the Ex-Coupon Date, the ETNs will trade on an ex-coupon basis, adjusted for the Coupon Amount, meaning that the Coupon Amount will no longer be included in the Closing Indicative Value or the Intraday Indicative Value of the ETNs. For a holder to receive the upcoming Coupon Amount, the holder must own the ETNs on the Coupon Record Date.

The “**Ex-Coupon Date**”, with respect to each Coupon Amount, will be the first Trading Day on which the ETNs trade without the right to receive such Coupon Amount.

Denomination

Prior to September 27, 2022, the denomination and stated principal amount of each ETN was \$25.00. Credit Suisse implemented a 1-for-20 reverse split of the ETNs, effective September 27, 2022. As of September 27, 2022, the denomination and stated principal amount of each ETN is \$500.00. ETNs may be issued at a price that is higher or lower than the stated principal amount, based on the Indicative Value of the ETNs at that time.

Payment at Maturity

At maturity, holders of the ETNs will receive a cash payment on April 24, 2037 (the “**Maturity Date**”) (or, if the maturity of the ETNs is extended, on the scheduled Maturity Date, as extended). Such holder’s Payment at Maturity will be equal to the “**Final Indicative Value**”, which will be the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Value on each of the immediately preceding five (5) Trading Days to and including the Final Valuation Date (the “**Final Valuation Period**”). We refer to the amount of such payment as the “**Maturity Redemption Amount**”. If the scheduled Maturity Date is not a Business Day, the Maturity Date will be postponed to the first Business Day following the scheduled Maturity Date.

The “**Final Valuation Date**” is initially April 21, 2037, subject to extension as described below and postponement as a result of a Market Disruption Event as discussed under “**Market Disruption Events**”. If the scheduled Final Valuation Date is not a Trading Day, the Final Valuation Date will be postponed to the next following Trading Day, in which case the Maturity Date will be postponed to the third

Business Day following the Final Valuation Date, as so postponed. In addition, if a Market Disruption Event occurs or is continuing on the Final Valuation Date, the Maturity Date will be postponed until the date three (3) Business Days following the Final Valuation Date, as postponed. No interest or additional payment will accrue or be payable as a result of any postponement of the Maturity Date. Any payment on the ETNs is subject to our ability to pay our obligations as they become due. In no event will the Payment at Maturity be less than zero.

The scheduled Maturity Date is April 24, 2037, but may be extended at our option for up to two (2) additional five-year periods. We may only extend the scheduled Maturity Date for five (5) years at a time. If we exercise our option to extend the maturity of the ETNs, the Final Valuation Date for the ETNs will be the third scheduled Business Day prior to the scheduled Maturity Date, as extended. If we exercise our option to extend the maturity of the ETNs, we will notify DTC (the holder of the global note for the ETNs) and the trustee at least 45 but not more than 60 calendar days prior to the then scheduled Maturity Date. We will provide such notice to DTC and the trustee in respect of each five-year extension of the scheduled Maturity Date that we choose to effect.

If the Final Indicative Value is zero, the Maturity Redemption Amount will be zero.

The “**Closing Indicative Value**” on the Inception Date was equal to \$25.00 (the “**Initial Indicative Value**”). The Closing Indicative Value on each calendar day following the Inception Date will be calculated by the Index Calculation Agent and will be equal to (1) the Current Principal Amount for such calendar day *plus* (2) for any day on or after the Index Distribution Date but prior to the Ex-Coupon Date for a given month, any accrued but unpaid Coupon Amount. The Closing Indicative Value will never be less than zero. If the Intraday Indicative Value is equal to or less than zero at any time or the Closing Indicative Value is equal to zero on any Trading Day, the Closing Indicative Value of the ETNs on that day, and all future days, will be zero. The Closing Indicative Value is not the same as the closing price or any other trading price of the ETNs in the secondary market. The trading price of the ETNs at any time may vary significantly from their Indicative Value at such time. If the ETNs undergo a subsequent split or reverse split, the Closing Indicative Value (including the Current Principal Amount) of the ETNs will be adjusted accordingly. Such adjustment may adversely affect the trading price and liquidity of the ETNs. Even if the Closing Indicative Value or Intraday Indicative Value is equal to or less than zero at any time, the trading price of the ETNs may remain above zero. Buying the ETNs at such a time will lead to a complete loss of a holder’s investment.

The ETNs underwent a 1-for-20 reverse split, effective September 27, 2022. Since September 27, 2022, the Closing Indicative Value has been expressed in an amount per denomination and stated principal amount of \$500.00 based on the split-adjusted Current Principal Amount.

The “**Current Principal Amount**” on each calendar day following the Inception Date will be equal to (1)(a) the Current Principal Amount on the immediately preceding calendar day times (b) the Daily Index Factor on such calendar day minus (2) the Daily Investor Fee on such calendar day. The Current Principal Amount on the Inception Date was \$25.00.

The ETNs underwent a 1-for-20 reverse split, effective September 27, 2022. For the purposes of determining the Current Principal Amount on September 27, 2022, the Current Principal Amount on September 26, 2022, multiplied by 20 and rounded to 8 decimal places, shall be used in the formula above.

A “**Business Day**” is a Monday, Tuesday, Wednesday, Thursday or Friday that is not a day on which banking institutions in New York City or London, England generally are authorized or obligated by law, regulation or executive order to close.

A “**Trading Day**” is a day which is (i) an Index Business Day, (ii) an ETN Business Day and (iii) an Index Component Business Day for each of the Index Components.

An “**Index Business Day**” is a day on which the level of the Index is calculated and published.

With respect to any Index Component, an “**Index Component Business Day**” is a day on which trading is generally conducted on any markets on which such Index Component is traded.

An “**ETN Business Day**” is a day on which trading is generally conducted on the New York Stock Exchange, NYSE Arca and NASDAQ.

The “**Daily Index Factor**” on any Index Business Day will equal (a) the Closing Level of the Index on such Index Business Day divided by (b) the Closing Level of the Index on the immediately preceding Index Business Day. The Daily Index Factor is deemed to be one on any day that is not an Index Business Day.

On any calendar day, the “**Daily Investor Fee**” will be equal to the product of (1)(a) the Current Principal Amount on the immediately preceding calendar day times (b) the Daily Index Factor on such calendar day times (2)(a) the Investor Fee Rate divided by (b) 365. The “Investor Fee Rate” will be equal to 0.85%.

The ETNs underwent a 1-for-20 reverse split, effective September 27, 2022. For the purposes of determining the Daily Investor Fee on September 27, 2022, the Current Principal Amount on September 26, 2022, multiplied by 20 and rounded to 8 decimal places, shall be used in the formula above.

The ETNs do not guarantee any return of a holder’s investment. If the level of the Index decreases or does not increase sufficiently to offset the Daily Investor Fee (and in the case of early redemption, the Early Redemption Charge) over the term of the ETNs, a holder will receive less, and possibly significantly less at maturity or upon early redemption or acceleration of the ETNs than the amount of such holder’s investment.

The “**Closing Level**” of the Index on any Trading Day will be the Closing Level published on Bloomberg under the ticker symbol “QUSOI <Index>” or any successor page on Bloomberg or any successor service, applicable; provided that in the event a Market Disruption Event exists on a Valuation Date (as defined below), the Calculation Agent will determine the Closing Level of the Index, if necessary.

Payment Upon Early Redemption

Prior to maturity, a holder may, subject to certain restrictions described below, offer at least the applicable Minimum Redemption Amount or more of its ETNs to us for redemption on an Early Redemption Date during the term of the ETNs until April 14, 2037 (or, if the maturity of the ETNs is extended, five (5) scheduled Trading Days prior to the scheduled Final Valuation Date, as extended). Notwithstanding the foregoing, we will not accept a Redemption Notice submitted to us on any day after the Trading Day preceding the start of the Accelerated Valuation Period related to the acceleration of all outstanding ETNs. If a holder elects to offer its ETNs for redemption, and the requirements for acceptance by us are met, such holder will be entitled to receive a cash payment per ETN on the Early Redemption Date equal to the Early Redemption Amount. Any payment holders will be entitled to receive on the ETNs is subject to our ability to pay our obligations as they become due.

A holder may exercise its early redemption right by causing its broker or other person with whom such holder holds its ETNs to deliver a Redemption Notice (as defined herein) to Credit Suisse. If such Redemption Notice is delivered prior to 4:00 p.m., New York City time, on any Business Day, the immediately following Trading Day will be the applicable “**Early Redemption Valuation Date**”. Otherwise, the second following Trading Day will be the applicable Early Redemption Valuation Date. See “Procedures for Early Redemption”.

A holder must offer for redemption at least 10,000 ETNs at one time in order to exercise the right to cause us to redeem such holder’s ETNs on any Early Redemption Date (the “**Minimum Redemption Amount**”); provided that we or CSi as the Calculation Agent may from time to time reduce, in part or in whole, the Minimum Redemption Amount. Any such reduction will be applied on a consistent basis for all holders of the ETNs at the time the reduction becomes effective. If the ETNs undergo a subsequent split or reverse split, the minimum number of ETNs needed to exercise the right to cause us to redeem the ETNs will remain the same.

When a holder submits its ETNs for redemption in accordance with the redemption procedures described below under “Procedures for Early Redemption,” such ETNs may remain outstanding (and be resold by us or an affiliate) or may be submitted by us for cancellation.

The “**Early Redemption Date**” is the third Business Day following an Early Redemption Valuation Date.

The “**Early Redemption Charge**” per ETN will equal 0.125% times the Closing Indicative Value on the Early Redemption Valuation Date.

The “**Early Redemption Amount**” is a cash payment per ETN equal to the greater of (A) zero and (B)(1) the Closing Indicative Value on the applicable Early Redemption Valuation Date minus (2) the Early Redemption Charge, calculated by the Calculation Agent.

Procedures for Early Redemption

If a holder wishes to offer its ETNs to Credit Suisse for redemption, its broker or other person with whom such holder holds its ETNs must follow the following procedures:

- Deliver a notice of redemption (the “**Redemption Notice**”), to Credit Suisse via email or other electronic delivery as requested by Credit Suisse. If such Redemption Notice is delivered prior to 4:00 p.m., New York City time, on any Business Day, the immediately following Trading Day will be the applicable “**Early Redemption Valuation Date**”. Otherwise, the second following Trading Day will be the applicable Early Redemption Valuation Date. If Credit Suisse receives such Redemption Notice no later than 4:00 p.m., New York City time, on any Business Day, Credit Suisse will respond by sending the relevant holder’s broker an acknowledgment of the Redemption Notice accepting such redemption request by 7:30 p.m., New York City time, on the Business Day prior to the applicable Early Redemption Valuation Date. Credit Suisse or its affiliate must acknowledge to such holder’s broker acceptance of the Redemption Notice in order for the holder’s redemption request to be effective;
- Notwithstanding the foregoing, Credit Suisse may, at its option, waive the requirement that the Redemption Notice be delivered as set forth above, if confirmed by Credit Suisse that a written indication of an offer for early redemption has otherwise been accepted by Credit Suisse. Any such written indication that is delivered after 4:00 p.m., New York City time, on any Business Day, will be deemed to have been made on the following Business Day. For the avoidance of doubt, a holder may choose to comply with the procedures set forth above in lieu of the procedures in this clause, irrespective of any waiver by Credit Suisse.
- Cause the holder’s DTC custodian to book a delivery versus payment trade with respect to the ETNs on the applicable Early Redemption Valuation Date at a price equal to the applicable Early Redemption Amount, facing us; and
- Cause the holder’s DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m. New York City time, on the applicable Early Redemption Date (the third Business Day following the Early Redemption Valuation Date).

The holder is responsible for (i) instructing or otherwise causing its broker to provide the Redemption Notice and (ii) its broker satisfying the additional requirements as set forth in the second and third bullets above in order for the redemption to be effected. Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, a holder should consult the brokerage firm through which it owns its interest in the ETNs in respect of such deadlines. If Credit Suisse does not (i) receive the Redemption Notice from the holder’s broker by 4:00 p.m. and (ii) deliver an acknowledgment of such Redemption Notice to such broker accepting such redemption request by 7:30 p.m., on the Business Day prior to the applicable Early Redemption Valuation Date, such notice will not be effective for such Business Day and Credit Suisse will treat such Redemption Notice as if it was received on the next Business Day. Any redemption instructions for which Credit Suisse receives a valid confirmation in accordance with the procedures described above will be irrevocable after Credit Suisse confirms a holder’s offer for early redemption.

Because the Early Redemption Amount a holder will receive for each ETN will not be determined until the close of trading on the applicable Early Redemption Valuation Date, a holder will not know the applicable Early Redemption Amount at the time such holder exercises its redemption right and will bear the risk that its ETNs will decline in value between the time of such holder’s exercise and the time at which the Early Redemption Amount is determined.

Optional Acceleration

On any Business Day on or after May 9, 2017, we have the right to accelerate all, but not less than all, of the issued and outstanding ETNs (an “**Optional Acceleration**”). Upon an Optional Acceleration, holders will be entitled to receive a cash payment per ETN in an amount (the “**Accelerated Redemption Amount**”) equal to the arithmetic average, as determined by the Calculation Agent, of the Closing Indicative Values of such ETNs during the Accelerated Valuation Period.

The “**Accelerated Valuation Period**” shall be a period of five (5) consecutive Trading Days specified in our notice of Optional Acceleration, the first Trading Day of which shall be at least two (2) Business Days after the date on which we give notice of such Optional Acceleration. The Accelerated Redemption Amount will be payable on the third Business Day following the last Trading Day in the Accelerated Valuation Period (such payment date the “**Acceleration Date**”). We will give notice of any Optional Acceleration of the ETNs through customary channels used to deliver notices to holders of exchange traded notes. Any payment holders will be entitled to receive on the ETNs is subject to our ability to pay our obligations as they become due.

Market Disruption Events

The Calculation Agent will be solely responsible for the determination and calculation of any adjustments to any Index Component and of any related determinations and calculations with respect to any event described below and its determinations and calculations will be conclusive absent manifest error.

A “**Market Disruption Event**” is:

- (a) the occurrence or existence of a suspension, absence or material limitation of trading of the Index Components on the relevant exchange for such Index Component for more than two hours of trading or during the one-half hour period preceding the close of the principal trading session on such relevant exchange;

- (b) a breakdown or failure in the price and trade reporting systems of the relevant exchange for any Index Component, as a result of which the reported trading prices for the Index Component during the last one-half hour preceding the close of the principal trading session on such relevant exchange are materially inaccurate;
- (c) the occurrence or existence of a suspension, absence or material limitation of trading on the primary related exchange or market for trading in futures or options contracts related to any Index Component for more than two hours of trading during, or during the one-half hour period preceding the close of the principal trading session for such related exchange or market;
- (d) a decision to permanently discontinue trading in those related futures or options contracts; or
- (e) failure of the Index Calculation Agent to publish the level of the Index, including as a result of any disruption of the Index Components;

in each case, as determined by the Calculation Agent in its sole discretion; and in each case a determination by the Calculation Agent in its sole discretion that any event described above materially interfered with our ability or the ability of any of our affiliates to effect transactions in the Index Component or any instrument related to the Index Component or to adjust or unwind all or a material portion of any hedge position in the Index Component with respect to the ETNs.

For the purpose of determining whether a market disruption event in respect of an Index Component has occurred:

- (a) a limitation on the hours or number of days of trading will not constitute a market disruption event if it results from an announced change in the regular business hours of the relevant exchange for such Index Component or the primary related exchange or market for trading in futures or options contracts related to such Index Component;
- (b) limitations pursuant to NYSE Rule 80B (or any applicable rule or regulation enacted or promulgated by the NYSE, any other U.S. self-regulatory organization, the SEC or any other relevant authority of scope similar to NYSE Rule 80B) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading; and
- (c) a suspension of trading in futures or options contracts related to such Index Component by the primary related exchange or market for trading in such contracts, if available, by reason of:
 - (i) a price change exceeding limits set by such exchange or market;
 - (ii) an imbalance of orders relating to such contracts; or
 - (iii) a disparity in bid and ask quotes relating to such contracts;

will, in each such case, constitute a suspension, absence or material limitation of trading in futures or options contracts related to such Index Component; and

- (d) a “suspension, absence or material limitation of trading” on the primary related exchange or market on which futures or options contracts related to such Index Component are traded will not include any time when such exchange or market is itself closed for trading under ordinary circumstances;

in each case, as determined by the Calculation Agent in its sole discretion.

If the Calculation Agent determines that a Market Disruption Event occurs or is continuing on any Valuation Date, that Valuation Date will be postponed until the first Trading Day on which no Market Disruption Event occurs or is continuing, unless a Market Disruption Event occurs or is continuing for each of the five (5) Trading Days following the applicable scheduled Valuation Date. In that case, the fifth Trading Day following the applicable scheduled Valuation Date shall be deemed to be the applicable Valuation Date, notwithstanding the fact that a Market Disruption Event occurred or was continuing on such Trading Day, and the Calculation Agent will determine the applicable Closing Indicative Value using an appropriate Closing Level of the Index on that deemed Valuation Date taking into account the nature and duration of such Market Disruption Event. If any Valuation Date in the Accelerated Valuation Period or Final Valuation Period is postponed as described above, each subsequent Valuation Date in the Accelerated Valuation Period or Final Valuation Period will be postponed by the same number of Trading Days. In addition, if the Final Valuation Date, the Early Redemption Valuation Date or the last scheduled Valuation Date in the Accelerated Valuation Period is postponed, the Maturity Date, the corresponding Early Redemption Date or the Acceleration Date, as the case may be, will be postponed until the date three (3) Business Days following such Valuation Date, as postponed.

“**Valuation Date**” is any Trading Day in the Final Valuation Period or the Accelerated Valuation Period and any Early Redemption Valuation Date, as applicable.

Default Amount on Acceleration

For the purpose of determining whether the holders of our senior medium-term notes, of which the ETNs are a part, are entitled to take any action under the indenture, we will treat the stated principal amount of each ETN outstanding as the stated principal amount of that ETN. Although the terms of the ETNs may differ from those of the other senior medium-term notes, holders of specified percentages in stated principal amount of all senior medium-term notes, together in some cases with other series of our debt

securities, will be able to take action affecting all the senior medium-term notes, including the ETNs. This action may involve changing some of the terms that apply to the senior medium-term notes, accelerating the maturity of the senior medium-term notes after a default or waiving some of our obligations under the indenture.

In case an event of default with respect to ETNs shall have occurred and be continuing, the amount declared due and payable upon any acceleration of the ETNs will be determined by the Calculation Agent, and will equal, for each ETN that a holder then holds, the Closing Indicative Value determined by the Calculation Agent occurring on the Trading Day following the date on which the ETNs were declared due and payable.

Further Issuances

We may, from time to time, without notice to or the consent of the holders of the ETNs, create and issue additional securities having the same terms and conditions as the ETNs, and ranking on an equal basis with the ETNs in all respects.

Discontinuation or Modification of the Index

If the Index Sponsors discontinue publication of the Index and the Index Sponsors or anyone else publishes a substitute index that the Calculation Agent determines is comparable to the Index, then the Calculation Agent will permanently replace the original Index with that substitute index (the “**Successor Index**”) for all purposes, and all provisions described herein as applying to the Index will thereafter apply to the Successor Index instead. If the Calculation Agent replaces the original Index with a Successor Index, then the Calculation Agent will determine the Early Redemption Amount, Accelerated Redemption Amount or Maturity Redemption Amount (each, a “**Redemption Amount**”) and the Coupon Amount, as applicable, by reference to the Successor Index.

If the Calculation Agent determines that the publication of the Index is discontinued and there is no successor index, the Calculation Agent will determine the level of the Index, and thus the applicable Redemption Amount, by a computation methodology that the Calculation Agent determines will as closely as reasonably possible replicate the Index.

If the Calculation Agent determines that the Index, the Options or the method of calculating the Index is changed at any time in any respect, including whether the change is made by the Index Sponsors under their existing policies or following a modification of those policies, is due to the publication of a successor index, is due to events affecting the Reference Oil Shares or the Options, or is due to any other reason and is not otherwise reflected in the level of the Index by the Index Sponsors pursuant to the Index methodology, then the Calculation Agent will be permitted (but not required) to make such adjustments in the Index or the method of its calculation as it believes are appropriate to ensure that the Closing Level of the Index used to determine the applicable Redemption Amount is equitable.

Manner of Payment and Delivery

Any payment on or delivery of the ETNs at maturity will be made to accounts designated by holders and approved by us, or at the office of the trustee in New York City, but only when the ETNs are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

Role of the Calculation Agent

Credit Suisse International (“**CSI**”), an affiliate of ours and the Calculation Agent, will, in its reasonable discretion, make certain calculations and determinations that may impact the Closing Indicative Value of the ETNs, including determination of the arithmetic average of the Closing Indicative Values where applicable, a split or reverse split of the ETNs, calculation of default amounts, Market Disruption Events, any Successor Index, Business Days and Trading Days, the Current Principal Amount, the Daily Investor Fee amount, the Daily Index Factor, the Coupon Amount, the Closing Level of the Index on any Trading Day, the Maturity Date, any Early Redemption Dates, the Acceleration Date, the amount payable in respect of a holder’s ETNs at maturity or upon early redemption or acceleration and any other calculations or determinations to be made by the Calculation Agent as specified herein.

If the Calculation Agent ceases to perform its role, we will either, at our sole discretion, perform such role, appoint another party to do so or accelerate the ETNs.

We may appoint a different Calculation Agent from time to time without consent and without notifying holders.

Role of the Index Calculation Agent

We have appointed Nasdaq, Inc. as an Index Calculation Agent. The Index Calculation Agent will have the sole responsibility to calculate and disseminate the Closing Indicative Value and the Intraday Indicative Value of the ETNs. The Index Sponsors may appoint a different Index Calculation Agent from time to time without consent and without notifying holders.

General Terms of the ETNs

Business Days

The term “**Business Day**” means, unless otherwise specified in the applicable prospectus supplement, any day that is not a Saturday or Sunday and that is not a day on which banking institutions are generally authorized or obligated by law, regulation or executive order to close in The City of New York and any other place of payment with respect to the applicable series of ETNs and is a day on which dealings in deposits in any currency specified in the applicable prospectus supplement are transacted, or with respect to any future date are expected to be transacted, in the London interbank market.

Events of Default; Limitations on Suits

Events of Default

Unless otherwise specified in a prospectus supplement, an “**event of default**” with respect to a series of ETNs occurs upon:

- a default in payment of the principal or any premium on any ETN of that series when due;
- a default in payment of interest when due on any ETN of that series for 30 days;
- a default in performing any other covenant in the Indenture for 60 days after written notice from the Trustee or from the holders of 25% in principal amount of the outstanding ETNs of such series; or
- certain events of bankruptcy, insolvency or reorganization of the Issuer.

Any additional or different events of default applicable to a particular series of ETNs will be described in the prospectus supplement relating to such series.

The Trustee may withhold notice to the holders of ETNs of any default (except in the payment of principal, premium or interest) if it considers such withholding of notice to be in the best interests of the holders. A default is any event which is an event of default described above or would be an event of default but for the giving of notice or the passage of time.

Unless otherwise specified in the applicable prospectus supplement, if an event of default occurs and continues, the Trustee or the holders of the aggregate principal amount of the ETNs specified below may require the Issuer to repay immediately, or accelerate:

- the entire principal of the ETNs of such series; or
- if the ETNs are original issue discount securities, such portion of the principal as may be described in the applicable prospectus supplement.

Unless otherwise specified in the applicable prospectus supplement, if the event of default occurs because of a default in a payment of principal or interest on the ETNs, then the Trustee or the holders of at least 25% of the aggregate principal amount of ETNs of that series can accelerate that series of ETNs. If the event of default occurs because of a failure to perform any other covenant in the Indenture for the benefit of one or more series of ETNs, then the Trustee or the holders of at least 25% of the aggregate principal amount of ETNs of all series affected, voting as one class, can accelerate all of the affected series of ETNs. If the event of default occurs because of bankruptcy proceedings, then all of the ETNs under the Indenture will be accelerated automatically. Therefore, except in the case of a default on a payment of principal or interest on the ETNs of your series or a default due to bankruptcy or insolvency of the Issuer, it is possible that you may not be able to accelerate the ETNs of your series because of the failure of holders of other series to take action.

The holders of a majority of the aggregate principal amount of the ETNs of all affected series, voting as one class, can rescind this accelerated payment requirement or waive any past default or event of default or allow noncompliance with any provision of the Indenture. However, they cannot waive a default in payment of principal of, premium, if any, or interest on, any of the ETNs.

After an event of default, the Trustee must exercise the same degree of care a prudent person would exercise under the circumstances in the conduct of her or his own affairs. Subject to these requirements, the Trustee is not obligated to exercise any of its rights or

powers under the Indenture at the request, order or direction of any holders, unless the holders offer the Trustee reasonable indemnity. If they provide this reasonable indemnity, the holders of a majority in principal amount of all affected series of ETNs, voting as one class, may direct the time, method and place of conducting any proceeding or any remedy available to the Trustee, or exercising any power conferred upon the Trustee, for any series of ETNs.

We are required to furnish to the Trustee annually a brief certificate as to our compliance with all conditions and covenants under the Indenture.

Limitations on Suits

The holders of any ETNs may not institute any proceeding, judicial or otherwise, with respect to the Indenture or such ETNs, or for the appointment of a receiver or trustee, or for any other remedy, unless:

- (a) such holder has previously given to the Trustee written notice of a continuing event of default with respect to such ETNs;
- (b) the holders of at least 25% in aggregate principal amount of such ETNs outstanding and affected will have made written request to the Trustee to institute proceedings with respect to such event of default in its own name as Trustee;
- (c) such holder or holders have offered to the Trustee indemnity reasonably satisfactory to the Trustee against any costs, liabilities or expenses to be incurred in compliance with such request;
- (d) the Trustee for 60 days after its receipt of such offer of indemnity has failed to institute any such proceeding;
- (e) during such 60-day period, the holders of a majority in aggregate principal amount of such ETNs outstanding and affected have not given the Trustee a direction that is inconsistent with such written request.

Consolidation, Merger or Sale

The Issuer has agreed in the Indenture not to consolidate with or merge with or into any other person or convey or transfer all or substantially all of its properties and assets to any person unless:

- it is the continuing person; or
- the successor expressly assumes by supplemental indenture its obligations under the Indenture.

In either case, the Issuer will also have to deliver a certificate to the Trustee stating that after giving effect to the merger there will not be any defaults under the Indenture and, if the Issuer is not the continuing person, an opinion of counsel stating that the merger and the supplemental indentures comply with these provisions and that the supplemental indentures are legal, valid and binding obligations of the successor corporation enforceable against it.

Credit Suisse or Credit Suisse Group may issue ETNs directly or through one or more branches and Credit Suisse may, at any time, transfer its obligations under the ETNs from the head office to any branch of Credit Suisse or from any branch of Credit Suisse to another branch or to its head office.

Modification of the Indenture

In general, rights and obligations of the Issuer and the holders under the Indenture may be modified if the holders of a majority in aggregate principal amount of the outstanding ETNs of each series affected by the modification consent to such modification. However, the Indenture provides that, unless each affected holder agrees, an amendment cannot:

- make any adverse change to any payment term of an ETN such as extending the maturity date, extending the date on which the Issuer has to pay interest or make a sinking fund payment, reducing the interest rate, reducing the amount of principal the Issuer has to repay, reducing the amount of principal of an ETN issued with original issue discount that would be due and payable upon an acceleration of the maturity thereof or the amount thereof provable in bankruptcy, insolvency or similar proceeding, changing the currency or place in which the Issuer has to make any payment of principal, premium or interest, modifying any redemption or repurchase right to the detriment of the holder, modifying any right to convert or exchange the ETNs for another security to the detriment of the holder, and impairing any right of a holder to bring suit for payment;
- reduce the percentage of the aggregate principal amount of ETNs needed to make any amendment to the Indenture or to waive any covenant or default;
- waive any payment default; or
- make any change to the amendment provisions of the Indenture.

However, other than in the circumstances mentioned above, if the Issuer and the Trustee agree, the Indenture may be amended without notifying any holders or seeking their consent if the amendment does not materially and adversely affect any holder.

In particular, if the Issuer and the Trustee agree, the Indenture may be amended without notifying any holders or seeking their consent to add a guarantee from a third party on the outstanding and future ETNs to be issued under the Indenture.

Governing Law

Unless specified otherwise, the ETNs and Indenture will be governed by and construed in accordance with the laws of the State of New York.

Material U.S. Federal Income Tax Considerations

Our ETNs should be treated for U.S. federal income tax purposes as prepaid forward contracts or prepaid financial contracts that are not debt instruments. Under this treatment, no original issue discount (“**OID**”) will be accrued on our ETNs. However, the Internal Revenue Service might assert that any of our ETNs should be treated as debt instruments subject to the special tax rules governing contingent payment debt instruments. In that event, U.S. holders of the ETNs would be required to accrue OID over the term of the ETNs based upon the yield at which we would issue a non-contingent fixed-rate debt instrument with other terms and conditions similar to the applicable ETNs.

Exhibit 12.1

I, Ulrich Körner, certify that:

1. I have reviewed this annual report on Form 20-F of Credit Suisse Group AG and Credit Suisse AG;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrants as of, and for, the periods presented in this report;
4. The registrants' other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrants and we have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrants, including their consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrants' disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrants' internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is likely to materially affect, the registrants' internal control over financial reporting; and
5. The registrants' other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrants' auditors and the audit committee of each of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrants' ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrants' internal control over financial reporting.

Dated: March 14, 2023

/s/ Ulrich Körner
Name: Ulrich Körner

Title: Chief Executive Officer of Credit Suisse Group AG and Credit Suisse AG

Exhibit 12.2

I, Dixit Joshi, certify that:

1. I have reviewed this annual report on Form 20-F of Credit Suisse Group AG and Credit Suisse AG;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrants as of, and for, the periods presented in this report;
4. The registrants' other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrants and we have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrants, including their consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrants' disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrants' internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is likely to materially affect, the registrants' internal control over financial reporting; and
5. The registrants' other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrants' auditors and the audit committee of each of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrants' ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrants' internal control over financial reporting.

Dated: March 14, 2023

/s/ Dixit Joshi
Name: Dixit Joshi

Title: Chief Financial Officer of Credit Suisse Group AG and Credit Suisse AG

Exhibit 13.1

Annual Certification

Pursuant to Section 906 of the Sarbanes – Oxley Act of 2002

Pursuant to subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code, each of the undersigned officers of Credit Suisse Group AG and Credit Suisse AG, incorporated in Switzerland (the “Companies”), does hereby certify, to such officer’s knowledge, that:

The Annual Report on Form 20-F for the year ended December 31, 2022 of the Companies fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and the information contained in this Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Companies for such period presented.

Dated: March 14, 2023

/s/ Ulrich Körner

Name: Ulrich Körner

Title: Chief Executive Officer of Credit Suisse Group AG and Credit Suisse AG

Dated: March 14, 2023

/s/ Dixit Joshi

Name: Dixit Joshi

Title: Chief Financial Officer of Credit Suisse Group AG and Credit Suisse AG



March 14, 2023

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form F-3 (No. 333-238458) of Credit Suisse Group AG and Credit Suisse AG and in the Registration Statements on Form S-8 (No. 333-101259, 333-208152, 333-217856 and 333-268336) of Credit Suisse Group AG of our report dated March 14, 2023 relating to the financial statements of Credit Suisse Group AG and its subsidiaries (the "Group") and the Group's effectiveness of internal control over financial reporting, which appears in this Form 20-F.

/s/ PricewaterhouseCoopers AG

PricewaterhouseCoopers AG, Birchstrasse 160, Postfach, CH-8050 Zurich, Switzerland
T: +41 58 792 44 00, www.pwc.ch

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March 14, 2023

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form F-3 (No. 333-238458) of Credit Suisse Group AG and Credit Suisse AG of our report dated March 14, 2023 relating to the financial statements of Credit Suisse AG and its subsidiaries (the "Bank") and the Bank's effectiveness of internal control over financial reporting, which appears in this Form 20-F.

/s/ PricewaterhouseCoopers AG

PricewaterhouseCoopers AG, Birchstrasse 160, Postfach, CH-8050 Zurich, Switzerland
T: +41 58 792 44 00, www.pwc.ch

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ANNEX D: CREDIT SUISSE'S REPORTS OF FOREIGN PRIVATE ISSUER ON FORM 6-K

D-1

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

Form 6-K

**REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934**

April 4, 2023

Commission File Number 001-15244

CREDIT SUISSE GROUP AG

(Translation of registrant's name into English)

Paradeplatz 8, 8001 Zurich, Switzerland
(Address of principal executive office)

Commission File Number 001-33434

CREDIT SUISSE AG

(Translation of registrant's name into English)

Paradeplatz 8, 8001 Zurich, Switzerland
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F

Form 40-F

This report on Form 6-K is being filed by Credit Suisse Group AG and Credit Suisse AG and is hereby incorporated by reference into the Registration Statement on Form F-3 (file no. 333-238458) and the Registration Statements on Form S-8 (file nos. 333-101259, 333-208152, 333-217856 and 333-268336). Information contained on our website or referenced in this report via website links is not incorporated by reference into this report.

Credit Suisse Group AG publishes results of the 2023 Annual General Meeting

Zurich, April 4, 2023 – **The shareholders of Credit Suisse Group AG (Credit Suisse) today voted on the proposals of the Board of Directors (Board) at the Annual General Meeting of Shareholders (AGM) in Zurich. Axel P. Lehmann was re-elected as Chairman of the Board for a further term until the closing of the planned merger with UBS Group AG (UBS). Five members of the Board did not stand for re-election. All other Board members were re-elected for a further term until the closing of the planned merger with UBS.**

Election of the members of the Board and the Compensation Committee

With a majority of 55.67% of the votes represented, shareholders re-elected Axel P. Lehmann as Chairman of the Board for a further term until the closing of the planned merger with UBS. Following his re-election to the Board, Christian Gellerstad was appointed as Vice-Chair and Lead Independent Director.

The following Board members did not stand for re-election at the 2023 AGM:

- Shan Li
- Seraina Macia
- Blythe Masters
- Richard Meddings
- Ana Paula Pessoa

Iris Bohnet, Christian Gellerstad and Amanda Norton were re-elected as members of the Compensation Committee.

The composition of the Board can be found at: <https://www.credit-suisse.com/about-us/en/our-company/our-management/board-of-directors.html>.

Further voting results

- Shareholders approved the 2022 management report, the 2022 parent company financial statements and the 2022 Credit Suisse consolidated financial statements by 61.41% of the shareholder votes represented.
- Shareholders approved the proposal on appropriation of retained earnings by 79.81% of the shareholder votes represented.
- Shareholders approved the proposed maximum aggregate compensation of the Board for the period of one term by 50.42% of the shareholder votes represented. The compensation amount will be pro-rated from the date of the AGM 2023 until the date of the closing of the planned merger with UBS.
- Shareholders rejected the proposed maximum aggregate compensation of the Executive Board for the period of one term by 48.43% of the shareholder votes represented. The Board will assess this result and will determine potential further measures.
- Shareholders accepted the 2022 Compensation Report in a consultative vote, with 50.06% of the shareholder votes represented.
- Shareholders accepted Credit Suisse's climate strategy as outlined in the Strategy chapter of the 2022 Task Force on Climate-related Financial Disclosures Report in a consultative vote, with 53.07% of the shareholder votes represented.
- Some of the proposed amendments to the Articles of Association were not adopted due to a lack of the required quorum.

The detailed voting results of the 2023 AGM as well as the speeches of Axel P. Lehmann, Chairman of the Board, and Ulrich Körner, Chief Executive Officer, are available online at: www.credit-suisse.com/agm.

Contact details**Kinner Lakhani**, Investor Relations, Credit Suisse

Tel: +41 44 333 71 49

Email: investor.relations@credit-suisse.com**Dominik von Arx**, Corporate Communications, Credit Suisse

Tel: +41 844 33 88 44

Email: media.relations@credit-suisse.com**Credit Suisse**

Credit Suisse is one of the world's leading financial services providers. The bank's strategy is built on its leading Wealth Management and Swiss Bank franchises, with strong Asset Management as well as Markets capabilities. Credit Suisse seeks to follow a balanced approach to wealth management, aiming to capitalize on both the large pool of wealth within mature markets as well as the significant growth in wealth in Asia Pacific and other emerging markets, while also serving key developed markets with an emphasis on Switzerland. The bank employs more than 50,000 people. The registered shares (CSGN) of Credit Suisse Group AG are listed in Switzerland and, in the form of American Depositary Shares (CS), in New York. Further information about Credit Suisse can be found www.credit-suisse.com.

Cautionary statement regarding forward-looking information

This document contains statements that constitute forward-looking statements. In addition, in the future we, and others on our behalf, may make statements that constitute forward-looking statements. Such forward-looking statements may include, without limitation, statements relating to the following:

- our statements as to the proposed transaction between Credit Suisse and UBS;
- our plans, targets or goals;
- our future economic performance or prospects;
- the potential effect on our future performance of certain contingencies; and
- assumptions underlying any such statements.

Words such as "may," "could," "achieves," "believes," "anticipates," "expects," "intends" and "plans" and similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying such statements. We do not intend to update these forward-looking statements.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that predictions, forecasts, projections and other outcomes described or implied in forward-looking statements will not be achieved. We caution you that a number of important factors could cause results to differ materially from the plans, targets, goals, expectations, estimates and intentions expressed in such forward-looking statements. Additionally, many of these factors are beyond our control.

These factors include, but are not limited to:

- the consummation of the proposed transaction between Credit Suisse and UBS, and the timing and implementation thereof;
- the ability to maintain sufficient liquidity and access capital markets;
- market volatility, increases in inflation and interest rate fluctuations or developments affecting interest rate levels;
- the ongoing significant negative consequences, including reputational harm, of the Archegos and supply chain finance funds matters, as well as other recent events, and our ability to successfully resolve these matters;
- the impact of media reports and social media speculation about our business and its performance;
- the extent of outflows of deposits and assets or future net new asset generation across our divisions;
- our ability to improve our risk management procedures and policies and hedging strategies;
- the strength of the global economy in general and the strength of the economies of the countries in which we conduct our operations, in particular, but not limited to, the risk of negative impacts of COVID-19 on the global economy and financial markets, Russia's invasion of Ukraine, the resulting sanctions from the US, EU, UK, Switzerland and other countries and the risk of continued slow economic recovery or downturn in the EU, the US or other developed countries or in emerging markets in 2023 and beyond;
- the emergence of widespread health emergencies, infectious diseases or pandemics, such as COVID-19, and the actions that may be taken by governmental authorities to contain the outbreak or to counter its impact;
- potential risks and uncertainties relating to the severity of impacts from the COVID-19 pandemic, including potential material adverse effects on our business, financial condition and results of operations;
- the direct and indirect impacts of deterioration or slow recovery in residential and commercial real estate markets;
- adverse rating actions by credit rating agencies in respect of us, sovereign issuers, structured credit products or other credit-related exposures;

- the ability to achieve our strategic initiatives, including those related to our targets, ambitions and goals, such as our financial ambitions as well as various goals and commitments to incorporate certain environmental, social and governance considerations into our business strategy, products, services and risk management processes;

- our ability to achieve our announced comprehensive new strategic direction for the Group and significant changes to its structure and organization;
- our ability to successfully implement the divestment of any non-core business;
- the future level of any impairments and write-downs resulting from strategy changes and their implementation;
- the ability of counterparties to meet their obligations to us and the adequacy of our allowance for credit losses;
- the effects of, and changes in, fiscal, monetary, exchange rate, trade and tax policies;
- the effects of currency fluctuations, including the related impact on our business, financial condition and results of operations due to moves in foreign exchange rates;
- geopolitical and diplomatic tensions, instabilities and conflicts, including war, civil unrest, terrorist activity, sanctions or other geopolitical events or escalations of hostilities, such as Russia's invasion of Ukraine;
- political, social and environmental developments, including climate change and evolving ESG-related disclosure standards;
- the ability to appropriately address social, environmental and sustainability concerns that may arise from our business activities;
- the effects of, and the uncertainty arising from, the UK's withdrawal from the EU;
- the possibility of foreign exchange controls, expropriation, nationalization or confiscation of assets in countries in which we conduct our operations;
- operational factors such as systems failure, human error, or the failure to implement procedures properly;
- the risk of cyber attacks, information or security breaches or technology failures on our reputation, business or operations, the risk of which is increased while large portions of our employees work remotely;
- the adverse resolution of litigation, regulatory proceedings and other contingencies;
- actions taken by regulators with respect to our business and practices and possible resulting changes to our business organization, practices and policies in countries in which we conduct our operations;
- the effects of changes in laws, regulations or accounting or tax standards, policies or practices in countries in which we conduct our operations;
- the discontinuation of LIBOR and other interbank offered rates and the transition to alternative reference rates;
- the potential effects of changes in our legal entity structure;
- competition or changes in our competitive position in geographic and business areas in which we conduct our operations;
- the ability to retain and recruit qualified personnel;
- the ability to protect our reputation and promote our brand;
- the ability to increase market share and control expenses;
- technological changes instituted by us, our counterparties or competitors;
- the timely development and acceptance of our new products and services and the perceived overall value of these products and services by users;
- acquisitions, including the ability to integrate acquired businesses successfully, and divestitures, including the ability to sell non-core assets; and
- other unforeseen or unexpected events and our success at managing these and the risks involved in the foregoing.

We caution you that the foregoing list of important factors is not exclusive. When evaluating forward-looking statements, you should carefully consider the foregoing factors and other uncertainties and events, including the information set forth in "Risk factors" in *Information on the company* in our Annual Report 2022.

Important Information

This announcement does not constitute an offer of securities for sale, or a solicitation of an offer to purchase or subscribe for, any securities in the United States and does not constitute an offer or invitation to subscribe for or purchase any securities in any country or in any other jurisdiction where to do so might constitute a violation of the local securities laws or regulations of such jurisdiction.

Investors and others should note that we announce important company information (including quarterly earnings releases and financial reports as well as our annual sustainability report) to the investing public using press releases, SEC and Swiss ad hoc filings, our website and public conference calls and webcasts. We also routinely use our Twitter account @creditsuisse (<https://twitter.com/creditsuisse>), our LinkedIn account (<https://www.linkedin.com/company/credit-suisse/>), our Instagram accounts (https://www.instagram.com/creditsuisse_careers/ and https://www.instagram.com/creditsuisse_ch/), our Facebook account (<https://www.facebook.com/creditsuisse/>) and other social media channels as additional means to disclose public information, including to excerpt key messages from our public disclosures. We may share or retweet such messages through certain of our regional accounts, including through Twitter at @csschweiz (<https://twitter.com/csschweiz>) and @csapac (<https://twitter.com/csapac>). Investors and others should take care to consider such abbreviated messages in the context of the disclosures from which they are excerpted. The information we post on these social media accounts is not a part of this document.

Disclaimer

This document was produced by and the opinions expressed are those of Credit Suisse as of the date of writing and are subject to change. It has been prepared solely for information purposes and for the use of the recipient. It does not constitute an offer or an invitation by or on behalf of Credit Suisse to any person to buy or sell any security. Any reference to past performance is not necessarily

a guide to the future. The information and analysis contained in this publication have been compiled or arrived at from sources believed to be reliable but Credit Suisse does not make any representation as to their accuracy or completeness and does not accept liability for any loss arising from the use hereof.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrants have duly caused this report to be signed on their behalf by the undersigned, thereunto duly authorized.

CREDIT SUISSE GROUP AG and CREDIT SUISSE AG
(Registrants)

By: /s/ Reto Hösli
Reto Hösli
Director

/s/ Annina Müller
Annina Müller
Vice President

Date: April 4, 2023

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

April 24, 2023

Commission File Number 001-15244

Credit Suisse Group AG

(Translation of registrant's name into English)

Paradeplatz 8, 8001 Zurich, Switzerland
(Address of principal executive office)

Commission File Number 001-33434

Credit Suisse AG

(Translation of registrant's name into English)

Paradeplatz 8, 8001 Zurich, Switzerland
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F Form 40-F

Explanatory note

On April 24, 2023, the Credit Suisse Earnings Release 1Q23 was published. A copy of the Earnings Release is attached as an exhibit to this report on Form 6-K. This report on Form 6-K (including the exhibit hereto) is hereby (i) incorporated by reference into the Registration Statement on Form F-3 (file no. 333-238458) and the Registration Statements on Form S-8 (file nos. 333-101259, 333-208152, 333-217856, and 333-268336), and (ii) shall be deemed to be “filed” for purposes of the Securities Exchange Act of 1934, as amended, except, in the case of both (i) and (ii), the information under “Group and Bank differences” and “Selected financial data – Bank” shall not be incorporated by reference into, or be deemed “filed”, with respect to the Registration Statements on Form S-8 (file nos. 333-101259, 333-208152, 333-217856 and 333-268336).

Credit Suisse Group AG and Credit Suisse AG file an annual report on Form 20-F and file quarterly reports, including unaudited interim financial information, and furnish or file other reports on Form 6-K with the US Securities and Exchange Commission (SEC) pursuant to the requirements of the Securities Exchange Act of 1934, as amended. The SEC reports of Credit Suisse Group AG and Credit Suisse AG are available to the public over the internet at the SEC’s website at www.sec.gov. The SEC reports of Credit Suisse Group AG and Credit Suisse AG are also available under “Investor Relations” on Credit Suisse Group AG’s website at www.credit-suisse.com and at the offices of the New York Stock Exchange, 20 Broad Street, New York, NY 10005.

Unless the context otherwise requires, references herein to “Credit Suisse Group,” “Credit Suisse,” “the Group,” “we,” “us” and “our” mean Credit Suisse Group AG and its consolidated subsidiaries and the term “the Bank” means Credit Suisse AG, the direct bank subsidiary of the Group, and its consolidated subsidiaries.

SEC regulations require certain information to be included in registration statements relating to securities offerings. Such additional information for the Group and the Bank is included in this report on Form 6-K, which should be read together with the Group’s and the Bank’s annual report on Form 20-F for the year ended December 31, 2022 (Credit Suisse 2022 20-F) filed with the SEC on March 14, 2023, and the Group’s earnings release for the first quarter of 2023 (Credit Suisse Earnings Release 1Q23), filed with the SEC as Exhibit 99.1 hereto.

This report filed on Form 6-K also contains certain information about Credit Suisse AG relating to its results as of and for the three months ended March 31, 2023. Credit Suisse AG, a Swiss bank and joint stock corporation established under Swiss law, is a wholly-owned subsidiary of the Group. Credit Suisse AG’s registered head office is in Zurich, and it has additional executive offices and principal branches in London, New York, Hong Kong, Singapore and Tokyo.

References herein to “CHF” are to Swiss francs.

Forward-looking statements

This Form 6-K and the information incorporated by reference in this Form 6-K include statements that constitute forward-looking statements. In addition, in the future the Group, the Bank and others on their behalf may make statements that constitute forward-looking statements.

When evaluating forward-looking statements, you should carefully consider the cautionary statement regarding forward-looking information, the risk factors and other information set forth in the Credit Suisse 2022 20-F, subsequent annual reports on Form 20-F filed by the Group and the Bank with the SEC, the Group’s and the Bank’s reports on Form 6-K furnished to or filed with the SEC, and other uncertainties and events.

Group and Bank differences

The business of the Bank is substantially the same as the business of the Group, and substantially all of the Bank's operations are conducted through the Wealth Management, Swiss Bank, Asset Management, Investment Bank and the Capital Release Unit segments. These segment results are included in Core Results, except for the Capital Release Unit, which is part of the Credit Suisse results. Core Results also includes certain Corporate Center activities of the Group, such as hedging activities relating to share-based compensation awards, which are not applicable to the Bank. Certain other assets, liabilities and results of operations, primarily relating to Credit Suisse Services AG (our Swiss service company) and its subsidiary, are managed as part of the activities of the Group's segments. However, they are legally owned by the Group and are not part of the Bank's consolidated financial statements.

Comparison of consolidated statements of operations

	Bank		Group	
in	1Q23	1Q22	1Q23	1Q22
Statements of operations (CHF million)				
Net revenues	17,630	4,443	18,467	4,412
Total operating expenses	5,735	5,056	5,620	4,950
Income/(loss) before taxes	11,813	(503)	12,764	(428)
Net income/(loss)	11,503	(330)	12,419	(277)
Net income/(loss) attributable to shareholders	11,517	(330)	12,432	(273)

Comparison of consolidated balance sheets

	Bank		Group	
end of	1Q23	4Q22	1Q23	4Q22
Balance sheet statistics (CHF million)				
Total assets	538,568	530,039	540,291	531,358
Total liabilities	482,036	481,563	486,038	486,027

Capitalization and indebtedness

	Bank		Group	
end of	1Q23	4Q22	1Q23	4Q22
Capitalization and indebtedness (CHF million)				
Due to banks	9,925	11,905	9,929	11,905
Customer deposits	167,209	234,554	165,968	233,235
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	6,461	20,371	6,371	20,280
Long-term debt	145,269	150,661	151,261	157,235
All other liabilities	153,172	64,072	152,509	63,372
Total liabilities	482,036	481,563	486,038	486,027
Total equity	56,532	48,476	54,253	45,331
Total capitalization and indebtedness	538,568	530,039	540,291	531,358

BIS capital metrics

end of	Bank		Group	
	1Q23	4Q22	1Q23	4Q22
Capital and risk-weighted assets (CHF million)				
CET1 capital	54,244	40,987	49,401	35,290
Tier 1 capital	54,244	54,843	49,401	50,026
Total eligible capital	54,244	54,843	49,401	50,026
Risk-weighted assets	242,531	249,536	243,431	250,540
Capital ratios (%)				
CET1 ratio	22.4	16.4	20.3	14.1
Tier 1 ratio	22.4	22.0	20.3	20.0
Total capital ratio	22.4	22.0	20.3	20.0

Selected financial data – Bank

Condensed consolidated statements of operations

in	1Q23	1Q22	% change
Condensed consolidated statements of operations (CHF million)			
Interest and dividend income	4,200	2,220	89
Interest expense	(3,216)	(755)	326
Net interest income	984	1,465	(33)
Commissions and fees	1,733	2,590	(33)
Trading revenues	(20)	(55)	(64)
Other revenues	14,933	443	–
Net revenues	17,630	4,443	297
Provision for credit losses			
	82	(110)	–
Compensation and benefits	2,140	2,158	(1)
General and administrative expenses	1,808	2,555	(29)
Commission expenses	207	298	(31)
Goodwill impairment	1,301	0	–
Restructuring expenses	279	45	–
Total other operating expenses	3,595	2,898	24
Total operating expenses	5,735	5,056	13
Income/(loss) before taxes	11,813	(503)	–
Income tax expense/(benefit)	310	(173)	–
Net income/(loss)	11,503	(330)	–
Net income/(loss) attributable to noncontrolling interests	(14)	0	–
Net income/(loss) attributable to shareholders	11,517	(330)	–

Selected financial data – Bank (continued)

Condensed consolidated balance sheets			
end of	1Q23	4Q22	% change
Assets (CHF million)			
Cash and due from banks	108,298	67,746	60
Interest-bearing deposits with banks	368	387	(5)
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	64,321	58,798	9
Securities received as collateral	1,544	2,978	(48)
Trading assets	47,686	65,955	(28)
Investment securities	2,405	1,717	40
Other investments	5,428	5,463	(1)
Net loans	265,221	268,104	(1)
Goodwill	1,540	2,868	(46)
Other intangible assets	428	452	(5)
Brokerage receivables	4,851	13,818	(65)
Other assets	36,478	41,753	(13)
Total assets	538,568	530,039	2
Liabilities and equity (CHF million)			
Due to banks	9,925	11,905	(17)
Customer deposits	167,209	234,554	(29)
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	6,461	20,371	(68)
Obligation to return securities received as collateral	1,544	2,978	(48)
Trading liabilities	15,002	18,337	(18)
Short-term borrowings	120,026	14,489	–
Long-term debt	145,269	150,661	(4)
Brokerage payables	2,682	11,442	(77)
Other liabilities	13,918	16,826	(17)
Total liabilities	482,036	481,563	0
Total shareholder's equity	55,947	47,871	17
Noncontrolling interests	585	605	(3)
Total equity	56,532	48,476	17
Total liabilities and equity	538,568	530,039	2
BIS statistics (Basel III)			
end of	1Q23	4Q22	% change
Eligible capital (CHF million)			
Common equity tier 1 (CET1) capital	54,244	40,987	32
Tier 1 capital	54,244	54,843	(1)
Total eligible capital	54,244	54,843	(1)
Capital ratios (%)			
CET1 ratio	22.4	16.4	–
Tier 1 ratio	22.4	22.0	–
Total capital ratio	22.4	22.0	–



Exhibits

No. Description

99.1 Credit Suisse Earnings Release 1Q23

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrants have duly caused this report to be signed on their behalf by the undersigned, thereunto duly authorized.

CREDIT SUISSE GROUP AG and CREDIT SUISSE AG

(Registrants)

Date: April 24, 2023

By:

/s/ Ulrich Körner

Ulrich Körner
Chief Executive Officer

/s/ Dixit Joshi

Dixit Joshi
Chief Financial Officer



Earnings Release
1Q23



Key metrics

	1Q23	4Q22	in / end of 1Q22	QoQ	% change YoY
Credit Suisse (CHF million)					
Net revenues	18,467	3,060	4,412	–	319
Provision for credit losses	83	41	(110)	102	–
Total operating expenses	5,620	4,334	4,950	30	14
Income/(loss) before taxes	12,764	(1,315)	(428)	–	–
Net income/(loss) attributable to shareholders	12,432	(1,393)	(273)	–	–
Cost/income ratio (%)	30.4	141.6	112.2	–	–
Effective tax rate (%)	2.7	(6.2)	35.3	–	–
Basic earnings/(loss) per share (CHF)	3.10	(0.46)	(0.10)	–	–
Diluted earnings/(loss) per share (CHF)	3.08	(0.46)	(0.10)	–	–
Return on equity (%)	109.4	(12.5)	(2.4)	–	–
Return on tangible equity (%)	117.5	(13.5)	(2.6)	–	–
Assets under management and net new assets (CHF billion)					
Assets under management	1,252.6	1,293.6	1,554.9	(3.2)	(19.4)
Net new assets/(net asset outflows)	(61.2)	(110.5)	7.9	(44.6)	–
Balance sheet statistics (CHF million)					
Total assets	540,291	531,358	739,554	2	(27)
Net loans	261,424	264,165	287,682	(1)	(9)
Total shareholders' equity	54,066	45,129	44,442	20	22
Tangible shareholders' equity	52,085	41,768	41,204	25	26
Basel III regulatory capital and leverage statistics (%)					
CET1 ratio	20.3	14.1	13.8	–	–
CET1 leverage ratio	7.6	5.4	4.3	–	–
Tier 1 leverage ratio	7.6	7.7	6.1	–	–
Share information					
Shares outstanding (million)	3,946.9	3,941.3	2,556.1	0	54
of which common shares issued	4,002.2	4,002.2	2,650.7	0	51
of which treasury shares	(55.3)	(60.9)	(94.6)	(9)	(42)
Book value per share (CHF)	13.70	11.45	17.39	20	(21)
Tangible book value per share (CHF)	13.20	10.60	16.12	25	(18)
Market capitalization (CHF million)	3,292	11,062	19,272	(70)	(83)
Number of employees (full-time equivalents)					
Number of employees	48,150	50,480	51,030	(5)	(6)

See relevant tables and related narratives for additional information on these metrics.

Credit Suisse

In 1Q23, we recorded net income attributable to shareholders of CHF 12,432 million. As of the end of 1Q23, our CET1 ratio was 20.3%. On March 19, 2023, Credit Suisse Group AG and UBS Group AG entered into a merger agreement.

Results	in / end of			% change	
	1Q23	4Q22	1Q22	QoQ	YoY
Statements of operations (CHF million)					
Net interest income	900	1,484	1,459	(39)	(38)
Commissions and fees	1,733	1,893	2,601	(8)	(33)
Trading revenues ¹	62	(581)	(36)	–	–
Other revenues	15,772	264	388	–	–
Net revenues	18,467	3,060	4,412	–	319
Provision for credit losses	83	41	(110)	102	–
Compensation and benefits	2,398	2,062	2,458	16	(2)
General and administrative expenses	1,392	1,710	2,148	(19)	(35)
Commission expenses	207	210	298	(1)	(31)
Goodwill impairment	1,324	0	0	–	–
Restructuring expenses	299	352	46	(15)	–
Total other operating expenses	3,222	2,272	2,492	42	29
Total operating expenses	5,620	4,334	4,950	30	14
Income/(loss) before taxes	12,764	(1,315)	(428)	–	–
Income tax expense/(benefit)	345	82	(151)	321	–
Net income/(loss)	12,419	(1,397)	(277)	–	–
Loss attributable to noncontrolling interests	(13)	(4)	(4)	225	225
Net income/(loss) attributable to shareholders	12,432	(1,393)	(273)	–	–
Statement of operations metrics					
Return on regulatory capital (%)	125.5	(11.8)	(3.5)	–	–
Cost/income ratio (%)	30.4	141.6	112.2	–	–
Effective tax rate (%)	2.7	(6.2)	35.3	–	–
Earnings per share (CHF)					
Basic earnings/(loss) per share	3.10	(0.46)	(0.10)	–	–
Diluted earnings/(loss) per share	3.08	(0.46)	(0.10)	–	–
Return on equity (% , annualized)					
Return on equity	109.4	(12.5)	(2.4)	–	–
Return on tangible equity	117.5	(13.5)	(2.6)	–	–
Book value per share (CHF)					
Book value per share	13.70	11.45	17.39	20	(21)
Tangible book value per share	13.20	10.60	16.12	25	(18)
Balance sheet statistics (CHF million)					
Total assets	540,291	531,358	739,554	2	(27)
Risk-weighted assets	243,431	250,540	273,043	(3)	(11)
Leverage exposure	653,047	650,551	878,023	0	(26)
Number of employees (full-time equivalents)					
Number of employees	48,150	50,480	51,030	(5)	(6)

¹ Represent revenues on a product basis which are not representative of business results within our business segments as segment results utilize financial instruments across various product types

Credit Suisse reporting structure

Effective January 1, 2023, Credit Suisse includes the results of our five reporting segments, including the Capital Release Unit, and the Corporate Center. Core does not include the Capital Release Unit.



Results summary

1Q23 results

In 1Q23, we reported net income attributable to shareholders of CHF 12,432 million, compared to a net loss attributable to shareholders of CHF 273 million in 1Q22 and a net loss attributable to shareholders of CHF 1,393 million in 4Q22. 1Q23 primarily reflected the write-down to zero of CHF 15 billion of additional tier 1 capital notes as ordered by the Swiss Financial Market Supervisory Authority FINMA (FINMA). In 1Q23, we reported income before taxes of CHF 12,764 million, compared to a loss before taxes of CHF 428 million in 1Q22 and a loss before taxes of CHF 1,315 million in 4Q22. Adjusted loss before taxes in 1Q23 was CHF 1,316 million compared to adjusted income before taxes of CHF 300 million in 1Q22 and an adjusted loss before taxes of CHF 1,015 million in 4Q22.

> Refer to "Credit Suisse and UBS to merge" in "Other information" for further information relating to the merger announcement and the additional tier 1 capital notes write-down.

In 1Q23, and described further below, Credit Suisse experienced significant withdrawals of cash deposits, non-renewal of maturing time deposits and net asset outflows across Wealth Management, Swiss Bank and Asset Management. The corresponding reduction in assets under management and deposits is expected to lead to reduced net interest income and recurring commissions and fees. In particular, this will likely lead to a substantial loss in Wealth Management in 2Q23.

In light of the merger announcement, the adverse revenue impact from the previously disclosed exit from non-core businesses and exposures, restructuring charges and funding costs, Credit Suisse would also expect the Investment Bank and the Group to report a substantial loss before taxes in 2Q23 and 2023. The Group's actual results will depend on a number of factors, including the performance of the Investment Bank and Wealth Management divisions; deposit or net asset flows; the continued exit of non-core positions; goodwill, software and other impairments; litigation; regulatory actions; credit spreads and related funding costs; the usage and availability of the Swiss National Bank (SNB) liquidity facilities; the impact of continued voluntary and involuntary employee attrition; and the outcome of certain other items, including potential real estate sales. We are taking proactive measures to protect our client franchise, manage risks and facilitate operational stability.

Results details

Net revenues

In 1Q23, we reported net revenues of CHF 18,467 million, which increased 319% compared to 1Q22, driven by higher net revenues in the Corporate Center and in the Capital Release Unit, partially offset by lower net revenues in the Investment Bank, Wealth Management, Swiss Bank and Asset Management. The increase in net revenues in the Corporate Center was primarily driven by treasury results, which reflected the write-down of additional tier 1 capital notes ordered by FINMA. The increase in the Capital Release Unit primarily reflected a gain of CHF 726 million from the sale of a significant part of the Securitized Products Group (SPG) (Apollo transaction) to entities and funds managed by affiliates of Apollo Global Management (collectively, Apollo), partially offset by a loss of revenues from businesses transferred from the Investment Bank, particularly from SPG. The decrease in the Investment Bank was driven by low client activity and less favorable conditions, particularly in our equity sales and trading, capital markets and advisory franchises. The decrease in Wealth Management mainly reflected lower net interest income, lower transaction- and performance-based revenues and lower recurring commissions and fees. The decrease in the Swiss Bank reflected lower revenues across all major revenue categories. The decrease in Asset Management was mainly driven by decreased investment and partnership income and reduced management fees.

Compared to 4Q22, net revenues were significantly higher, primarily reflecting higher net revenues in the Corporate Center, the Capital Release Unit and the Investment Bank, partially offset by lower net revenues in Wealth Management, Asset Management

and Swiss Bank. The increase in the Corporate Center was primarily driven by treasury results, which reflected the write-down of additional tier 1 capital notes. The increase in the Capital Release Unit mainly reflected the gain on the Apollo transaction. Net revenues in the Investment Bank increased compared to low levels in 4Q22 and included gains on increased buyback activity principally in our structured notes portfolio across equities and fixed income at prices reflecting significantly wider own credit spreads. The decrease in Wealth Management mainly reflected lower other revenues and lower net interest income. The decrease in Asset Management was driven by decreased investment and partnership income, partially offset by higher performance and transaction revenues. The decrease in Swiss Bank was primarily driven by lower other revenues and lower net interest income.

Provision for credit losses

In 1Q23, provision for credit losses of CHF 83 million were mainly related to CHF 40 million in the Swiss Bank, CHF 21 million in Wealth Management and CHF 18 million in the Investment Bank and reflected an increase in specific provisions and an increase in non-specific provisions for expected credit losses compared to 1Q22.

Total operating expenses

Compared to 1Q22, total operating expenses of CHF 5,620 million increased 14%, mainly reflecting a goodwill impairment charge of CHF 1,324 million in 1Q23, which was mostly recognized in Wealth Management and increased restructuring expenses, partially offset by lower general and administrative expenses and lower compensation and benefits. 1Q23 included restructuring expenses of CHF 299 million. General and administrative expenses decreased 35%, mainly due to lower litigation expenses compared to 1Q22. Net litigation expenses of CHF 703 million in 1Q22 were primarily related to developments in a number of previously disclosed legal matters, mainly in the Corporate Center and Wealth Management. Compared to 1Q22, compensation and benefits decreased 2%, mainly reflecting lower variable compensation. Adjusted total operating expenses in 1Q23 of CHF 3,966 million decreased 6% compared to CHF 4,237 million in 1Q22.

Compared to 4Q22, total operating expenses increased 30%, mainly reflecting the goodwill impairment charge in 1Q23 and increases in compensation and benefits, partially offset by lower general and administrative expenses and lower restructuring expenses. Compensation and benefits increased 16%, including the acceleration of deferred compensation expenses due to the cancellation of outstanding deferred compensation awards. General and administrative expenses decreased 19%, primarily reflecting lower litigation expenses. Adjusted total operating expenses were stable compared to 4Q22.

> Refer to "Compensation" and "Goodwill" in "Other information" for further information relating to these matters.

Income tax

The Group has used a year-to-date effective tax rate (discrete method) as the best estimate of the annual effective tax rate to calculate the 1Q23 income tax expense. This is mainly due to the inability to forecast for 2023 related to the previously disclosed issues affecting Credit Suisse.

In 1Q23, the Group incurred an income tax expense of CHF 345 million on pre-tax income of CHF 12,764 million. This primarily reflected the impact of CHF 218 million from the geographical mix of results adjusted by certain non-deductible expenses. Additionally, we recorded a valuation allowance of CHF 109 million reflecting the reassessment of deferred tax assets due to the Group's performance. The impact of the gain from the write-down of additional tier 1 capital notes, on which the Group utilized significant tax losses from prior years, resulted in a tax expense of CHF 18 million.

Overall, net deferred tax liabilities decreased CHF 437 million from CHF 1,073 million in 4Q22 to CHF 636 in 1Q23, primarily driven by a reduction in deferred tax liability associated with the additional tier 1 capital notes write-down, partially offset by the reassessment of the deferred tax assets.

Regulatory capital

As of the end of 1Q23, our Bank for International Settlements (BIS) common equity tier 1 (CET1) ratio was 20.3% and our risk-weighted assets (RWA) were CHF 243.4 billion.

Core results

In 1Q23, Core net revenues of CHF 18,122 million increased 329% compared to 1Q22, reflecting higher net revenues in the Corporate Center, partially offset by lower net revenues in the Investment Bank, Wealth Management, Swiss Bank and Asset Management. Provision for credit losses was CHF 79 million, primarily related to provision for credit losses of CHF 40 million in Swiss Bank, CHF 21 million in Wealth Management and CHF 18 million in the Investment Bank. Total operating expenses of CHF 4,880 million increased 16% compared to 1Q22, mainly reflecting the goodwill impairment charge in 1Q23 and significantly increased restructuring expenses, partially offset by a 42% decrease in general and administrative expenses.

Compared to 4Q22, Core net revenues increased 466% compared to 4Q22, primarily reflecting increased net revenues in the Corporate Center and in the Investment Bank, partially offset by lower net revenues in Wealth Management, Asset Management and Swiss Bank. Total operating expenses increased 35% compared to 4Q22, primarily reflecting the goodwill impairment charge in 1Q23 and a 14% increase in compensation and benefits, partially offset by a 18% decrease in general and administrative expenses and a 35% decrease in restructuring expenses.

Other information

Credit Suisse and UBS to merge

On March 19, 2023, Credit Suisse Group AG (Credit Suisse) and UBS Group AG (UBS) entered into a merger agreement following the intervention of the Swiss Federal Department of Finance, the SNB and FINMA. UBS will be the surviving entity upon closing of the merger transaction. Under the terms of the merger agreement all shareholders of Credit Suisse will receive 1 share in UBS for 22.48 shares in Credit Suisse. This exchange ratio reflected a merger consideration of approximately CHF 3 billion for all shares in Credit Suisse at a price of CHF 17.11 per UBS share as of the close on March 17, 2023 at the SIX Swiss Exchange. The exchange ratio is fixed and will not be adjusted to reflect changes in the price of shares in UBS or Credit Suisse prior to completion. In connection with the merger, Credit Suisse's shares and American Depositary Shares will be delisted from stock exchanges. The SNB has granted Credit Suisse access to significant credit facilities that provide substantial liquidity support to Credit Suisse, a portion of which are supported by default guarantees provided by the Swiss government. As of March 31, 2023 the net amount of borrowings under these facilities amounted to CHF 108 billion after repayments of CHF 60 billion in the quarter, with further repayments of CHF 10 billion as of the date of this report. Pursuant to an emergency ordinance which was issued by the Swiss Federal Council, the merger transaction will be implemented without the need for the approval of the shareholders of Credit Suisse or UBS. We will work closely with UBS to ensure that the transaction is completed in a timely manner. The consummation of the merger remains subject to customary closing conditions.

> Refer to "Risk factors" for further information on risks that may arise in relation to these matters.

In addition, FINMA ordered that Credit Suisse's outstanding amount of additional tier 1 capital notes of nominal value of approximately CHF 16 billion and a fair value of approximately CHF 15 billion be written down to zero. This led to a corresponding gain recognized in 1Q23 of CHF 15,007 million.

Annual General Meeting

As a result of the announced planned merger between Credit Suisse and UBS, the Board of Directors of Credit Suisse (Board) announced on March 29, 2023 the withdrawal of certain previously disclosed proposals to the 2023 Annual General Meeting (AGM). The withdrawals pertained to the proposed discharge of members of the Board and the Executive Board for the financial year 2022 and the proposed Transformation Award as it related to compensation for the Executive Board. In addition, the Board further informed shareholders on its proposal regarding the appropriation of retained earnings and ordinary distribution of a dividend. Pursuant to the emergency ordinance, Credit Suisse was not permitted to resolve on and distribute a dividend for the financial year 2022, and the proposal for distribution of a dividend was withdrawn, although under Swiss law shareholders would still need to vote on the appropriation of retained earnings.

On April 4, 2023 at the AGM, the shareholders of Credit Suisse approved all remaining proposals of the Board at the AGM in Zurich, with two exceptions. The shareholders did not approve the proposed maximum aggregate compensation of the Executive Board for a term until the closing of the planned merger with UBS, which compensation would have been pro-rated for such term, and certain proposed amendments to the Articles of Association were not adopted due to a lack of the required quorum. Shareholders elected Axel P. Lehmann as Chairman of the Board for a term until the closing of the planned merger with UBS. Following his re-election to the Board, Christian Gellerstad was appointed as Vice-Chair and Lead Independent Director. Shan Li, Seraina Macia, Blythe Masters, Richard Meddings and Ana Paula Pessoa did not stand for re-election at the 2023 AGM. Shareholders confirmed all other members of the Board who stood for re-election for a term until the closing of the planned merger with UBS.

Securitized Products Group

On November 15, 2022, Credit Suisse announced that it entered into definitive transaction agreements for the Apollo transaction. This transaction involves phased closings through the first half of 2023. On February 7, 2023, the parties completed the first closing of such transaction, and the majority of the assets and professionals associated with the transaction are now part of or managed by ATLAS SP Partners, a new standalone credit firm focused on asset-backed financing and capital markets solutions. Following this first closing, there were three subsequent closings in 1Q23 with further assets transferred. These closings, together with the recently completed sales of other portfolio assets to Apollo and other third parties and certain business reductions, resulted in a total reduction of the asset equivalent exposures of SPG and related financing businesses from USD 74 billion as of September 30, 2022 to approximately USD 26 billion as of March 31, 2023. In 1Q23, Credit Suisse recognized a pre-tax gain of USD 0.8 billion as a result of the Apollo transaction, partially offset by losses on the valuation of certain financing arrangements associated with the Apollo transaction.

In connection with the initial closing of this transaction, Credit Suisse and Apollo entered into various ancillary agreements related to the transaction, including an investment management agreement, certain financing arrangements and a transition services agreement.

> Refer to "Strategy" in I – Information on the company in the Credit Suisse Annual Report 2022 for further information regarding these agreements.

Liquidity issues in 1Q23

In the second half of March 2023, Credit Suisse experienced significant withdrawals of cash deposits as well as non-renewal of maturing time deposits. Customer deposits declined by CHF 67 billion in 1Q23. These outflows, which were most acute in the days immediately preceding and following the announcement of the merger, stabilized to much lower levels, but had not yet reversed as of the date of this report. The Group's three-month average daily LCR was 178% as of the end of 1Q23, improved from lower levels earlier in the quarter after benefitting from the liquidity facilities from the SNB. Prior to the significantly increased outflows, on March 14, 2023 our quarter to date daily average LCR was approximately 153%, improved from the three-month average daily LCR of 144% at the end of 2022.

Outflows in assets under management in 1Q23

At the Group level, net asset outflows in 1Q23 were CHF 61 billion or 5% of assets under management as of the end of 4Q22, in particular following net asset outflows in the second half of March 2023 across all businesses. In Wealth Management, these outflows in 1Q23 represented 9% of assets under management reported as of the end of 4Q22. In the Swiss Bank, these outflows in 1Q23 represented 1% of assets under management reported as of the end of 4Q22. In Asset Management, these outflows in 1Q23 represented 3% of assets under management reported as of the end of 4Q22. These outflows have moderated but have not yet reversed as of the date of this report. Deposit outflows represented 57% of Wealth Management and Swiss Bank net asset outflows in 1Q23.

CS First Boston

Credit Suisse Group AG, and M. Klein & Co LLC have mutually agreed to terminate the acquisition of The Klein Group, LLC (i.e., the investment banking business of M. Klein & Co. LLC) by Credit Suisse considering Credit Suisse's recently announced merger with UBS Group AG.

Goodwill

Following a review of the Group's financial plans to reflect the deposit and assets under management outflows in 1Q23, the Group concluded that the estimated fair value of the Wealth Management reporting unit was below its related carrying value and as a result a goodwill impairment charge of CHF 1.3 billion was recorded for the quarter, resulting in a goodwill balance of zero for that reporting unit. The fair value of the remaining reporting units with goodwill (Swiss Bank and Asset Management) exceeded their related carrying values and no further impairments were necessary as of March 31, 2023.

The fair value of the Asset Management reporting unit exceeded its related carrying value by less than 10%. The reporting unit has experienced a significant level of assets under management outflows. The goodwill allocated to this reporting unit has become more sensitive to an impairment due to these outflows, and there is a significant risk of a future goodwill impairment for this reporting unit if its future performances does not achieve the financial projections contained within our financial plan.

As a result of the announced strategy and organizational changes, the Private Fund Group business in the Asset Management reporting unit was transferred to the Investment Bank reporting unit effective January 1, 2023, resulting in a transfer of CHF 30 million of goodwill between the reporting units. The Group fully impaired this goodwill in 1Q23.

Impairment of capitalized internally developed software costs

Following an assessment of the balance sheet carrying value of internally developed software costs, an impairment of CHF 65 million was recorded as restructuring expenses in 1Q23 relating to the Investment Bank.

Compensation

On April 5, 2023, the Swiss Federal Council instructed the Swiss Federal Department of Finance to cancel or reduce the outstanding variable remuneration for the top three levels of management at Credit Suisse. Under US GAAP accounting guidance, the nature of such a cancellation of deferred compensation required an acceleration of deferred compensation expense in 1Q23 for the outstanding share-based portion of the compensation awards with a corresponding credit to shareholders' equity, and for the smaller impact from the cancellation of cash-based awards a credit to the income statement for previously accrued expenses.

Credit ratings

Following the announcement of the merger, all three major rating agencies revised their credit outlooks. On March 20, 2023, Moody's Investor Service placed on review for upgrade all long-term ratings of Credit Suisse Group AG and Credit Suisse AG, as well as the short-term ratings of Credit Suisse AG, and at the same time revised the outlook for Credit Suisse Group AG and Credit Suisse AG to "Ratings under review" from "Negative". Also on March 20, 2023, S&P Global Ratings placed the long- and short-term issuer credit ratings of Credit Suisse Group AG and Credit Suisse AG on "CreditWatch Positive" from "Stable". On March 21, 2023, Fitch Ratings placed Credit Suisse Group AG's Long-Term Issuer Default Rating and the Long-Term and Short-Term Issuer Default Ratings of Credit Suisse AG on "Rating Watch Evolving" from "Negative".

Public tender offers for debt securities

Credit Suisse also announced on March 16, 2023 that it was making a cash tender offer in relation to ten US dollar denominated senior debt securities for an aggregate consideration of up to USD 2.5 billion. Concurrently, Credit Suisse also announced a separate cash tender offer in relation to four Euro denominated senior debt securities for an aggregate consideration of up to EUR 500 million. The offers expired on March 22, 2023, and pursuant to the tender offers, we repurchased USD 0.6 billion and EUR 2.0 billion of such debt securities.

Material weakness of internal control over financial reporting

In March 2023, the Group reported material weaknesses of internal control over financial reporting as disclosed and detailed in the 2022 Annual Report audited financial statements in the section entitled "Controls and procedures". Management is committed to maintaining a strong internal control environment and implementing measures designed to ensure that the material weaknesses are remediated as soon as possible.

Supply chain finance funds matter

As previously reported, in early March 2021, the boards of four supply chain finance funds (SCFF) managed by certain Group subsidiaries decided to suspend redemptions and subscriptions of those funds to protect the interests of the funds' investors, to terminate the SCFF and to proceed to their liquidation. Credit Suisse Asset Management (Schweiz) AG (CSAM) acts as the portfolio manager of the SCFF.

Beginning in 4Q21, we introduced a fee waiver program for clients impacted by this matter wherein certain commissions and fees arising from current and future business transactions may be reimbursed on a quarterly basis, provided certain conditions are met. We incurred negative revenues of CHF 13 million in 1Q23 relating to this fee waiver program, primarily in Wealth Management.

Significant negative consequences of the Archegos and supply chain finance funds matters

In prior financial reports, we have outlined the losses associated with the Archegos matter and the legal and regulatory consequences of that matter and the SCFF matter. There can be no assurance that any additional losses, damages, costs and expenses, as well as any further regulatory and other investigations and actions or any further downgrade of our credit ratings, will not be material to us, including from any impact on our business, financial condition, results of operations, prospects, liquidity, capital position or reputation. For example, we have suffered and may continue to suffer reputational harm and reductions in certain areas of our business, such as outflows of assets, attributable, at least in part, to these matters. The ongoing effect of these matters, and this harm and these reductions, can continue to affect our business overall, including our ability to attract and retain customers, clients, investors and employees and to conduct business transactions with our counterparties. Our employee attrition has been higher over the last year, undoubtedly owing at least in part to these matters. While steps we have taken in response to the Archegos and SCFF matters are designed to reduce the Group's risks, some of these changes will constrain certain areas of our business, thereby impacting negatively our results of operations. These challenges are taking place in the context of worsening macroeconomic and market conditions, potentially amplifying some of the negative consequences noted above.

> Refer to "Risk factors" in I – Information on the company and "Note 40 - Litigation" in VI – Consolidated financial statements – Credit Suisse Group in the Credit Suisse Annual Report 2022 for further information on risks that may arise in relation to these matters and for a description of the regulatory and legal developments relating to these matters.

Format of presentation

In managing our business, revenues are evaluated in the aggregate, including an assessment of trading gains and losses and the related interest income and expense from financing and hedging positions. For this reason, specific individual revenue categories in isolation may not be indicative of performance. Certain reclassifications have been made to prior periods to conform to the current presentation.

Performance measures

Credit Suisse measures firm-wide returns against total shareholders' equity and tangible shareholders' equity, a non-GAAP financial measure also known as tangible book value. Tangible shareholders' equity is calculated by deducting goodwill and other intangible assets from total shareholders' equity as presented in our balance sheet. In addition, Credit Suisse also measures the efficiency of the firm and its divisions with regard to the usage of regulatory capital. Regulatory capital is calculated as the average of 13.5% of RWA and 4.25% of leverage exposure and return on regulatory capital, a non-GAAP financial measure, is calculated using income/(loss) after tax and assumes a tax rate of 30% for periods prior to 2020 and 25% from 2020 onward. For the Investment Bank, return on regulatory capital is based on US dollar denominated numbers. Return on regulatory capital excluding certain items included in our reported results is calculated using results excluding such items, applying the same methodology. Adjusted return on regulatory capital excluding certain items included in our reported results is calculated using results excluding such items, applying the same methodology.

Management believes that these metrics are meaningful as they are measures used and relied upon by industry analysts and investors to assess valuations and capital adequacy.

Risk factors

The merger we previously announced with UBS is subject to closing conditions that, if not satisfied or, to the extent waivable, waived, would result in the merger not being completed, which could seriously jeopardize our financial viability and raise substantial doubt about our ability to continue as a going concern

The merger is subject to the satisfaction (or waiver, to the extent waivable, by UBS) of a number of conditions as set forth in the merger agreement, including, among others, (i) receipt of approval of the transaction by FINMA and granting by FINMA of arrangements separately agreed upon and such decisions and arrangements remaining in full force and effect and not having been amended, conditioned or revoked before completion, (ii) receipt of certain other regulatory approvals that are not subject to any condition, restriction or undertaking that would reasonably be capable of causing a material adverse effect on us, UBS, any of our or UBS's subsidiaries or other affiliates, or the combined group and (iii) receipt of certain governmental approvals that are not subject to any condition, restriction, obligation or undertaking that would result in any disposal of any UBS asset or business or that would reasonably be capable of causing a material adverse effect on us, UBS, any of our or UBS's subsidiaries or other affiliates, or the combined group. There can be no assurance as to when these conditions to the transaction will be satisfied (or, to the extent waivable, waived by UBS), if at all, or that other events will not intervene to delay or result in the failure to complete the transaction. While Credit Suisse believes these conditions will be satisfied and that the merger will be successfully consummated, if the merger were not to be completed, our financial viability could be jeopardized, which would raise substantial doubt regarding our ability to continue as a going concern.

Until the merger is consummated, the risks to our business and operations are exacerbated

In light of the announced merger and other recent events leading to it, many of the risks contained under "Risk Factors" in our Annual Report on Form 20-F for the fiscal year ended December 31, 2022 filed with the Securities and Exchange Commission on March 14, 2023, are exacerbated. These risks include, among others, risks to our operations, the loss of clients, higher employee attrition, additional net asset and deposit outflows and further asset impairments, including subsidiary participation valuations (with potential impacts on Bank Parent capital), IT impairments and goodwill. For example, recent developments have already increased our employee attrition. Delays in the timely consummation of the merger could therefore have a material adverse effect on our business.

> Refer to "Risk factor" in I – Information on the company in the Credit Suisse Annual Report 2022 for further information on risks that could adversely affect our businesses, results of operations and financial condition.

Results overview

in / end of	Wealth Management	Swiss Bank	Asset Management	Investment Bank	Corporate Center	Core	Capital Release Unit	Credit Suisse
1Q23 (CHF million)								
Net revenues	893	973	187	1,017	15,052	18,122	345	18,467
Provision for credit losses	21	40	0	18	0	79	4	83
Compensation and benefits	650	413	128	789	116	2,096	302	2,398
Total other operating expenses	1,683	233	90	658	120	2,784	438	3,222
of which general and administrative expenses	299	178	66	432	96	1,071	321	1,392
of which goodwill impairment	1,294	0	0	30	0	1,324	0	1,324
of which restructuring expenses	46	27	4	106	17	200	99	299
Total operating expenses	2,333	646	218	1,447	236	4,880	740	5,620
Income/(loss) before taxes	(1,461)	287	(31)	(448)	14,816	13,163	(399)	12,764
Return on regulatory capital (%)	(72.3)	9.0	(15.5)	(25.3)	–	158.4	–	125.5
Cost/income ratio (%)	261.3	66.4	116.6	142.3	–	26.9	–	30.4
Total assets	119,471	208,828	3,124	64,025	46,769	442,217	98,074	540,291
Goodwill	0	485	1,068	0	0	1,553	0	1,553
Risk-weighted assets	46,331	70,420	8,054	39,631	39,277	203,713	39,718	243,431
Leverage exposure	133,394	231,497	2,259	118,037	48,282	533,469	119,578	653,047
4Q22 (CHF million)								
Net revenues	1,094	1,016	261	621	209	3,201	(141)	3,060
Provision for credit losses	(5)	28	1	2	0	26	15	41
Compensation and benefits	636	408	142	658	(10)	1,834	228	2,062
Total other operating expenses	528	274	146	736	106	1,790	482	2,272
of which general and administrative expenses	419	227	111	490	59	1,306	404	1,710
of which restructuring expenses	65	13	12	165	53	308	44	352
Total operating expenses	1,164	682	288	1,394	96	3,624	710	4,334
Income/(loss) before taxes	(65)	306	(28)	(775)	113	(449)	(866)	(1,315)
Return on regulatory capital (%)	(3.0)	9.5	(13.3)	(37.7)	–	(5.1)	–	(11.8)
Cost/income ratio (%)	106.4	67.1	110.3	224.5	–	113.2	–	141.6
Total assets	128,192	197,627	3,382	74,932	24,577	428,710	102,648	531,358
Goodwill	1,304	488	1,111	0	0	2,903	0	2,903
Risk-weighted assets	47,241	69,646	8,408	39,647	39,424	204,366	46,174	250,540
Leverage exposure	140,377	220,792	2,508	129,190	24,275	517,142	133,409	650,551
1Q22 (CHF million)								
Net revenues	1,342	1,144	339	1,609	(213)	4,221	191	4,412
Provision for credit losses	26	23	0	(3)	(1)	45	(155)	(110)
Compensation and benefits	648	410	143	868	41	2,110	348	2,458
Total other operating expenses	670	232	139	582	477	2,100	392	2,492
of which general and administrative expenses	603	197	111	466	473	1,850	298	2,148
of which restructuring expenses	10	1	0	4	(2)	13	33	46
Total operating expenses	1,318	642	282	1,450	518	4,210	740	4,950
Income/(loss) before taxes	(2)	479	57	162	(730)	(34)	(394)	(428)
Return on regulatory capital (%)	(0.1)	14.4	27.6	6.9	–	(0.3)	–	(3.5)
Cost/income ratio (%)	98.2	56.1	83.2	90.1	–	99.7	–	112.2
Total assets	162,284	223,087	3,678	135,892	43,345	568,286	171,268	739,554
Goodwill	1,328	489	1,114	0	0	2,931	0	2,931
Risk-weighted assets	50,714	71,029	8,206	43,417	42,766	216,132	56,911	273,043
Leverage exposure	170,816	248,559	2,812	195,704	41,635	659,526	218,497	878,023

Reconciliation of adjustment items

Results excluding certain items included in our reported results are non-GAAP financial measures. Management believes that such results provide a useful presentation of our operating results for purposes of assessing our Group and divisional performance consistently over time, on a basis that excludes items that management does not consider representative of our underlying performance. Provided below is a reconciliation of our adjusted results to the most directly comparable US GAAP measures.

in	Wealth Management	Swiss Bank	Asset Management	Investment Bank	Corporate Center	Core Results	Capital Release Unit	Credit Suisse
1Q23 (CHF million)								
Net revenues	893	973	187	1,017	15,052	18,122	345	18,467
Real estate (gains)/losses	0	(1)	0	0	0	(1)	0	(1)
(Gains)/losses on business sales	0	0	0	0	0	0	(726)	(726)
Additional tier 1 capital notes write-down	0	0	0	0	(15,007)	(15,007)	0	(15,007)
Adjusted net revenues	893	972	187	1,017	45	3,114	(381)	2,733
Provision for credit losses	21	40	0	18	0	79	4	83
Total operating expenses	2,333	646	218	1,447	236	4,880	740	5,620
Goodwill impairment	(1,294)	–	0	(30)	0	(1,324)	0	(1,324)
Restructuring expenses	(46)	(27)	(4)	(106)	(17)	(200)	(99)	(299)
Major litigation provisions	(6)	0	0	0	(16)	(22)	0	(22)
Expenses related to real estate disposals	0	0	0	(2)	0	(2)	(1)	(3)
Archegos	0	0	0	0	0	0	(6)	(6)
Adjusted total operating expenses	987	619	214	1,309	203	3,332	634	3,966
Income/(loss) before taxes	(1,461)	287	(31)	(448)	14,816	13,163	(399)	12,764
Adjusted income/(loss) before taxes	(115)	313	(27)	(310)	(158)	(297)	(1,019)	(1,316)
Adjusted return on tangible equity (%)	–	–	–	–	–	–	–	(16.5)
Adjusted return on regulatory capital (%)	(5.7)	9.9	(13.8)	(17.5)	–	(3.6)	–	(12.9)
4Q22 (CHF million)								
Net revenues	1,094	1,016	261	621	209	3,201	(141)	3,060
Real estate (gains)/losses	(122)	(51)	0	0	(18)	(191)	0	(191)
(Gain)/loss on InvestLab/Allfunds Group	0	0	0	0	0	0	75	75
(Gain)/loss on equity investment in SIX Group AG	10	10	0	0	0	20	0	20
Adjusted net revenues	982	975	261	621	191	3,030	(66)	2,964
Provision for credit losses	(5)	28	1	2	0	26	15	41
Total operating expenses	1,164	682	288	1,394	96	3,624	710	4,334
Restructuring expenses	(65)	(13)	(12)	(165)	(53)	(308)	(44)	(352)
Major litigation provisions	(6)	0	0	(12)	12	(6)	(28)	(34)
Expenses related to equity investment in Allfunds Group	0	0	0	0	0	0	(2)	(2)
Archegos	0	0	0	0	0	0	(8)	(8)
Adjusted total operating expenses	1,093	669	276	1,217	55	3,310	628	3,938
Income/(loss) before taxes	(65)	306	(28)	(775)	113	(449)	(866)	(1,315)
Adjusted income/(loss) before taxes	(106)	278	(16)	(598)	136	(306)	(709)	(1,015)
Adjusted return on tangible equity (%)	–	–	–	–	–	–	–	(9.6)
Adjusted return on regulatory capital (%)	(4.8)	8.6	(7.4)	(29.0)	–	(3.5)	–	(9.1)

Reconciliation of adjustment items (continued)

in	Wealth Management	Swiss Bank	Asset Management	Investment Bank	Corporate Center	Core Results	Capital Release Unit	Credit Suisse
1Q22 (CHF million)								
Net revenues	1,342	1,144	339	1,609	(213)	4,221	191	4,412
Real estate (gains)/losses	(20)	(84)	(1)	(50)	0	(155)	(9)	(164)
(Gains)/losses on business sales	3	0	0	0	0	3	0	3
(Gain)/loss on InvestLab/Allfunds Group	0	0	0	0	0	0	353	353
(Gain)/loss on equity investment in SIX Group AG	(2)	(3)	0	0	0	(5)	0	(5)
Archehos	0	0	0	0	0	0	(17)	(17)
Adjusted net revenues	1,323	1,057	338	1,559	(213)	4,064	518	4,582
Provision for credit losses	26	23	0	(3)	(1)	45	(155)	(110)
Archehos	0	0	0	0	0	0	155	155
Adjusted provision for credit losses	26	23	0	(3)	(1)	45	0	45
Total operating expenses	1,318	642	282	1,450	518	4,210	740	4,950
Restructuring expenses	(10)	(1)	0	(4)	2	(13)	(33)	(46)
Major litigation provisions	(230)	0	0	0	(423)	(653)	0	(653)
Expenses related to real estate disposals	0	0	0	(2)	0	(2)	(1)	(3)
Archehos	0	0	0	0	0	0	(11)	(11)
Adjusted total operating expenses	1,078	641	282	1,444	97	3,542	695	4,237
Income/(loss) before taxes	(2)	479	57	162	(730)	(34)	(394)	(428)
Adjusted income/(loss) before taxes	219	393	56	118	(309)	477	(177)	300
Adjusted return on tangible equity (%)	–	–	–	–	–	–	–	4.3
Adjusted return on regulatory capital (%)	9.3	11.8	27.0	5.0	–	5.1	–	2.4

Wealth Management

In 1Q23, we reported a loss before taxes of CHF 1,461 million, mainly reflecting a goodwill impairment charge of CHF 1,294 million, compared to a loss before taxes of CHF 2 million in 1Q22. Net revenues of CHF 893 million decreased 33% compared to 1Q22.

Results summary

1Q23 results

In 1Q23, we reported a loss before taxes of CHF 1,461 million compared to a loss before taxes of CHF 2 million in 1Q22. Net revenues of CHF 893 million decreased 33%, mainly reflecting lower net interest income, lower transaction- and performance-based revenues and lower recurring commissions and fees. We recorded a provision for credit losses of CHF 21 million compared to a provision for credit losses of CHF 26 million in 1Q22. Total operating expenses of CHF 2,333 million increased 77%, mainly driven by a goodwill impairment charge of CHF 1,294 million in 1Q23.

We reported a loss before taxes of CHF 1,461 million compared to a loss before taxes of CHF 65 million in 4Q22. Net revenues decreased 18%, mainly reflecting lower other revenues and lower net interest income. We recorded a provision for credit losses of CHF 21 million compared to a release of provision for credit losses of CHF 5 million in 4Q22. Total operating expenses increased 100%, mainly driven by the goodwill impairment charge.

Capital and leverage metrics

As of the end of 1Q23, we reported RWA of CHF 46.3 billion, a decrease of CHF 0.9 billion compared to the end of 4Q22, mainly due to movements in risk levels in credit risk, driven by a decrease in lending exposures, partially offset by positive impacts from external and internal model and parameter updates in credit risk. Leverage exposure of CHF 133.4 billion was CHF 7.0 billion lower compared to the end of 4Q22, mainly driven by lower business usage and a decrease in high-quality liquid assets (HQLA).

Divisional results

	in / end of			% change	
	1Q23	4Q22	1Q22	QoQ	YoY
Statements of operations (CHF million)					
Net revenues	893	1,094	1,342	(18)	(33)
Provision for credit losses	21	(5)	26	–	(19)
Compensation and benefits	650	636	648	2	0
General and administrative expenses	299	419	603	(29)	(50)
Commission expenses	44	44	57	0	(23)
Goodwill impairment	1,294	0	0	–	–
Restructuring expenses	46	65	10	(29)	–
Total other operating expenses	1,683	528	670	219	151
Total operating expenses	2,333	1,164	1,318	100	77
Loss before taxes	(1,461)	(65)	(2)	–	–
Statement of operations metrics					
Return on regulatory capital (%)	(72.3)	(3.0)	(0.1)	–	–
Cost/income ratio (%)	261.3	106.4	98.2	–	–

Divisional results (continued)

	in / end of			% change	
	1Q23	4Q22	1Q22	QoQ	YoY
Net revenue detail (CHF million)					
Net interest income	345	438	549	(21)	(37)
Recurring commissions and fees	342	353	413	(3)	(17)
Transaction- and performance-based revenues	206	189	360	9	(43)
Other revenues	0	114	20	(100)	(100)
Net revenues	893	1,094	1,342	(18)	(33)
Balance sheet statistics (CHF million)					
Total assets	119,471	128,192	162,284	(7)	(26)
Net loans	76,854	79,483	96,987	(3)	(21)
Risk-weighted assets	46,331	47,241	50,714	(2)	(9)
Leverage exposure	133,394	140,377	170,816	(5)	(22)
Margins on assets under management (annualized) (bp)					
Gross margin ¹	66	75	74	-	-
Net margin ²	(108)	(5)	0	-	-
Number of relationship managers					
Number of relationship managers	1,660	1,790	1,940	(7)	(14)

Net interest income includes a term spread credit on stable deposit funding and a term spread charge on loans. Recurring commissions and fees includes investment product management, discretionary mandate and other asset management-related fees, fees for general banking products and services and revenues from wealth structuring solutions. Transaction- and performance-based revenues arise primarily from brokerage and product issuing fees, fees from foreign exchange client transactions, trading and sales income, equity participations income and other transaction- and performance-based income.

¹ Net revenues divided by average assets under management.

² Income before taxes divided by average assets under management.

Reconciliation of adjustment items

in	Wealth Management		
	1Q23	4Q22	1Q22
Results (CHF million)			
Net revenues	893	1,094	1,342
Real estate (gains)/losses	0	(122)	(20)
(Gains)/losses on business sales	0	0	3
(Gain)/loss on equity investment in SIX Group AG	0	10	(2)
Adjusted net revenues	893	982	1,323
Provision for credit losses	21	(5)	26
Total operating expenses	2,333	1,164	1,318
Goodwill impairment	(1,294)	-	-
Restructuring expenses	(46)	(65)	(10)
Major litigation provisions	(6)	(6)	(230)
Adjusted total operating expenses	987	1,093	1,078
Loss before taxes	(1,461)	(65)	(2)
Adjusted income/(loss) before taxes	(115)	(106)	219
Adjusted return on regulatory capital (%)	(5.7)	(4.8)	9.3

Adjusted results are non-GAAP financial measures. Refer to "Reconciliation of adjustment items" in Credit Suisse for further information.

Results details

Net revenues

Compared to 1Q22, net revenues of CHF 893 million decreased 33%, reflecting lower net interest income, lower transaction- and performance-based revenues, lower recurring commissions and fees and lower other revenues. Net interest income of CHF 345 million decreased 37%, mainly reflecting lower loan margins on lower average loan volumes, higher costs related to interest rate management, higher funding costs due to significant deposit outflows and lower funding benefits. These results were partially offset by the impact of higher deposit margins despite significantly lower average deposit volumes. Transaction- and performance-based revenues of CHF 206 million decreased 43%, mainly driven by lower client activity and lower corporate advisory fees. Recurring commissions and fees of CHF 342 million decreased 17%, adversely impacted by lower average assets under management, and mainly reflected in lower discretionary mandate fees, lower investment product fees, lower security account and custody services fees and lower investment advisory fees. Other revenues were zero in 1Q23 compared to other revenues of CHF 20 million in 1Q22, mainly reflecting gains on the sale of real estate of CHF 20 million.

Compared to 4Q22, net revenues decreased 18%, reflecting lower other revenues, lower net interest income and lower recurring commissions and fees, partially offset by higher transaction- and performance-based revenues. Other revenues were zero in 1Q23 compared to other revenues of CHF 114 million in 4Q22, mainly reflecting a gain on the sale of real estate of CHF 122 million. Net interest income decreased 21%, mainly reflecting lower deposit margins on significantly lower average deposit volumes, stable loan margins on lower average loan volumes, higher costs related to interest rate management and higher funding costs due to significant deposit outflows. Recurring commissions and fees decreased 3%, reflecting the impact of lower average assets under management, and mainly driven by lower discretionary mandate fees, lower investment product fees and lower security account and custody services fees and lower investment advisory fees. Transaction- and performance-based revenues increased 9%, mainly driven by higher client activity, partially offset by lower corporate advisory fees.

> Refer to "Outflows in assets under management in 1Q23" in Credit Suisse for further information.

Provision for credit losses

The loan portfolio is comprised of lombard lending, mortgages, ship finance, export finance, aviation and yacht finance and structured lending.

In 1Q23, we recorded a provision for credit losses of CHF 21 million compared to a provision for credit losses of CHF 26 million in 1Q22 and a release of provision for credit losses of CHF 5 million in 4Q22. The provision in 1Q23 was primarily driven by one case in the real estate sector and an increase in non-specific provisions for expected credit losses.

Total operating expenses

Compared to 1Q22, total operating expenses of CHF 2,333 million increased 77%, mainly driven by the goodwill impairment charge of CHF 1,294 million and higher restructuring expenses of CHF 46 million in 1Q23, partially offset by lower general and administrative expenses. General and administrative expenses of CHF 299 million decreased 50%, as 1Q22 included significantly higher litigation expenses and lower allocated corporate function costs and lower professional services fees in 1Q23. Compensation and benefits of CHF 650 million were stable, with higher allocated corporate function costs offset by lower discretionary compensation expenses.

Compared to 4Q22, total operating expenses increased 100%, mainly driven by the goodwill impairment charge, partially offset by lower general and administrative expenses and lower restructuring expenses. General and administrative expenses decreased 29%, primarily driven by lower allocated corporate function costs, lower professional services fees, lower litigation expenses and lower advertising and marketing expenses. Compensation and benefits increased 2%, mainly from higher allocated corporate function costs and higher deferred compensation expenses from prior year awards, partially offset by lower discretionary compensation expenses.

Margins

Our **gross margin** was 66 basis points in 1Q23, a decrease of eight basis points compared to 1Q22, mainly driven by lower net interest income, lower transaction- and performance-based revenues and lower recurring commissions and fees, partially offset by a 25.3% decrease in average assets under management.

Compared to 4Q22, our gross margin was nine basis points lower, mainly reflecting lower other revenues and lower net interest income, partially offset by a 7.2% decrease in average assets under management.

> Refer to "Assets under management" for further information.

Our **net margin** was negative 108 basis points in 1Q23, a decrease of 108 basis points and 103 basis points compared to 1Q22 and 4Q22, respectively. These decreases mainly reflected higher total operating expenses, driven by the goodwill impairment charge in 1Q23, and lower net revenues.

Assets under management

As of the end of 1Q23, assets under management of CHF 502.5 billion were CHF 38.0 billion lower compared to the end of 4Q22, mainly driven by significant net asset outflows, partially offset by favorable market-related movements. Net asset outflows of CHF 47.1 billion were driven by outflows across all regions.

> Refer to "Outflows in assets under management in 1Q23" in Credit Suisse for further information.

Assets under management

	in / end of			% change	
	1Q23	4Q22	1Q22	QoQ	YoY
Assets under management (CHF billion)					
Assets under management	502.5	540.5	707.0	(7.0)	(28.9)
Average assets under management	541.0	583.0	724.4	(7.2)	(25.3)
Assets under management by currency (CHF billion)					
USD	240.1	257.4	344.0	(6.7)	(30.2)
EUR	96.7	106.7	133.4	(9.4)	(27.5)
CHF	58.9	62.2	75.8	(5.3)	(22.3)
Other	106.8	114.2	153.8	(6.5)	(30.6)
Assets under management	502.5	540.5	707.0	(7.0)	(28.9)
Movements in assets under management (CHF billion)					
Net new assets/(net asset outflows)	(47.1)	(92.7)	4.8	–	–
Other effects	9.1	(2.2)	(40.4)	–	–
of which market movements	14.6	12.3	(31.6)	–	–
of which foreign exchange	(2.5)	(13.1)	6.5	–	–
of which other	(3.0)	(1.4)	(15.3)	–	–
Increase/(decrease) in assets under management	(38.0)	(94.9)	(35.6)	–	–
Movements in assets under management (annualized) (%)					
Net new assets/(net asset outflows)	(34.9)	(58.4)	2.6	–	–
Other effects	6.8	(1.3)	(21.8)	–	–
Increase/(decrease) in assets under management (annualized)	(28.1)	(59.7)	(19.2)	–	–
Movements in assets under management (rolling four-quarter average) (%)					
Net new assets/(net asset outflows)	(20.9)	(12.9)	0.1	–	–
Other effects	(8.0)	(14.3)	(6.7)	–	–
Increase/(decrease) in assets under management (rolling four-quarter average)	(28.9)	(27.2)	(6.6)	–	–

Swiss Bank

In 1Q23, we reported income before taxes of CHF 287 million compared to income before taxes of CHF 479 million in 1Q22. Net revenues of CHF 973 million decreased 15% compared to 1Q22, reflecting lower revenues across all major revenue categories.

Results summary

1Q23 results

In 1Q23, income before taxes of CHF 287 million decreased 40% compared to 1Q22. Net revenues of CHF 973 million decreased 15%, reflecting lower revenues across all major revenue categories. Other revenues in 1Q22 included gains on the sale of real estate of CHF 84 million. Provision for credit losses was CHF 40 million compared to CHF 23 million in 1Q22. Total operating expenses of CHF 646 million were stable, mainly reflecting higher restructuring expenses, offset by lower general and administrative expenses.

Compared to 4Q22, income before taxes decreased 6%. Net revenues decreased 4%, primarily reflecting lower other revenues and lower net interest income. Other revenues in 4Q22 included gains on the sale of real estate of CHF 51 million, partially offset by a loss on the equity investment in SIX Swiss Exchange (SIX) of CHF 10 million. Provision for credit losses was CHF 40 million compared to CHF 28 million in 4Q22. Total operating expenses decreased 5%, mainly reflecting lower general and administrative expenses, partially offset by higher restructuring expenses.

Capital and leverage metrics

As of the end of 1Q23, we reported RWA of CHF 70.4 billion, CHF 0.8 billion higher compared to the end of 4Q22, mainly related to internal model and parameter updates in credit risk, mainly due to model updates for income producing real estate, partially offset by a negative foreign exchange impact. Leverage exposure of CHF 231.5 billion increased CHF 10.7 billion compared to the end of 4Q22, primarily reflecting higher HQLA, reflecting an increase in cash held at central banks.

Divisional results

	in / end of			% change	
	1Q23	4Q22	1Q22	QoQ	YoY
Statements of operations (CHF million)					
Net revenues	973	1,016	1,144	(4)	(15)
Provision for credit losses	40	28	23	43	74
Compensation and benefits	413	408	410	1	1
General and administrative expenses	178	227	197	(22)	(10)
Commission expenses	28	34	34	(18)	(18)
Restructuring expenses	27	13	1	108	–
Total other operating expenses	233	274	232	(15)	0
Total operating expenses	646	682	642	(5)	1
Income before taxes	287	306	479	(6)	(40)
Statement of operations metrics					
Return on regulatory capital (%)	9.0	9.5	14.4	–	–
Cost/income ratio (%)	66.4	67.1	56.1	–	–

Divisional results (continued)

	in / end of			% change	
	1Q23	4Q22	1Q22	QoQ	YoY
Net revenue detail (CHF million)					
Net interest income	514	523	576	(2)	(11)
Recurring commissions and fees	308	300	336	3	(8)
Transaction-based revenues	151	157	171	(4)	(12)
Other revenues	0	36	61	(100)	(100)
Net revenues	973	1,016	1,144	(4)	(15)
Balance sheet statistics (CHF million)					
Total assets	208,828	197,627	223,087	6	(6)
Net loans	157,273	158,149	162,749	(1)	(3)
Risk-weighted assets	70,420	69,646	71,029	1	(1)
Leverage exposure	231,497	220,792	248,559	5	(7)
Margins on assets under management (annualized) (bp)					
Gross margin ¹	73	77	78	-	-
Net margin ²	21	23	33	-	-
Number of relationship managers					
Number of relationship managers	1,660	1,670	1,680	(1)	(1)

Net interest income includes a term spread credit on stable deposit funding and a term spread charge on loans. Recurring commissions and fees includes investment product management, discretionary mandate and other asset management-related fees, fees for general banking products and services and revenues from wealth structuring solutions. Transaction-based revenues arise primarily from brokerage fees, fees from foreign exchange client transactions, trading and sales income, equity participations income and other transaction-based income. Other revenues include fair value gains/(losses) on synthetic securitized loan portfolios and other gains and losses.

¹ Net revenues divided by average assets under management.

² Income before taxes divided by average assets under management.

Reconciliation of adjustment items

in	Swiss Bank		
	1Q23	4Q22	1Q22
Results (CHF million)			
Net revenues	973	1,016	1,144
Real estate (gains)/losses	(1)	(51)	(84)
(Gain)/loss on equity investment in SIX Group AG	0	10	(3)
Adjusted net revenues	972	975	1,057
Provision for credit losses	40	28	23
Total operating expenses	646	682	642
Restructuring expenses	(27)	(13)	(1)
Adjusted total operating expenses	619	669	641
Income before taxes	287	306	479
Adjusted income before taxes	313	278	393
Adjusted return on regulatory capital (%)	9.9	8.6	11.8

Adjusted results are non-GAAP financial measures. Refer to "Reconciliation of adjustment items" in Credit Suisse for further information.

Results details

Net revenues

Compared to 1Q22, net revenues of CHF 973 million decreased 15%, reflecting lower revenues across all major revenue categories. Net interest income of CHF 514 million decreased 11%, primarily driven by lower treasury revenues, mainly reflecting the absence of Swiss National Bank (SNB) threshold benefits following the SNB increase of interest rates, and lower loan margins on slightly lower average loan volumes, partially offset by higher deposit margins on lower average deposit volumes. Other revenues in 1Q22 included the gains on the sale of real estate. Recurring commissions and fees of CHF 308 million decreased 8%, mainly driven by lower discretionary mandate management fees, lower security account and custody services fees as well as lower banking services fees. Transaction-based revenues of CHF 151 million decreased 12%, mainly reflecting lower client activity as well as lower revenues from our Swiss investment banking business.

Compared to 4Q22, net revenues decreased 4%, primarily reflecting lower other revenues and lower net interest income. Other revenues in 4Q22 included the gains on the sale of real estate, partially offset by the loss on the equity investment in SIX. Net interest income decreased 2%, mainly driven by a negative impact from other banking book positions and lower loan margins on slightly lower average loan volumes, partially offset by higher deposit margins on lower average deposit volumes and higher treasury revenues. Transaction-based revenues decreased 4%, mainly reflecting lower revenues from our Swiss investment banking business, partially offset by higher brokerage and product issuing fees. Recurring commissions and fees increased 3%, primarily reflecting higher fees from lending activities.

Provision for credit losses

The loan portfolio is substantially comprised of residential mortgages in Switzerland, loans secured by real estate, securities and other financial collateral as well as unsecured loans to commercial clients and, to a lesser extent, consumer finance loans.

In 1Q23, we recorded provision for credit losses of CHF 40 million compared to CHF 23 million in 1Q22 and CHF 28 million in 4Q22. The provisions in 1Q23 mainly included specific provisions reflecting several individual cases across various industries and non-specific provisions for credit losses of CHF 19 million.

Total operating expenses

Compared to 1Q22, total operating expenses of CHF 646 million were stable, mainly reflecting higher restructuring expenses, offset by lower general and administrative expenses. In 1Q23, we incurred restructuring expenses of CHF 27 million. Compensation and benefits of CHF 413 million were stable, mainly reflecting higher deferred compensation expenses from prior-year awards, higher salary expenses as well as higher social security expenses, offset by lower discretionary compensation expenses. General and administrative expenses of CHF 178 million decreased 10%, primarily reflecting lower allocated corporate function costs.

Compared to 4Q22, total operating expenses decreased 5%, mainly reflecting lower general and administrative expenses, partially offset by higher restructuring expenses. General and administrative expenses decreased 22%, mainly reflecting lower allocated corporate function costs as well as lower advertising and marketing expenses. Compensation and benefits were stable, mainly reflecting higher social security expenses, higher deferred compensation expenses from prior-year awards as well as higher allocated corporate function costs, offset by lower discretionary compensation expenses and lower pension expenses.

Margins

Our **gross margin** was 73 basis points in 1Q23, a decrease of five basis points compared to 1Q22, reflecting lower revenues across all major revenue categories, partially offset by a 9.2% decrease in average assets under management. Compared to 4Q22, our gross margin was four basis points lower, mainly driven by lower other revenues and lower net interest income with stable average assets under management.

> Refer to "Assets under management" for further information.

Our **net margin** was 21 basis points in 1Q23, a decrease of twelve basis points compared to 1Q22, mainly driven by lower net revenues, partially offset by the lower average assets under management. Compared to 4Q22, our net margin was two basis points lower, driven by lower net revenues on stable average assets under management, partially offset by lower total operating expenses.

Assets under management

As of the end of **1Q23**, assets under management of CHF 526.6 billion were stable compared to the end of 4Q22, mainly reflecting favorable market movements, offset by net asset outflows. Net asset outflows of CHF 6.9 billion mainly reflected outflows in our private clients business.

> Refer to "Outflows in assets under management in 1Q23" in Credit Suisse for further information.

Assets under management

	in / end of			% change	
	1Q23	4Q22	1Q22	QoQ	YoY
Assets under management (CHF billion)					
Assets under management	526.6	525.8	582.5	0.2	(9.6)
Average assets under management	534.1	531.0	588.1	0.6	(9.2)
Assets under management by currency (CHF billion)					
USD	53.3	53.5	61.1	(0.4)	(12.8)
EUR	22.4	22.0	25.4	1.8	(11.8)
CHF	443.9	443.1	487.6	0.2	(9.0)
Other	7.0	7.2	8.4	(2.8)	(16.7)
Assets under management	526.6	525.8	582.5	0.2	(9.6)
Movements in assets under management (CHF billion)					
Net new assets/(net asset outflows)	(6.9)	(8.3)	6.0	–	–
Other effects	7.7	7.0	(21.4)	–	–
of which market movements	9.5	9.6	(22.9)	–	–
of which foreign exchange	(0.6)	(2.4)	0.1	–	–
of which other	(1.2)	(0.2)	1.4	–	–
Increase/(decrease) in assets under management	0.8	(1.3)	(15.4)	–	–
Movements in assets under management (annualized) (%)					
Net new assets/(net asset outflows)	(5.2)	(6.3)	4.0	–	–
Other effects	5.8	5.3	(14.3)	–	–
Increase/(decrease) in assets under management (annualized)	0.6	(1.0)	(10.3)	–	–
Movements in assets under management (rolling four-quarter average) (%)					
Net new assets/(net asset outflows)	(3.1)	(0.9)	1.4	–	–
Other effects	(6.5)	(11.2)	0.6	–	–
Increase/(decrease) in assets under management (rolling four-quarter average)	(9.6)	(12.1)	2.0	–	–

Asset Management

In 1Q23, we reported a loss before taxes of CHF 31 million and net revenues of CHF 187 million. Net revenues decreased 45% and 28% compared to 1Q22 and 4Q22, respectively.

Results summary

1Q23 results

In 1Q23, we reported a loss before taxes of CHF 31 million, compared to income before taxes of CHF 57 million in 1Q22, reflecting reduced net revenues. Net revenues of CHF 187 million decreased 45% compared to 1Q22, driven mainly by decreased investment and partnership income and reduced management fees. Total operating expenses of CHF 218 million decreased 23% compared to 1Q22, primarily driven by lower general and administrative expenses and lower compensation and benefits.

Our 1Q23 loss before taxes of CHF 31 million compared to a loss of CHF 28 million in 4Q22, reflecting lower net revenues, partially offset by lower total operating expenses. Net revenues decreased 28%, driven by decreased investment and partnership income, partially offset by higher performance and transaction revenues. Total operating expenses decreased 24%, mainly reflecting lower general and administration expenses and reduced compensation and benefits.

Capital and leverage metrics

As of the end of 1Q23, RWA of CHF 8.1 billion were stable compared to the end of 4Q22. Leverage exposure of CHF 2.3 billion decreased CHF 0.2 billion compared to the end of 4Q22.

Divisional results

	1Q23	4Q22	in / end of 1Q22	QoQ	% change YoY
Statements of operations (CHF million)					
Net revenues	187	261	339	(28)	(45)
Provision for credit losses	0	1	0	(100)	–
Compensation and benefits	128	142	143	(10)	(10)
General and administrative expenses	66	111	111	(41)	(41)
Commission expenses	20	23	28	(13)	(29)
Restructuring expenses	4	12	0	(67)	–
Total other operating expenses	90	146	139	(38)	(35)
Total operating expenses	218	288	282	(24)	(23)
Income/(loss) before taxes	(31)	(28)	57	11	–
Statement of operations metrics					
Return on regulatory capital (%)	(15.5)	(13.3)	27.6	–	–
Cost/income ratio (%)	116.6	110.3	83.2	–	–

Divisional results (continued)

	in / end of			% change	
	1Q23	4Q22	1Q22	QoQ	YoY
Net revenue detail (CHF million)					
Management fees	234	233	271	0	(14)
Performance and transaction revenues	27	3	25	–	8
Investment and partnership income	(74)	25	43	–	–
Net revenues	187	261	339	(28)	(45)
of which recurring commissions and fees	234	233	272	0	(14)
of which transaction- and performance-based revenues	33	35	58	(6)	(43)
of which other revenues	(80)	(7)	9	–	–
Balance sheet statistics (CHF million)					
Total assets	3,124	3,382	3,678	(8)	(15)
Risk-weighted assets	8,054	8,408	8,206	(4)	(2)
Leverage exposure	2,259	2,508	2,812	(10)	(20)

Management fees include fees on assets under management and asset administration revenues. Performance revenues relate to the performance or return of the funds being managed and includes investment-related gains and losses from proprietary funds. Transaction fees relate to the acquisition and disposal of investments in the funds being managed. Investment and partnership income includes equity participation income from seed capital returns and from minority investments in third-party asset managers, income from strategic partnerships and distribution agreements and other revenues.

Reconciliation of adjustment items

in	Asset Management		
	1Q23	4Q22	1Q22
Results (CHF million)			
Net revenues	187	261	339
Real estate (gains)/losses	0	0	(1)
Adjusted net revenues	187	261	338
Provision for credit losses	0	1	0
Total operating expenses	218	288	282
Restructuring expenses	(4)	(12)	–
Adjusted total operating expenses	214	276	282
Income/(loss) before taxes	(31)	(28)	57
Adjusted income/(loss) before taxes	(27)	(16)	56
Adjusted return on regulatory capital (%)	(13.8)	(7.4)	27.0

Adjusted results are non-GAAP financial measures. Refer to "Reconciliation of adjustment items" in Credit Suisse for further information.

Results detail

Net revenues

Compared to 1Q22, net revenues of CHF 187 million decreased 45%, reflecting decreased investment and partnership income and reduced management fees, partially offset by higher performance and transaction revenues. The decrease in investment and partnership income was mainly due to a currency translation adjustment and impairment on the planned partial disposal of an investment. Management fees of CHF 234 million decreased 14%, reflecting a combination of lower average assets under management and increased investor bias towards passive products. Performance and transaction revenues of CHF 27 million increased 8%, mainly driven by investment-related gains.

Compared to 4Q22, net revenues decreased 28%, driven by decreased investment and partnership income, partially offset by higher performance and transaction revenues. The decrease in investment and partnership income was mainly due to a currency translation adjustment and impairment on the planned partial disposal of an investment. Performance and transaction revenues increased by CHF 24 million, mainly driven by higher investment-related gains. Management fees were stable.

Total operating expenses

Compared to 1Q22, total operating expenses of CHF 218 million decreased 23%, mainly reflecting lower general and administrative expenses and reduced compensation and benefits. General and administrative expenses of CHF 66 million decreased 41%, mainly reflecting reduced professional services fees related to the wind down and administration of the SCFF. Compensation and benefits of CHF 128 million decreased 10%, mainly reflecting lower discretionary compensation expenses. In 1Q23, we incurred restructuring expenses of CHF 4 million.

Compared to 4Q22, total operating expenses decreased 24%, mainly reflecting lower general and administrative expenses and reduced compensation and benefits. General and administrative expenses decreased 41%, mainly reflecting lower allocated corporate function costs and reduced professional services fees related to the wind down and administration of the SCFF. Compensation and benefits decreased 10%, mainly reflecting lower discretionary compensation expenses.

Assets under management

As of the end of 1Q23, assets under management of CHF 399.4 billion were CHF 3.0 billion lower compared to the end of 4Q22, mainly reflecting net asset outflows, partially offset by favorable market movements. Net asset outflows of CHF 11.6 billion were driven by outflows from traditional investments, in particular fixed income and index solutions, and from alternative investments, primarily related to outflows in credit.

> Refer to "Outflows in assets under management in 1Q23" in Credit Suisse for further information.

Assets under management

	1Q23	4Q22	in / end of 1Q22	QoQ	% change YoY
Assets under management (CHF billion)					
Traditional investments	241.6	244.4	291.5	(1.1)	(17.1)
Alternative investments	110.9	110.2	116.9	0.6	(5.1)
Investments and partnerships	46.9	47.8	53.6	(1.9)	(12.5)
Assets under management	399.4	402.4	462.0	(0.7)	(13.5)
Average assets under management	409.3	413.9	467.8	(1.1)	(12.5)
Assets under management by currency (CHF billion)					
USD	90.5	94.8	114.0	(4.5)	(20.6)
EUR	39.5	41.4	52.9	(4.6)	(25.3)
CHF	216.2	212.0	234.7	2.0	(7.9)
Other	53.2	54.2	60.4	(1.8)	(11.9)
Assets under management	399.4	402.4	462.0	(0.7)	(13.5)
Movements in assets under management (CHF billion)					
Net new assets/(net asset outflows) ¹	(11.6)	(11.7)	(0.6)	–	–
Other effects	8.6	2.8	(14.2)	–	–
of which market movements	9.6	10.1	(15.0)	–	–
of which foreign exchange	(1.0)	(6.2)	1.7	–	–
of which other	0.0	(1.1)	(0.9)	–	–
Increase/(decrease) in assets under management	(3.0)	(8.9)	(14.8)	–	–
Movements in assets under management (annualized) (%)					
Net new assets/(net asset outflows)	(11.5)	(11.4)	(0.5)	–	–
Other effects	8.5	2.7	(11.9)	–	–
Increase/(decrease) in assets under management (annualized)	(3.0)	(8.7)	(12.4)	–	–
Movements in assets under management (rolling four-quarter average) (%)					
Net new assets/(net asset outflows)	(7.3)	(4.7)	0.8	–	–
Other effects	(6.2)	(10.9)	0.1	–	–
Increase/(decrease) in assets under management (rolling four-quarter average)	(13.5)	(15.6)	0.9	–	–

¹ Includes outflows for private equity assets reflecting realizations at cost and unfunded commitments on which a fee is no longer earned.

Investment Bank

In 1Q23, we reported a loss before taxes of CHF 448 million compared to income before taxes of CHF 162 million in 1Q22. Net revenues of CHF 1,017 million decreased 37% compared to 1Q22, reflecting continued challenging market conditions. Performance was impacted by weak client activity in light of previously disclosed issues affecting Credit Suisse.

Results summary

1Q23 results

In 1Q23, we reported a loss before taxes of CHF 448 million compared to income before taxes of CHF 162 million in 1Q22. Net revenues of CHF 1,017 million decreased 37% compared to 1Q22, mainly driven by low client activity and less favorable conditions, particularly in our equity sales and trading, capital markets and advisory franchises. These declines were partially offset by gains of CHF 236 million (USD 257 million) on increased buyback activity principally in our structured notes portfolio across equities and fixed income at prices reflecting significantly wider own credit spreads. In 1Q23, we recorded provision for credit losses of CHF 18 million compared to a release of CHF 3 million in 1Q22. Total operating expenses of CHF 1,447 million were stable compared to 1Q22, reflecting reduced compensation and benefits and lower general and administrative expenses, offset by increased restructuring expenses and a goodwill impairment charge. In light of our strategic actions, total operating expenses included CHF 106 million of restructuring expenses in 1Q23. Adjusted total operating expenses decreased 9% compared to 1Q22.

In 1Q23, we reported a loss before taxes of CHF 448 million compared to a loss of CHF 775 million in 4Q22. Net revenues increased 64% compared to low levels in 4Q22 and included gains on the buyback activity principally in our structured notes portfolio. We recorded a provision for credit losses of CHF 18 million compared to a provision of CHF 2 million in 4Q22. Total operating expenses increased 4%, mainly due to higher compensation and benefits, partially offset by lower restructuring expenses and lower general and administrative expenses. Adjusted total operating expenses increased 8% compared to 4Q22.

Divisional results

	in / end of			% change	
	1Q23	4Q22	1Q22	QoQ	YoY
Statements of operations (CHF million)					
Net revenues	1,017	621	1,609	64	(37)
Provision for credit losses	18	2	(3)	–	–
Compensation and benefits	789	658	868	20	(9)
General and administrative expenses	432	490	466	(12)	(7)
Commission expenses	90	81	112	11	(20)
Goodwill impairment	30	0	0	–	–
Restructuring expenses	106	165	4	(36)	–
Total other operating expenses	658	736	582	(11)	13
Total operating expenses	1,447	1,394	1,450	4	0
Income/(loss) before taxes	(448)	(775)	162	(42)	–
Statement of operations metrics					
Return on regulatory capital (%)	(25.3)	(37.7)	6.9	–	–
Cost/income ratio (%)	142.3	224.5	90.1	–	–

Capital and leverage metrics

As of the end of 1Q23, RWA of USD 43.4 billion increased USD 0.6 billion compared to the end of 4Q22, mainly driven by an increase in movements in risk levels in operational risk, primarily reflecting a reduction in operational risk insurance, partially offset by a decrease in movements in risk levels in market risk, including reduced rates exposure. Leverage exposure of USD 129.4 billion decreased USD 10.3 billion compared to the end of 4Q22, largely driven by timing on settlement of US treasury auctions, partially offset by reduced collateral utilization.

Divisional results (continued)

	in / end of			% change	
	1Q23	4Q22	1Q22	QoQ	YoY
Net revenue detail (CHF million)					
Fixed income sales and trading	278	198	293	40	(5)
Equity sales and trading	420	70	658	500	(36)
Capital markets	241	171	439	41	(45)
Advisory and other fees	77	183	208	(58)	(63)
Other revenues ¹	1	(1)	11	–	(91)
Net revenues	1,017	621	1,609	64	(37)
Balance sheet statistics (CHF million)					
Total assets	64,025	74,932	135,892	(15)	(53)
Net loans	7,574	7,357	7,580	3	0
Risk-weighted assets	39,631	39,647	43,417	0	(9)
Risk-weighted assets (USD)	43,439	42,865	47,058	1	(8)
Leverage exposure	118,037	129,190	195,704	(9)	(40)
Leverage exposure (USD)	129,377	139,676	212,117	(7)	(39)

¹ Other revenues include treasury funding costs and changes in the carrying value of certain investments.

Reconciliation of adjustment items

in	Investment Bank		
	1Q23	4Q22	1Q22
Results (CHF million)			
Net revenues	1,017	621	1,609
Real estate (gains)/losses	0	0	(50)
Adjusted net revenues	1,017	621	1,559
Provision for credit losses	18	2	(3)
Total operating expenses	1,447	1,394	1,450
Goodwill impairment	(30)	0	0
Restructuring expenses	(106)	(165)	(4)
Major litigation provisions	0	(12)	0
Expenses related to real estate disposals	(2)	0	(2)
Adjusted total operating expenses	1,309	1,217	1,444
Income/(loss) before taxes	(448)	(775)	162
Adjusted income/(loss) before taxes	(310)	(598)	118
Adjusted return on regulatory capital (%)	(17.5)	(29.0)	5.0

Adjusted results are non-GAAP financial measures. Refer to "Reconciliation of adjustment items" in Credit Suisse for further information.

Results details

Fixed income sales and trading

In 1Q23, fixed income revenues of CHF 278 million decreased 5% compared to 1Q22, as low client activity across most businesses was partially offset by constructive market conditions in global credit products and rates. We had lower revenues in our foreign exchange and credit investor products franchises, mainly due to less favorable trading conditions. These decreases were partially offset by higher revenues in global credit products, mainly driven by a significant increase in investment grade trading revenues due to heightened volatility. Revenues in our rates franchise increased, driven by strong interest rate volatility coupled with gains on the buyback activity principally in our structured notes portfolio.

Compared to 4Q22, fixed income revenues increased 40%, reflecting improved performance across most products, albeit from low levels. We had higher revenues in credit investor products compared to a weak 4Q22 performance, driven by increased client activity and higher new issuance volumes. Revenues in global credit products increased significantly, mainly driven by a substantial increase in investment grade trading revenues. We also had higher revenues in our foreign exchange franchise. We saw lower revenues in our rates franchise compared to a strong 4Q22 performance despite gains on the buyback activity principally in our structured notes portfolio.

Equity sales and trading

In 1Q23, equity sales and trading revenues of CHF 420 million decreased 36% compared to a strong 1Q22, which benefitted from more favorable market conditions, including high levels of volatility, which led to strong trading volumes. Equity derivatives revenues decreased significantly compared to a strong 1Q22 mainly reflecting lower results in flow derivatives and structured equity derivatives, despite significant gains on the buyback activity principally in our structured notes portfolio. Cash equities revenues declined, consistent with the lower trading volumes across regions.

Compared to 4Q22, equity sales and trading revenues increased significantly from very low levels. The increase was primarily driven by higher equity derivatives revenues, particularly in our structured equity derivatives franchise, which was significantly impacted by gains on the buyback activity principally in our structured notes portfolio. In 4Q22, structured equity derivatives were significantly adversely impacted by low client activity, including as a result of the Group's credit rating downgrades in the quarter. Cash equities revenues declined due to lower revenues in EMEA and the Americas.

Capital markets

In 1Q23, capital markets revenues of CHF 241 million decreased 45% compared to 1Q22, reflecting significantly lower street fees across products, challenging market conditions and lower market share, partially offset by a recovery on unrealized mark-to-market losses in our leveraged finance underwriting portfolio. Debt capital markets revenues decreased, reflecting reduced issuance activity, particularly in leveraged finance. In addition, equity capital markets revenues decreased significantly, reflecting continued subdued street fees and lower market share.

Compared to 4Q22, capital markets revenues increased 41%, driven by significantly higher debt capital markets revenues reflecting the recovery on unrealized mark-to-market losses in our leveraged finance underwriting portfolio. This was partially offset by lower revenues in equity capital markets due to a prolonged downturn in issuance activity.

Advisory and other fees

In 1Q23, advisory revenues of CHF 77 million decreased 63%, reflecting reduced industry-wide activity and lower market share.

Compared to 4Q22, advisory revenues decreased 58%, reflecting reduced industry-wide activity and lower market share.

Provision for credit losses

In 1Q23, we recorded provision for credit losses of CHF 18 million compared to a release of CHF 3 million in 1Q22 and provision for credit losses of CHF 2 million in 4Q22. Provision for credit losses in 1Q23 mainly included higher non-specific provisions for expected credit losses.

Total operating expenses

In 1Q23, total operating expenses of CHF 1,447 million were stable compared to 1Q22, reflecting reduced compensation and benefits and lower general and administrative expenses, offset by increased restructuring expenses and a goodwill impairment charge. Compensation and benefits of CHF 789 million decreased 9%, reflecting lower discretionary compensation expenses and reduced deferred compensation expenses from prior year awards, partially offset by higher salary expenses reflecting the impact of deferred fixed cash compensation granted to certain employees in 2Q22. General and administrative expenses of CHF 432 million decreased 7%, mainly reflecting lower consulting expenses. In 1Q23, we incurred restructuring expenses of CHF 106 million, which included an impairment of internally developed software costs, compared to CHF 4 million in 1Q22. Adjusted total operating expenses decreased 9% compared to 1Q22.

Compared to 4Q22, total operating expenses increased 4%, mainly due to higher compensation and benefits, partially offset by lower restructuring expenses and lower general and administrative expenses. Compensation and benefits increased 20%, as 4Q22 mainly reflecting the acceleration of deferred compensation expenses due to the cancellation of outstanding deferred compensation awards. In 1Q23, we incurred restructuring expenses of CHF 106 million compared to CHF 165 million in 4Q22. General and administrative expenses decreased 12%, reflecting reduced allocated corporate function costs and consulting expenses. Adjusted total operating expenses increased 8% compared to 4Q22.

Investment banking & capital markets fees

In order to reflect the performance and capabilities of the capital markets and advisory business and for enhanced comparability versus peers, the table below shows advisory, debt capital markets and equity capital markets fees in US dollar terms. Fees are defined as gross revenues generated from advisory and capital markets activity as well as derivatives in connection with such activity, before allocated funding costs, and excludes mark-to-market movements in debt underwriting, including leveraged finance.

	1Q23	4Q22	in 1Q22	QoQ	% change YoY
Investment banking & capital markets fees (USD million)					
Advisory	98	187	228	(48)	(57)
Debt capital markets ¹	162	169	347	(4)	(53)
Equity capital markets	56	100	117	(44)	(52)
Investment banking & capital markets fees	316	456	692	(31)	(54)

¹ Excludes mark-to-market movements of USD 80 million in 1Q23, USD (50) million in 4Q22 and USD (2) million 1Q22.

Corporate Center

In 1Q23, we reported income before taxes of CHF 14,816 million compared to losses of CHF 730 million in 1Q22 and income before taxes of CHF 113 million in 4Q22.

Corporate Center composition

Corporate Center includes parent company operations such as Group financing, expenses for projects sponsored by the Group, including costs associated with the evolution of our legal entity structure to meet developing and future regulatory requirements, and certain other expenses and revenues that have not been allocated to the segments. Corporate Center results also include legacy funding costs, legacy litigation expenses, a specific client compliance function and noncontrolling interests without significant economic interest. Corporate Center further includes consolidation and elimination adjustments required to eliminate intercompany revenues and expenses.

Treasury results include the impact of volatility in the valuations of certain central funding transactions such as structured notes issuances and swap transactions. Treasury results also include additional interest charges from transfer pricing to align funding costs to assets held in the Corporate Center and legacy funding costs. Other revenues primarily include required elimination adjustments associated with trading in own shares, treasury commissions charged to divisions, the cost of certain hedging transactions executed in connection with the Group's RWA and valuation hedging impacts from long-dated legacy deferred compensation and retirement programs mainly relating to former employees.

Compensation and benefits include fair value adjustments on certain deferred compensation plans not allocated to the segments and fair value adjustments on certain other long-dated legacy deferred compensation and retirement programs mainly relating to former employees.

Results summary

1Q23 results

In 1Q23, we reported income before taxes of CHF 14,816 million compared to losses before taxes of CHF 730 million in 1Q22 and income before taxes of CHF 113 million in 4Q22. Net revenues of CHF 15,052 million in 1Q23 were primarily driven by treasury results, which reflected the additional tier 1 capital notes write-down ordered by FINMA. Total operating expenses of CHF 236 million decreased 54% compared to 1Q22, mainly reflecting lower general and administrative expenses. Compared to 4Q22, total operating expenses increased 146%, primarily driven by higher compensation and benefits.

Corporate Center results

	in / end of			% change	
	1Q23	4Q22	1Q22	QoQ	YoY
Statements of operations (CHF million)					
Treasury results	15,009	212	(255)	–	–
Other	43	(3)	42	–	2
Net revenues	15,052	209	(213)	–	–
Provision for credit losses	0	0	(1)	–	100
Compensation and benefits	116	(10)	41	–	183
General and administrative expenses	96	59	473	63	(80)
Commission expenses	7	(6)	6	–	17
Restructuring expenses	17	53	(2)	(68)	–
Total other operating expenses	120	106	477	13	(75)
Total operating expenses	236	96	518	146	(54)
Income/(loss) before taxes	14,816	113	(730)	–	–
Balance sheet statistics (CHF million)					
Total assets	46,769	24,577	43,345	90	8
Risk-weighted assets	39,277	39,424	42,766	0	(8)
Leverage exposure	48,282	24,275	41,635	99	16

Reconciliation of adjustment items

in	Corporate Center		
	1Q23	4Q22	1Q22
Results (CHF million)			
Net revenues	15,052	209	(213)
Real estate (gains)/losses	0	(18)	0
Additional tier 1 capital notes write-down	(15,007)	0	0
Adjusted net revenues	45	191	(213)
Provision for credit losses	0	0	(1)
Total operating expenses	236	96	518
Restructuring expenses	(17)	(53)	2
Major litigation provisions	(16)	12	(423)
Adjusted total operating expenses	203	55	97
Income/(loss) before taxes	14,816	113	(730)
Adjusted income/(loss) before taxes	(158)	136	(309)

Adjusted results are non-GAAP financial measures. Refer to "Reconciliation of adjustment items" in Credit Suisse for further information.

Capital and leverage metrics

As of the end of 1Q23, RWA of CHF 39.3 billion was stable compared to the end of 4Q22, as increases in movements in risk levels in credit risk, including the usage of liquidity facilities, were offset by the de-risking of our securitized products business in operational risk. Leverage exposure was CHF 48.3 billion as of the end of 1Q23, an increase of CHF 24.0 billion compared to the end of 4Q22, mainly driven by an increase in our centrally held balance of HQLA, reflecting liquidity facilities, and higher business usage.

Results details

Net revenues

In 1Q23, we reported net revenues of CHF 15,052 million compared to negative net revenues of CHF 213 million in 1Q22 and net revenues of CHF 209 million in 4Q22.

Treasury results of CHF 15,009 million in 1Q23 primarily reflected revenues of CHF 14,988 million relating to funding activities, primarily due to the gains from the write-down of the additional tier 1 capital notes. In 1Q22, negative treasury results of CHF 255 million primarily reflected losses of CHF 135 million from fair value option volatility on own debt and volatility arising from hedging of that debt, losses of CHF 50 million with respect to structured notes volatility, losses of CHF 38 million relating to fair-valued money market instruments and losses of CHF 30 million relating to funding activities. In 4Q22, treasury results of CHF 212 million primarily reflected gains of CHF 94 million relating to fair-valued money market instruments, gains of CHF 58 million with respect to structured notes volatility, revenues of CHF 43 million relating to funding activities, as well as net gains of CHF 18 million from fair value option volatility on own debt and volatility arising from hedging of that debt.

Total operating expenses

Total operating expenses of CHF 236 million decreased CHF 282 million compared to 1Q22, mainly reflecting a decrease in general and administrative expenses, partially offset by an increase in compensation and benefits. General and administrative expenses of CHF 96 million decreased CHF 377 million, mainly reflecting lower litigation expenses. 1Q23 included litigation expenses of CHF 30 million and 1Q22 included litigation expenses of CHF 435 million, mainly legacy litigation expenses in connection with mortgage-related matters. In 1Q23, compensation and benefits increased CHF 75 million, mainly driven by higher deferred compensation and expenses from prior-year awards and higher expenses for long-dated deferred compensation and retirement programs. We incurred restructuring expenses of CHF 17 million.

Compared to 4Q22, total operating expenses increased CHF 140 million, mainly reflecting increases in compensation and benefits and general and administrative expenses, partially offset by a decrease in restructuring expenses. Compensation and benefits increased CHF 126 million, mainly driven by higher deferred compensation and expenses from prior-year awards. General and administrative expenses increased CHF 37 million, mainly reflecting expenses in relation to certain projects funded by the Corporate Center.

Capital Release Unit

In 1Q23, we reported a loss before taxes of CHF 399 million compared to a loss before taxes of CHF 394 million in 1Q22. We reduced RWA and leverage exposure by CHF 6.5 billion and CHF 13.8 billion, respectively, compared to 4Q22.

Capital Release Unit composition

As previously announced, as of 1Q23 the Capital Release Unit comprises our Non-Core Unit and the residual of our SPG businesses. The Non-Core Unit includes assets, operating expenses and funding costs associated with the following businesses and activities: the remaining global prime services business, select European lending and capital markets activities, non-Wealth Management-related lending in emerging markets, our global trust business, select trading assets from our Markets business and residual assets transferred from the Asset Resolution Unit. Transfers from the Investment Bank division included corporate bank and emerging markets loans, equity swaps, fixed income trading, rates and foreign exchange, legacy life finance business and minority interest investments.

Results summary

1Q23 results

In 1Q23, we reported a loss before taxes of CHF 399 million compared to a loss before taxes of CHF 394 million in 1Q22. Net revenues of CHF 345 million increased 81%, primarily reflecting a gain from the Apollo transaction of CHF 726 million, partially offset by a loss of revenues from businesses transferred from the Investment Bank, particularly from SPG. Net revenues in 1Q22 included a loss of CHF 353 million on the equity investment in Allfunds Group. Provision for credit losses in 1Q23 was CHF 4 million compared to a release of provision for credit losses of CHF 155 million in 1Q22 which reflected an assessment of the future recoverability of receivables related to Archegos. Total operating expenses of CHF 740 million were stable, as higher restructuring expenses and higher general and administrative expenses were offset by lower compensation and benefits and lower commission expenses.

Our 1Q23 loss before taxes of CHF 399 million compared to a loss before taxes of CHF 866 million in 4Q22. Net revenues increased CHF 486 million, mainly reflecting the gain on the Apollo transaction. Provision for credit losses of CHF 4 million compared to CHF 15 million in 4Q22. Total operating expenses increased 4%, mainly reflecting higher compensation and benefits and higher restructuring expenses, partially offset by lower general and administrative expenses.

Capital Release Unit

	1Q23	4Q22	in / end of 1Q22	QoQ	% change YoY
Statements of operations (CHF million)					
Net revenues	345	(141)	191	–	81
Provision for credit losses	4	15	(155)	(73)	–
Compensation and benefits	302	228	348	32	(13)
General and administrative expenses	321	404	298	(21)	8
Commission expenses	18	34	61	(47)	(70)
Restructuring expenses	99	44	33	125	200
Total other operating expenses	438	482	392	(9)	12
Total operating expenses	740	710	740	4	0
Loss before taxes	(399)	(866)	(394)	(54)	1
Balance sheet statistics (CHF million)					
Total assets	98,074	102,648	171,268	(4)	(43)
Net loans	19,060	18,540	19,633	3	(3)
Risk-weighted assets	39,718	46,174	56,911	(13)	(29)
Risk-weighted assets (USD)	43,533	49,922	61,684	(13)	(29)
Leverage exposure	119,578	133,409	218,497	(9)	(45)
Leverage exposure (USD)	131,066	144,238	236,821	(9)	(45)

Reconciliation of adjustment items

in	Capital Release Unit		
	1Q23	4Q22	1Q22
Adjusted results (CHF million)			
Net revenues	345	(141)	191
Real estate (gains)/losses	0	0	(9)
(Gains)/losses on business sales	(726)	0	0
(Gain)/loss on InvestLab/Allfunds Group	0	75	353
Archegos	0	0	(17)
Adjusted net revenues	(381)	(66)	518
Provision for credit losses	4	15	(155)
Archegos	0	0	155
Adjusted provision for credit losses	4	15	0
Total operating expenses	740	710	740
Restructuring expenses	(99)	(44)	(33)
Major litigation provisions	0	(28)	0
Expenses related to real estate disposals	(1)	0	(1)
Expenses related to equity investment in Allfunds Group	0	(2)	0
Archegos	(6)	(8)	(11)
Adjusted total operating expenses	634	628	695
Loss before taxes	(399)	(866)	(394)
Adjusted loss before taxes	(1,019)	(709)	(177)

Adjusted results are non-GAAP financial measures. Refer to "Reconciliation of adjustment items" in Credit Suisse for further information.

Capital and leverage metrics

As of the end of 1Q23, we reported RWA of CHF 39.7 billion, CHF 6.5 billion lower compared to the end of 4Q22, mainly due to movements in risk levels in credit risk and market risk, reflecting the Apollo transaction, the sale of residual assets and de-risking activities across the Non-Core Unit. Leverage exposure of CHF 119.6 billion decreased CHF 13.8 billion compared to the end of 4Q22. The reductions in leverage exposure related to the Apollo transaction, the sale of residual assets and de-risking activities across the Non-Core Unit, partially offset by an increase in HQLA allocations.

Results details

Net revenues

Compared to 1Q22, net revenues of CHF 345 million increased 81%, primarily reflecting a gain from the Apollo transaction of CHF 726 million, partially offset by a loss of revenues from businesses transferred from the Investment Bank, particularly from SPG. Net revenues in 1Q23 also included losses on the valuation of certain financing arrangements associated with the Apollo transaction. In 1Q22, net revenues included a loss of CHF 353 million on the equity investment in Allfunds Group.

Compared to 4Q22, net revenues increased CHF 486 million, mainly reflecting higher net revenues from the gain on the Apollo transaction. In 4Q22, negative net revenues primarily reflected a combination of lower trading revenues observed after the strategy announcement and costs incurred to de-leverage the portfolio in response to the Group's significant deposit outflows.

Provision for credit losses

In 1Q23, we recorded provision for credit losses of CHF 4 million compared to a release of provision for credit losses of CHF 155 million in 1Q22 and provision for credit losses of CHF 15 million in 4Q22. The release of provisions in 1Q22 reflected an assessment of the future recoverability of receivables related to Archegos.

Total operating expenses

Compared to 1Q22, total operating expenses of CHF 740 million were stable, as higher restructuring expenses and higher general and administrative expenses were offset by lower compensation and benefits and lower commission expenses. Restructuring expenses of CHF 99 million increased CHF 66 million, mainly reflecting SPG-related expenses. General and administrative expenses of CHF 321 million increased 8%, mainly driven by professional services. Compensation and benefits of CHF 302 million decreased 13%, reflecting lower discretionary compensation expenses and lower salary expenses, primarily relating to the exit of prime services. Commission expenses of CHF 18 million decreased 70%, mainly driven by reduced trading activity, most notably from our prime services business.

Compared to 4Q22, total operating expenses increased 4%, mainly reflecting higher compensation and benefits and higher restructuring expenses, partially offset by lower general and administrative expenses. Compensation and benefits increased 32%, as 4Q22 included lower deferred compensation relating to a downward adjustment to performance share awards as a result of the full year 2022 Investment Bank loss and forfeitures on staff departures. Restructuring expenses increased CHF 55 million, mainly reflecting SPG-related expenses. General and administrative expenses decreased 21%, mainly reflecting lower corporate function allocations and lower litigation expenses.

Assets under management

As of the end of 1Q23, assets under management were CHF 1,252.6 billion, 3.2% lower compared to the end of 4Q22, with net asset outflows of CHF 61.2 billion in 1Q23.

Assets under management, client assets and net new assets

	end of			QoQ	% change YoY
	1Q23	4Q22	1Q22		
Assets under management (CHF billion)					
Wealth Management	502.5	540.5	707.0	(7.0)	(28.9)
Swiss Bank	526.6	525.8	582.5	0.2	(9.6)
Asset Management	399.4	402.4	462.0	(0.7)	(13.5)
Assets managed across businesses ¹	(175.9)	(175.1)	(196.6)	0.5	(10.5)
Assets under management	1,252.6	1,293.6	1,554.9	(3.2)	(19.4)
of which discretionary assets	433.1	440.8	514.0	(1.7)	(15.7)
of which advisory assets	819.5	852.8	1,040.9	(3.9)	(21.3)
Client assets (CHF billion) ²					
Wealth Management	681.8	723.4	942.7	(5.8)	(27.7)
Swiss Bank	613.0	626.8	707.9	(2.2)	(13.4)
Asset Management	399.4	402.4	462.0	(0.7)	(13.5)
Assets managed across businesses	(175.9)	(175.1)	(196.6)	0.5	(10.5)
Client assets	1,518.3	1,577.5	1,916.0	(3.8)	(20.8)

in	1Q23	4Q22	1Q22
Net new assets (CHF billion)			
Wealth Management	(47.1)	(92.7)	4.8
Swiss Bank	(6.9)	(8.3)	6.0
Asset Management ³	(11.6)	(11.7)	(0.6)
Assets managed across businesses ¹	4.4	2.2	(2.3)
Net new assets/(net asset outflows)	(61.2)	(110.5)	7.9

¹ Represents assets managed by Asset Management for the other businesses.

² Client assets is a broader measure than assets under management as it includes transactional accounts and assets under custody (assets held solely for transaction-related or safekeeping/custody purposes) and assets of corporate clients and public institutions used primarily for cash management or transaction-related purposes.

³ Includes outflows for private equity assets reflecting realizations at cost and unfunded commitments on which a fee is no longer earned.

Results summary

In 1Q23, Credit Suisse experienced significant net outflows of assets under management.

> Refer to "Outflows in assets under management in 1Q23" in Credit Suisse for further information.

> Refer to "Wealth Management", "Swiss Bank" and "Asset Management" for further information.

1Q23 results

As of the end of 1Q23, assets under management of CHF 1,252.6 billion decreased CHF 41.0 billion compared to the end of 4Q22. The decrease was mainly driven by net asset outflows of CHF 61.2 billion, partially offset by favorable market movements of CHF 28.4 billion.

Net asset outflows of CHF 61.2 billion in 1Q23 mainly reflected outflows across the following businesses. Net asset outflows of CHF 47.1 billion in Wealth Management were driven by outflows across all regions. Net asset outflows of CHF 11.6 billion in Asset Management were driven by outflows from traditional investments, in particular fixed income and index solutions, and from alternative investments, primarily related to outflows in credit. Net asset outflows of CHF 6.9 billion in Swiss Bank mainly reflected outflows in the private clients business.

Additional financial metrics

Balance sheet

As of the end of 1Q23, total assets of CHF 540.3 billion increased 2% compared to 4Q22, reflecting higher operating activities, partially offset by a foreign exchange translation impact. Excluding the foreign exchange translation impact, total assets increased CHF 12.6 billion, mainly reflecting significant increases in cash and due from banks, including central bank liquidity facilities, partially offset by decreases in trading assets and brokerage receivables.

Litigation

The Group's estimate of the aggregate range of reasonably possible losses that are not covered by existing provisions for certain proceedings for which the Group believes an estimate is possible was zero to CHF 1.2 billion as of the end of 1Q23. Net litigation provisions recorded in 1Q23 were CHF 76 million.

Total shareholders' equity

The Group's total shareholders' equity was CHF 54.1 billion as of the end of 1Q23 compared to CHF 45.1 billion as of the end of 4Q22. Total shareholders' equity was positively impacted by net income attributable to shareholders, partially offset by losses on fair value elected liabilities relating to credit risk and foreign exchange-related movements on cumulative translation adjustments.

Liquidity metrics

Our three-month daily average LCR was 178% as of the end of 1Q23, an increase compared to 144% at the end of 4Q22. The increase in the LCR compared to 4Q22 was driven by a reduction in net cash outflows, partially offset by a small decrease in HQLA. The decrease in net cash outflows primarily resulted from a decrease in cash outflows from unsecured wholesale funding, mainly driven by decreases in non-operational deposits and unsecured debt as well as a decrease in outflows from credit and liquidity facilities mainly provided to other financial institutions. The net HQLA reduction is inclusive of offsetting gross movements driven by the aforementioned deposit outflows and subsequent liquidity assistance.

> Refer to "Credit Suisse and UBS to merge" in Credit Suisse for further information.

The NSFR was 108% as of the end of 1Q23 compared to 117% as of the end of 4Q22. The decrease in the NSFR reflects a decrease in available stable funding mainly attributed to a decrease in our deposits, partially offset by a decrease in required stable funding, primarily related to a decrease in our securities portfolio and our loans portfolio.

> Refer to "Liquidity issues in 1Q23" in Credit Suisse for further information.

Capital metrics

The CET1 ratio was 20.3% as of the end of 1Q23 compared to 14.1% as of the end of 4Q22. The tier 1 ratio was 20.3% as of the end of 1Q23 compared to 20.0% as of the end of 4Q22. The total capital ratio was 20.3% as of the end of 1Q23 compared to 20.0% as of the end of 4Q22.

CET1 capital of CHF 49.4 billion as of the end of 1Q23 increased 40% compared to CHF 35.3 billion as of the end of 4Q22, mainly due to the net income attributable to shareholders, which included the impact of the additional tier 1 capital notes write-down.

Additional tier 1 capital decreased from CHF 14.7 billion as of the end of 4Q22 to CHF 0.0 billion as of the end of 1Q23 due to the additional tier 1 capital notes write-down. Total eligible capital of CHF 49.4 billion as of the end of 1Q23 was stable compared to the end of 4Q22.

RWA of CHF 243.4 billion as of the end of 1Q23 decreased 3% compared to CHF 250.5 billion as of the end of 4Q22, mainly due to movements in risk levels and a negative foreign exchange impact. The movements in risk levels were mainly due reduced secured financing, securitizations and derivatives exposures in credit risk and de-risking of our securitized products portfolio in market risk, primarily in the Capital Release Unit.

BIS capital and leverage metrics

end of	1Q23	4Q22
Capital metrics		
Risk-weighted assets (CHF billion)	243.4	250.5
CET1 ratio (%)	20.3	14.1
Tier 1 ratio (%)	20.3	20.0
Total capital ratio (%)	20.3	20.0

Leverage metrics

Leverage exposure (CHF billion)	653.0	650.6
CET1 leverage ratio (%)	7.6	5.4
Tier 1 leverage ratio (%)	7.6	7.7

Refer to the Appendix for additional information on BIS and Swiss capital and leverage metrics.

Leverage metrics

The BIS tier 1 leverage ratio was 7.6% as of the end of 1Q23, with a BIS CET1 component of 7.6%.

Leverage exposure of CHF 653.0 billion as of the end of 1Q23 was stable compared to CHF 650.6 billion as of the end of 4Q22, as higher HQLA across most divisions, reflecting the liquidity facilities was offset by lower leverage exposure in the Investment Bank, mainly driven by timing on settlement of US treasury auctions, and in the Capital Release Unit, related to the Apollo transaction, the sale of residual assets and de-risking activities across the Non-Core Unit.

Credit Suisse AG – parent company

Information on Credit Suisse AG (Bank parent company)'s capital position and ratios will be available in accordance with our ordinary Pillar 3 reporting requirements in May 2023 and may reflect participation impairments.

Important information

The Group's independent registered public accounting firm has not completed a review of the financial information in this Earnings Release. Any subsequent completion of a review may result in changes to that information. Certain reclassifications have been made to prior periods to conform to the current presentation.

For purposes of this Earnings Release, unless the context otherwise requires, the terms "Credit Suisse", "the Group", "we", "us" and "our" mean Credit Suisse Group AG and its consolidated subsidiaries. The business of Credit Suisse AG, the direct bank subsidiary of the Group, is substantially similar to the Group, and these terms are used to refer to both when the subject is the same or substantially similar. The term "the Bank" is used when referring to Credit Suisse AG and its consolidated subsidiaries.

Information referenced in this Earnings Release, whether via website links or otherwise, is not incorporated into this Earnings Release.

Credit Suisse is subject to the Basel framework, as implemented in Switzerland, as well as Swiss legislation and regulations for systemically important banks (Swiss Requirements) (in each case, subject to certain phase-in periods), which include capital, liquidity, leverage and large exposure requirements and rules for emergency plans designed to maintain systemically relevant functions in the event of threatened insolvency. Credit Suisse adopted the BIS leverage ratio framework, as issued by the Basel Committee on Banking Supervision and implemented in Switzerland by the Swiss Financial Market Supervisory Authority FINMA.

Unless otherwise noted, leverage exposure is based on the BIS leverage ratio framework and consists of period-end balance sheet assets and prescribed regulatory adjustments. The tier 1 leverage ratio and CET1 leverage ratio are calculated as BIS tier 1 capital and CET1 capital, respectively, divided by period-end leverage exposure. Swiss leverage ratios are measured on the same period-end basis as the leverage exposure for the BIS leverage ratio.

We may not achieve all of the expected benefits of our strategic initiatives, such as in relation to the proposed transaction between Credit Suisse and UBS, our intended reshaping of the bank, cost reductions and strengthening and reallocating capital. Factors beyond our control, including but not limited to the market and economic conditions (including macroeconomic and other challenges and uncertainties, for example, resulting from Russia's invasion of Ukraine), the reaction by our clients, employees and others to our proposed initiatives, enhanced risks to our businesses during the contemplated transitions, changes in laws, rules or regulations and other challenges discussed in our public filings, such as reputational harm resulting from prior events or reactions to our strategic initiatives, could limit our ability to achieve some or all of the expected benefits of these initiatives. Our ability to implement our strategy objectives could also be impacted by timing risks, obtaining all required approvals and other factors. See also "Cautionary statement regarding forward-looking information" in Appendix, "Risk factors" in Credit Suisse and "Risk factors" in I – Information on the company in our Annual Report 2022 for further information.

The Group's estimate of the aggregate range of reasonably possible losses that are not covered by existing provisions which is discussed above relates only to those proceedings for which the Group believes an estimate is possible and which are discussed in the litigation note to the Consolidated Financial Statements in the Group's Annual Report on Form 20-F and updated in its quarterly reports. It is inherently difficult to determine whether a loss is probable or even reasonably possible or to estimate the amount of any loss or loss range for many of the Group's legal proceedings. The Group's aggregate litigation provisions include estimates of losses, additional losses or ranges of loss for proceedings for which such losses are probable and can be reasonably estimated. The Group does not believe that it can estimate an aggregate range of reasonably possible losses for certain of its proceedings because of their complexity, the novelty of some of the claims, the early stage of the proceedings, the limited amount of discovery that has occurred and/or other factors. For additional details, see the litigation note to the Consolidated Financial Statements in the Group's Annual Report on Form 20-F and in each of its quarterly Financial Reports.

Investors and others should note that we announce important company information (including quarterly earnings releases and financial reports as well as our annual sustainability report) to the investing public using press releases, US Securities and Exchange Commission (SEC) and Swiss ad hoc filings, our website and public conference calls and webcasts. We also routinely use our Twitter account @creditsuisse (<https://twitter.com/creditsuisse>), our LinkedIn account (<https://www.linkedin.com/company/credit-suisse/>), our Instagram accounts (https://www.instagram.com/creditsuisse_careers/ and https://www.instagram.com/creditsuisse_ch/), our Facebook account (<https://www.facebook.com/creditsuisse/>) and other social media channels as additional means to disclose public information, including to excerpt key messages from our public disclosures, including earnings releases. We may share or retweet such messages through certain of our regional accounts, including through Twitter at @cssschweiz (<https://twitter.com/cssschweiz>) and @csapac (<https://twitter.com/csapac>). Investors and others should take care to consider such abbreviated messages in the context of the disclosures from which they are excerpted. The information we post on these social media accounts is not a part of this Earnings Release.

Credit Suisse Group AG shares are listed on the SIX stock exchange under the ticker symbol CSGN and – in the form of American Depositary Shares, as evidenced by American Depositary Receipts – on the New York Stock Exchange under the ticker symbol CS.

In various tables, use of "–" indicates not meaningful or not applicable.

Appendix

BIS capital metrics – Group

end of	1Q23	4Q22	% change QoQ
Capital and risk-weighted assets (CHF million)			
CET1 capital	49,401	35,290	40
Tier 1 capital	49,401	50,026	(1)
Total eligible capital	49,401	50,026	(1)
Risk-weighted assets	243,431	250,540	(3)
Capital ratios (%)			
CET1 ratio	20.3	14.1	–
Tier 1 ratio	20.3	20.0	–
Total capital ratio	20.3	20.0	–

Eligible capital – Group

end of	1Q23	4Q22	% change QoQ
Eligible capital (CHF million)			
Total shareholders' equity	54,066	45,129	20
Adjustments			
Regulatory adjustments ¹	134	(56)	–
Goodwill ²	(1,559)	(2,871)	(46)
Other intangible assets ²	(37)	(53)	(30)
Deferred tax assets that rely on future profitability	(59)	(141)	(58)
Shortfall of provisions to expected losses	(114)	(120)	(5)
(Gains)/losses due to changes in own credit on fair-valued liabilities	(202)	(4,056)	(95)
Defined benefit pension assets ²	(3,380)	(3,289)	3
Investments in own shares	(347)	(409)	(15)
Other adjustments ³	899	1,156	(22)
Total adjustments	(4,665)	(9,839)	(53)
CET1 capital	49,401	35,290	40
High-trigger capital instruments (7% trigger)	0	10,495	(100)
Low-trigger capital instruments (5.125% trigger)	0	4,241	(100)
Additional tier 1 capital	0	14,736	(100)
Tier 1 capital	49,401	50,026	(1)
Total eligible capital	49,401	50,026	(1)

¹ Includes certain adjustments, such as a cumulative dividend accrual.

² Net of deferred tax liability.

³ Includes reversals of cash flow hedge reserves.

1Q23 Capital movement – Group

CET1 capital (CHF million)

Balance at beginning of period	35,290
Net income/(loss) attributable to shareholders ¹	12,432
Foreign exchange impact ²	(344)
Regulatory adjustment of goodwill and intangible assets, net of deferred tax liability	1,256
Other ³	767
Balance at end of period	49,401

Additional tier 1 capital (CHF million)

Balance at beginning of period	14,736
Foreign exchange impact	145
Write-down of additional tier 1 capital notes	(14,883)
Other	2
Balance at end of period	0

Eligible capital (CHF million)

Balance at end of period	49,401
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1 Includes the write-down of the additional tier 1 capital notes.

2 Includes US GAAP cumulative translation adjustments and the foreign exchange impact on regulatory CET1 adjustments.

3 Includes the net effect of share-based compensation and the regulatory adjustment of own credit on fair-valued financial liabilities.

Risk-weighted assets – Group

end of	Wealth Management	Swiss Bank	Asset Management	Investment Bank	Corporate Center	Capital Release Unit	Group
1Q23 (CHF million)							
Credit risk	31,819	62,981	6,138	23,990	8,422	25,788	159,138
Market risk	178	134	35	4,322	951	5,642	11,262
Operational risk	14,334	7,305	1,881	11,319	29,904	8,288	73,031
Risk-weighted assets	46,331	70,420	8,054	39,631	39,277	39,718	243,431
4Q22 (CHF million)							
Credit risk	32,680	62,189	6,366	24,101	6,187	29,492	161,015
Market risk	248	77	40	5,041	768	8,851	15,025
Operational risk	14,313	7,380	2,002	10,505	32,469	7,831	74,500
Risk-weighted assets	47,241	69,646	8,408	39,647	39,424	46,174	250,540

Risk-weighted asset movement by risk type – Group

1Q23	Wealth Management	Swiss Bank	Asset Management	Investment Bank	Corporate Center	Capital Release Unit	Total
Credit risk (CHF million)							
Balance at beginning of period	32,680	62,189	6,366	24,101	6,187	29,492	161,015
Foreign exchange impact	(185)	(99)	10	(281)	(8)	(313)	(876)
Movements in risk levels	(1,373)	(216)	(238)	336	2,242	(3,467)	(2,716)
Model and parameter updates – internal ¹	316	945	0	(209)	1	144	1,197
Model and parameter updates – external ²	381	162	0	43	0	(68)	518
Balance at end of period	31,819	62,981	6,138	23,990	8,422	25,788	159,138
Market risk (CHF million)							
Balance at beginning of period	248	77	40	5,041	768	8,851	15,025
Foreign exchange impact	(3)	(1)	(1)	(55)	(11)	(81)	(152)
Movements in risk levels	(72)	55	(4)	(689)	191	(3,211)	(3,730)
Model and parameter updates – internal ¹	5	3	0	25	3	83	119
Balance at end of period	178	134	35	4,322	951	5,642	11,262
Operational risk (CHF million)							
Balance at beginning of period	14,313	7,380	2,002	10,505	32,469	7,831	74,500
Foreign exchange impact	(203)	(100)	(27)	(154)	(447)	(109)	(1,040)
Movements in risk levels	216	21	(95)	962	(2,135)	562	(469)
Model and parameter updates – internal ¹	8	4	1	6	17	4	40
Balance at end of period	14,334	7,305	1,881	11,319	29,904	8,288	73,031
Total (CHF million)							
Balance at beginning of period	47,241	69,646	8,408	39,647	39,424	46,174	250,540
Foreign exchange impact	(391)	(200)	(18)	(490)	(466)	(503)	(2,068)
Movements in risk levels	(1,229)	(140)	(337)	609	298	(6,116)	(6,915)
Model and parameter updates – internal ¹	329	952	1	(178)	21	231	1,356
Model and parameter updates – external ²	381	162	0	43	0	(68)	518
Balance at end of period	46,331	70,420	8,054	39,631	39,277	39,718	243,431

¹ Represents movements arising from internally driven updates to models and recalibrations of model parameters specific only to Credit Suisse.

² Represents movements arising from externally mandated updates to models and recalibrations of model parameters specific only to Credit Suisse.

BIS leverage metrics – Group

end of	1Q23	4Q22	% change QoQ
Capital and leverage exposure (CHF million)			
CET1 capital	49,401	35,290	40
Tier 1 capital	49,401	50,026	(1)
Leverage exposure	653,047	650,551	0
Leverage ratios (%)			
CET1 leverage ratio	7.6	5.4	–
Tier 1 leverage ratio	7.6	7.7	–

Swiss capital metrics – Group

end of	1Q23	4Q22	% change QoQ
Swiss capital and risk-weighted assets (CHF million)			
Swiss CET1 capital	49,401	35,290	40
Going concern capital	49,401	50,026	(1)
Gone concern capital	48,486	49,117	(1)
Total loss-absorbing capacity (TLAC)	97,887	99,143	(1)
Swiss risk-weighted assets	243,826	250,963	(3)
Swiss capital ratios (%)			
Swiss CET1 ratio	20.3	14.1	–
Going concern capital ratio	20.3	19.9	–
Gone concern capital ratio	19.9	19.6	–
TLAC ratio	40.1	39.5	–

Rounding differences may occur.

Swiss capital and risk-weighted assets – Group

end of	1Q23	4Q22	% change QoQ
Swiss capital (CHF million)			
CET1 capital – BIS	49,401	35,290	40
Swiss CET1 capital	49,401	35,290	40
Additional tier 1 high-trigger capital instruments	0	10,495	(100)
Grandfathered additional tier 1 low-trigger capital instruments	0	4,241	(100)
Swiss additional tier 1 capital	0	14,736	(100)
Going concern capital	49,401	50,026	(1)
Bail-in debt instruments	48,486	49,117	(1)
Gone concern capital	48,486	49,117	(1)
Total loss-absorbing capacity	97,887	99,143	(1)
Risk-weighted assets (CHF million)			
Risk-weighted assets – BIS	243,431	250,540	(3)
Swiss regulatory adjustments ¹	395	423	(7)
Swiss risk-weighted assets	243,826	250,963	(3)

¹ Primarily includes differences in the credit risk multiplier.

Swiss leverage metrics – Group

end of	1Q23	4Q22	% change QoQ
Swiss capital and leverage exposure (CHF million)			
Swiss CET1 capital	49,401	35,290	40
Going concern capital	49,401	50,026	(1)
Gone concern capital	48,486	49,117	(1)
Total loss-absorbing capacity	97,887	99,143	(1)
Leverage exposure	653,047	650,551	0
Swiss leverage ratios (%)			
Swiss CET1 leverage ratio	7.6	5.4	–
Going concern leverage ratio	7.6	7.7	–
Gone concern leverage ratio	7.4	7.6	–
TLAC leverage ratio	15.0	15.2	–

Rounding differences may occur.

Risk management value-at-risk (VaR)

Risk management VaR measures the Group's risk exposure managed under the market risk framework and generally includes the trading book positions and banking book positions held at fair value.

One-day, 98% risk management VaR

in / end of	Interest rate	Credit spread	Foreign exchange	Commodity	Equity	Diversification benefit ¹	Total
CHF million							
1Q23							
Average	21	24	59	2	75	(148)	33
Minimum	13	20	52	1	65	- ²	28
Maximum	36	31	67	3	90	- ²	42
End of period	20	20	60	2	76	(144)	34
4Q22							
Average	28	34	53	2	56	(126)	47
Minimum	18	30	47	2	49	- ²	38
Maximum	35	37	60	3	68	- ²	54
End of period	28	31	52	2	65	(139)	39
USD million							
1Q23							
Average	23	26	64	2	81	(160)	36
Minimum	14	22	56	1	70	- ²	30
Maximum	39	34	73	3	97	- ²	46
End of period	22	22	65	2	83	(157)	37
4Q22							
Average	29	35	55	2	58	(130)	49
Minimum	18	32	51	2	51	- ²	41
Maximum	38	38	60	3	73	- ²	55
End of period	30	34	56	2	71	(151)	42

Excludes risks associated with counterparty and own credit exposures. Risk management VaR measures the Group's risk exposure managed under the market risk framework and generally includes the trading book positions and banking book positions held at fair value.

¹ Diversification benefit represents the reduction in risk that occurs when combining different, not perfectly correlated risk types in the same portfolio and is measured as the difference between the sum of the individual risk types and the risk calculated on the combined portfolio.

² As the maximum and minimum occur on different days for different risk types, it is not meaningful to calculate a portfolio diversification benefit.

Consolidated statements of operations

in	1Q23	4Q22	1Q22
Consolidated statements of operations (CHF million)			
Interest and dividend income	4,175	4,214	2,234
Interest expense	(3,275)	(2,730)	(775)
Net interest income	900	1,484	1,459
Commissions and fees	1,733	1,893	2,601
Trading revenues	62	(581)	(36)
Other revenues	15,772	264	388
Net revenues	18,467	3,060	4,412
Provision for credit losses	83	41	(110)
Compensation and benefits	2,398	2,062	2,458
General and administrative expenses	1,392	1,710	2,148
Commission expenses	207	210	298
Goodwill impairment	1,324	0	0
Restructuring expenses	299	352	46
Total other operating expenses	3,222	2,272	2,492
Total operating expenses	5,620	4,334	4,950
Income/(loss) before taxes	12,764	(1,315)	(428)
Income tax expense/(benefit)	345	82	(151)
Net income/(loss)	12,419	(1,397)	(277)
Net income/(loss) attributable to noncontrolling interests	(13)	(4)	(4)
Net income/(loss) attributable to shareholders	12,432	(1,393)	(273)
Earnings/(loss) per share (CHF)			
Basic earnings/(loss) per share	3.10	(0.46)	(0.10)
Diluted earnings/(loss) per share	3.08	(0.46)	(0.10)

Consolidated balance sheets

end of	1Q23	4Q22
Assets (CHF million)		
Cash and due from banks	109,054	68,478
Interest-bearing deposits with banks	436	455
Central bank funds sold, securities purchased under resale agreements and securities borrowing transactions	64,321	58,798
Securities received as collateral, at fair value	1,544	2,978
Trading assets, at fair value	47,353	65,461
Investment securities	2,405	1,718
Other investments	5,493	5,518
Net loans	261,424	264,165
Goodwill	1,553	2,903
Other intangible assets	428	458
Brokerage receivables	4,851	13,818
Other assets	41,429	46,608
Total assets	540,291	531,358
Liabilities and equity (CHF million)		
Due to banks	9,929	11,905
Customer deposits	165,968	233,235
Central bank funds purchased, securities sold under repurchase agreements and securities lending transactions	6,371	20,280
Obligation to return securities received as collateral, at fair value	1,544	2,978
Trading liabilities, at fair value	14,998	18,338
Short-term borrowings	117,967	12,414
Long-term debt	151,261	157,235
Brokerage payables	2,682	11,442
Other liabilities	15,318	18,200
Total liabilities	486,038	486,027
Common shares	160	160
Additional paid-in capital	38,802	38,615
Retained earnings	36,059	23,632
Treasury shares, at cost	(348)	(428)
Accumulated other comprehensive income/(loss)	(20,607)	(16,850)
Total shareholders' equity	54,066	45,129
Noncontrolling interests	187	202
Total equity	54,253	45,331
Total liabilities and equity	540,291	531,358

Consolidated statements of changes in equity

	Attributable to shareholders							Non-controlling interests	Total equity
	Common shares	Additional paid-in capital	Retained earnings	Treasury shares, at cost	AOCl	Total shareholders' equity			
1Q23 (CHF million)									
Balance at beginning of period	160	38,615	23,632	(428)	(16,850)	45,129	202	45,331	
Purchase of subsidiary shares from non-controlling interests, not changing ownership ^{1, 2}	–	–	–	–	–	–	(3)	(3)	
Sale of subsidiary shares to noncontrolling interests, not changing ownership ²	–	–	–	–	–	–	5	5	
Net income/(loss)	–	–	12,432	–	–	12,432	(13)	12,419	
Cumulative effect of accounting changes, net of tax	–	–	(5)	–	–	(5)	–	(5)	
Total other comprehensive income/(loss), net of tax	–	–	–	–	(3,757)	(3,757)	(1)	(3,758)	
Sale/(repurchase) of treasury shares	–	(17)	–	14	–	(3)	–	(3)	
Share-based compensation, net of tax	–	204	–	66	–	270	–	270	
Changes in scope of consolidation, net	–	–	–	–	–	–	(3)	(3)	
Balance at end of period	160	38,802	36,059	(348)	(20,607)	54,066	187	54,253	

1 Distributions to owners in funds included the return of original capital invested and any related dividends.

2 Transactions with and without ownership changes related to fund activity were all displayed under "not changing ownership".

Earnings per share

in	1Q23	4Q22	1Q22
Basic net income/(loss) attributable to shareholders (CHF million)			
Net income/(loss) attributable to shareholders for basic earnings per share	12,432	(1,393)	(273)
Available for common shares	12,432	(1,393)	(273)
Diluted net income/(loss) attributable to shareholders (CHF million)			
Net income/(loss) attributable to shareholders for diluted earnings per share	12,432	(1,393)	(273)
Available for common shares	12,432	(1,393)	(273)
Weighted-average shares outstanding (million)			
For basic earnings per share available for common shares	4,011.2	3,039.0	2,785.0
Dilutive share options and warrants	8.8	0.0	0.0
Dilutive share awards	20.0	0.0	0.0
For diluted earnings per share available for common shares ¹	4,040.0	3,039.0 ²	2,785.0 ²
Earnings/(loss) per share available for common shares (CHF)			
Basic earnings/(loss) per share available for common shares	3.10	(0.46)	(0.10)
Diluted earnings/(loss) per share available for common shares	3.08	(0.46)	(0.10)

1 Weighted-average potential common shares related to instruments that were not dilutive for the respective periods (and therefore not included in the diluted earnings per share calculation above) but could potentially dilute earnings per share in the future were 11.1 million, 9.9 million and 14.5 million for 1Q23, 4Q22 and 1Q22, respectively.

2 Due to the net losses in 4Q22 and 1Q22, 7.8 million and 0.8 million, respectively, of weighted-average share options and warrants outstanding and 31.1 million and 64.8 million, respectively, of weighted-average share awards outstanding were excluded from the diluted earnings per share calculation, as the effect would be antidilutive.

Restructuring expenses

in	1Q23	4Q22	1Q22
Restructuring expenses by type (CHF million)			
Compensation and benefits-related expenses	143	229	42
of which severance expenses	73	113	13
of which deferred compensation	70	116	25
General and administrative-related expenses	156	123	4
of which pension expenses	19	25	0
Total restructuring expenses	299	352	46

Cautionary statement regarding forward-looking information

This document contains statements that constitute forward-looking statements. In addition, in the future we, and others on our behalf, may make statements that constitute forward-looking statements. Such forward-looking statements may include, without limitation, statements relating to the following:

- our statements as to the proposed transaction between Credit Suisse and UBS;
- our plans, targets or goals;
- our future economic performance or prospects;
- the potential effect on our future performance of certain contingencies; and
- assumptions underlying any such statements.

Words such as “may,” “could,” “achieves,” “believes,” “anticipates,” “expects,” “intends” and “plans” and similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying such statements. We do not intend to update these forward-looking statements.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that predictions, forecasts, projections and other outcomes described or implied in forward-looking statements will not be achieved. We caution you that a number of important factors could cause results to differ materially from the plans, targets, goals, expectations, estimates and intentions expressed in such forward-looking statements. Additionally, many of these factors are beyond our control. These factors include, but are not limited to:

- the consummation of the proposed transaction between Credit Suisse and UBS, and the timing and implementation thereof;
- the ability to maintain sufficient liquidity and access capital markets;
- market volatility, increases in inflation and interest rate fluctuations or developments affecting interest rate levels;
- the ongoing significant negative consequences, including reputational harm, of the Archegos and supply chain finance funds matters, as well as other recent events, and our ability to successfully resolve these matters;
- the impact of media reports and social media speculation about our business and its performance;
- the extent of outflows of deposits and assets or future net new asset generation across our divisions;
- our ability to improve our risk management procedures and policies and hedging strategies;
- the strength of the global economy in general and the strength of the economies of the countries in which we conduct our operations, in particular, but not limited to, the risk of negative impacts of COVID-19 on the global economy and financial markets, Russia's invasion of Ukraine, the resulting sanctions from the US, EU, UK, Switzerland and other countries and the risk of continued slow economic recovery or downturn in the EU, the US or other developed countries or in emerging markets in 2023 and beyond;
- the emergence of widespread health emergencies, infectious diseases or pandemics, such as COVID-19, and the actions that may be taken by governmental authorities to contain the outbreak or to counter its impact;
- potential risks and uncertainties relating to the severity of impacts from the COVID-19 pandemic, including potential material adverse effects on our business, financial condition and results of operations;
- the direct and indirect impacts of deterioration or slow recovery in residential and commercial real estate markets;
- adverse rating actions by credit rating agencies in respect of us, sovereign issuers, structured credit products or other credit-related exposures;
- the ability to achieve our strategic initiatives, including those related to our targets, ambitions and goals, such as our financial ambitions as well as various goals and commitments to incorporate certain environmental, social and governance considerations into our business strategy, products, services and risk management processes;
- our ability to achieve our announced comprehensive new strategic direction for the Group and significant changes to its structure and organization;
- our ability to successfully implement the divestment of any non-core business;
- the future level of any impairments and write-downs resulting from strategy changes and their implementation;
- the ability of counterparties to meet their obligations to us and the adequacy of our allowance for credit losses;
- the effects of, and changes in, fiscal, monetary, exchange rate, trade and tax policies;
- the effects of currency fluctuations, including the related impact on our business, financial condition and results of operations due to moves in foreign exchange rates;
- geopolitical and diplomatic tensions, instabilities and conflicts, including war, civil unrest, terrorist activity, sanctions or other geopolitical events or escalations of hostilities, such as Russia's invasion of Ukraine;
- political, social and environmental developments, including climate change and evolving ESG-related disclosure standards;
- the ability to appropriately address social, environmental and sustainability concerns that may arise from our business activities;
- the effects of, and the uncertainty arising from, the UK's withdrawal from the EU;
- the possibility of foreign exchange controls, expropriation, nationalization or confiscation of assets in countries in which we conduct our operations;
- operational factors such as systems failure, human error, or the failure to implement procedures properly;
- the risk of cyber attacks, information or security breaches or technology failures on our reputation, business or operations, the risk of which is increased while large portions of our employees work remotely;
- the adverse resolution of litigation, regulatory proceedings and other contingencies;
- actions taken by regulators with respect to our business and practices and possible resulting changes to our business organization, practices and policies in countries in which we conduct our operations;
- the effects of changes in laws, regulations or accounting or tax standards, policies or practices in countries in which we conduct our operations;
- the discontinuation of LIBOR and other interbank offered rates and the transition to alternative reference rates;
- the potential effects of changes in our legal entity structure;
- competition or changes in our competitive position in geographic and business areas in which we conduct our operations;
- the ability to retain and recruit qualified personnel;
- the ability to protect our reputation and promote our brand;
- the ability to increase market share and control expenses;
- technological changes instituted by us, our counterparties or competitors;
- the timely development and acceptance of our new products and services and the perceived overall value of these products and services by users;
- acquisitions, including the ability to integrate acquired businesses successfully, and divestitures, including the ability to sell non-core assets; and
- other unforeseen or unexpected events and our success at managing these and the risks involved in the foregoing.

We caution you that the foregoing list of important factors is not exclusive. When evaluating forward-looking statements, you should carefully consider the foregoing factors and other uncertainties and events, including the information set forth in “Risk factors” in *I – Information on the company* in our Annual Report 2022 and in “Risk factors” in *Credit Suisse* in our 1Q23 Earnings Release.

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

Form 6-K

**REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934**

May 31, 2023

Commission File Number 001-15244

CREDIT SUISSE GROUP AG

(Translation of registrant's name into English)

Paradeplatz 8, 8001 Zurich, Switzerland
(Address of principal executive office)

Commission File Number 001-33434

CREDIT SUISSE AG

(Translation of registrant's name into English)

Paradeplatz 8, 8001 Zurich, Switzerland
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F Form 40-F

This report includes a media release dated May 31, 2023.

Credit Suisse receives Notice of Non-Compliance with NYSE Share Price Listing Rule

Zurich, May 31, 2023 - Credit Suisse Group AG (Credit Suisse) announced today that the New York Stock Exchange (NYSE) notified Credit Suisse on May 1, 2023, that it is no longer in compliance with the NYSE's continued listing minimum price criteria set forth in the NYSE Listed Company Manual, which requires listed companies to maintain an average closing share price of at least \$1.00 over a consecutive 30 trading-day period.

In accordance with NYSE rules, Credit Suisse must disclose receipt of the notice and has six months to regain compliance with the NYSE's continued listing minimum price criteria. Credit Suisse expects that the deficiency will be cured upon completion of the acquisition by UBS Group AG (UBS) of Credit Suisse that was announced on March 19, 2023. Upon consummation of the acquisition, UBS will be the surviving entity. In connection with the acquisition, Credit Suisse's ordinary shares underlying its American Depositary Shares will be exchanged for the right to receive a fraction of a UBS ordinary share and as a result delisted from the NYSE.

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Credit Suisse

Credit Suisse is one of the world's leading financial services providers. The bank's strategy is built on its leading Wealth Management and Swiss Bank franchises, with strong Asset Management as well as Markets capabilities. Credit Suisse seeks to follow a balanced approach to wealth management, aiming to capitalize on both the large pool of wealth within mature markets as well as the significant growth in wealth in Asia Pacific and other emerging markets, while also serving key developed markets with an emphasis on Switzerland. The bank employs more than 45,000 people. The registered shares (CSGN) of Credit Suisse Group AG are listed in Switzerland and, in the form of American Depositary Shares (CS), in New York. Further information about Credit Suisse can be found at www.credit-suisse.com.

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- the ability to maintain sufficient liquidity and access capital markets;
- market volatility, increases in inflation and interest rate fluctuations or developments affecting interest rate levels;
- the ongoing significant negative consequences, including reputational harm, of the Archegos and supply chain finance funds matters, as well as other recent events, and our ability to successfully resolve these matters;
- the impact of media reports and social media speculation about our business and its performance;
- the extent of outflows of deposits and assets or future net new asset generation across our divisions;
- our ability to improve our risk management procedures and policies and hedging strategies;
- the strength of the global economy in general and the strength of the economies of the countries in which we conduct our operations, in particular, but not limited to, the risk of negative impacts of COVID-19 on the global economy and financial markets, Russia’s invasion of Ukraine, the resulting sanctions from the US, EU, UK, Switzerland and other countries and the risk of continued slow economic recovery or downturn in the EU, the US or other developed countries or in emerging markets in 2023 and beyond;
- the emergence of widespread health emergencies, infectious diseases or pandemics, such as COVID-19, and the actions that may be taken by governmental authorities to contain the outbreak or to counter its impact;
- potential risks and uncertainties relating to the severity of impacts from the COVID-19 pandemic, including potential material adverse effects on our business, financial condition and results of operations;
- the direct and indirect impacts of deterioration or slow recovery in residential and commercial real estate markets;
- adverse rating actions by credit rating agencies in respect of us, sovereign issuers, structured credit products or other credit-related exposures;
- the ability to achieve our strategic initiatives, including those related to our targets, ambitions and goals, such as our financial ambitions as well as various goals and commitments to incorporate certain environmental, social and governance considerations into our business strategy, products, services and risk management processes;
- our ability to achieve our announced comprehensive new strategic direction for the Group and significant changes to its structure and organization;
- our ability to successfully implement the divestment of any non-core business;

the future level of any impairments and write-downs resulting from strategy changes and their implementation;

the ability of counterparties to meet their obligations to us and the adequacy of our allowance for credit losses;

the effects of, and changes in, fiscal, monetary, exchange rate, trade and tax policies;

the effects of currency fluctuations, including the related impact on our business, financial condition and results of operations due to moves in foreign exchange rates;

geopolitical and diplomatic tensions, instabilities and conflicts, including war, civil unrest, terrorist activity, sanctions or other geopolitical events or escalations of hostilities, such as Russia's invasion of Ukraine;

political, social and environmental developments, including climate change and evolving ESG-related disclosure standards;

the ability to appropriately address social, environmental and sustainability concerns that may arise from our business activities;

the effects of, and the uncertainty arising from, the UK's withdrawal from the EU;

the possibility of foreign exchange controls, expropriation, nationalization or confiscation of assets in countries in which we conduct our operations;

operational factors such as systems failure, human error, or the failure to implement procedures properly;

the risk of cyber attacks, information or security breaches or technology failures on our reputation, business or operations, the risk of which is increased while large portions of our employees work remotely;

the adverse resolution of litigation, regulatory proceedings and other contingencies;

actions taken by regulators with respect to our business and practices and possible resulting changes to our business organization, practices and policies in countries in which we conduct our operations;

the effects of changes in laws, regulations or accounting or tax standards, policies or practices in countries in which we conduct our operations;

the discontinuation of LIBOR and other interbank offered rates and the transition to alternative reference rates;

the potential effects of changes in our legal entity structure;

competition or changes in our competitive position in geographic and business areas in which we conduct our operations;

the ability to retain and recruit qualified personnel;

the ability to protect our reputation and promote our brand;

the ability to increase market share and control expenses;

technological changes instituted by us, our counterparties or competitors;

the timely development and acceptance of our new products and services and the perceived overall value of these products and services by users;

acquisitions, including the ability to integrate acquired businesses successfully, and divestitures, including the ability to sell non-core assets; and

other unforeseen or unexpected events and our success at managing these and the risks involved in the foregoing.

We caution you that the foregoing list of important factors is not exclusive. When evaluating forward-looking statements, you should carefully consider the foregoing factors and other uncertainties and events, including the information set forth in “Risk factors” in I-Information on the company in our Annual Report 2022 and in “Risk factors” in Credit Suisse in our 1Q23 Earnings Release.

Disclaimer

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The English language version of this document is the controlling version.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrants have duly caused this report to be signed on their behalf by the undersigned, thereunto duly authorized.

CREDIT SUISSE GROUP AG and CREDIT SUISSE AG
(Registrants)

By: /s/ Reto Hösli
Reto Hösli
Director

/s/ Annina Müller
Annina Müller
Vice President

Date: May 31, 2023

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May 31, 2023

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 20. Indemnification of Directors and Officers

Under Swiss law, directors and senior officers acting in violation of their statutory duties, whether dealing with bona fide third parties or performing any other acts on behalf of the company, may become liable to the company, its shareholders and (in bankruptcy) its creditors for damages. The directors' liability is joint and several but only to the extent the damage is attributable to each director based on willful or negligent violation of duty. If the board of directors lawfully delegated the power to carry out day-to-day management to a different corporate body, such as an executive board, the board of directors is not vicariously liable for the acts of the members of the executive board. Instead, the directors can be held liable for their failure to properly select, instruct or supervise the executive board members. If directors and officers enter into a transaction on behalf of the company with bona fide third parties in violation of their statutory duties, the transaction is nevertheless valid as long as it is not excluded by the company's business purpose.

Under Swiss law, a company may indemnify a director or officer of the company against losses and expenses (unless such losses and expenses result from a culpable breach of such director's or officer's fiduciary duties under Swiss law), including attorney's fees, judgments, fines and settlement amounts actually and reasonably incurred in a civil or criminal action, suit or proceeding by reason of having been the representative of or serving at the request of the company.

The UBS Group AoA do not contain provisions regarding the indemnification of directors and officers but, according to general principles of Swiss employment law, an employer may, under certain circumstances, be required to indemnify an employee against losses and expenses incurred by him in the execution of his duties under the employment agreement, unless the losses and expenses arise from the employee's gross negligence or willful misconduct.

Insofar as indemnification for liabilities arising under the U.S. Securities Act may be permitted to directors, officers or persons controlling UBS Group AG pursuant to the foregoing provisions, UBS Group AG has been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the U.S. Securities Act and is therefore unenforceable.

Item 21. Exhibits and Financial Statements Schedules

A list of the exhibits included as part of this registration statement is set forth in the Exhibit Index that immediately precedes such exhibits and is incorporated herein by reference.

Item 22. Undertakings

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - i. To include any prospectus required by Section 10(a)(3) of the U.S. Securities Act of 1933;
 - ii. To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of a prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

- iii. To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.
- (2) That, for the purpose of determining any liability under the U.S. Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
 - (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
 - (4) To file a post-effective amendment to the registration statement to include any financial statements required by Item 8.A of Form 20-F at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the U.S. Securities Act of 1933 need not be furnished, provided that the registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (4) and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements.
 - (5) That, for the purpose of determining liability under the U.S. Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
 - (6) That, for the purpose of determining liability of the registrant under the U.S. Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - i. any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - ii. any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - iii. the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - iv. any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
 - (7) That, for purposes of determining any liability under the U.S. Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

- (8) That, prior to any public reoffering of the securities registered hereunder through use of a prospectus which is a part of this registration statement, by any person or party who is deemed to be an underwriter within the meaning of Rule 145(c), the issuer undertakes that such reoffering prospectus will contain the information called for by the applicable registration form with respect to reofferings by persons who may be deemed underwriters, in addition to the information called for by the other Items of the applicable form.
- (9) That every prospectus: (a) that is filed pursuant to the immediately preceding paragraph, or (b) that purports to meet the requirements of Section 10(a)(3) of the U.S. Securities Act of 1933 and is used in connection with an offering of securities subject to Rule 415, will be filed as a part of an amendment to the registration statement and will not be used until such amendment is effective, and that, for purposes of determining any liability under the U.S. Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (10) Insofar as indemnification for liabilities arising under the U.S. Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the U.S. Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the U.S. Securities Act of 1933 and will be governed by the final adjudication of such issue.
- (11) To respond to requests for information that are incorporated by reference into the prospectus pursuant to Items 4, 10(b), 11 or 13 of this Form, within one business day of receipt of such request, to send the incorporated documents by first class mail or other equally prompt means and to arrange or provide for a facility in the United States for the purpose of responding to such requests. This includes information contained in documents filed subsequent to the effective date of the registration statement through the date of responding to the request.
- (12) To supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in the registration statement when it became effective.

EXHIBIT INDEX

- 2.1†* Amended and Restated Merger Agreement, dated as of March 19, 2023 and amended on April 6, 2023 and May 22, 2023, by and between UBS Group AG and Credit Suisse Group AG
- 3.1* Articles of Association of UBS Group AG, dated as of 5 April 2023
- 3.2* Organization Regulations of UBS Group AG dated as of 1 January 2023
- 4.1 Terms and Conditions of Tier 2 Subordinated Notes of UBS AG due 2024, issued 15 May 2014 (Incorporated by reference to Exhibit 4.3 to UBS AG's Annual Report on Form 20-F for the fiscal year ended December 31, 2014)
- 4.2 Terms and Conditions of USD 1.25 billion 7% Tier 1 Subordinated Notes issued by UBS Group AG on 19 February 2015 (Incorporated by reference to Exhibit 4.4 to UBS AG's Annual Report on Form 20-F for the fiscal year ended December 31, 2014)
- 4.3 Terms and Conditions of EUR 1 billion 5.75% Tier 1 Subordinated Notes issued by UBS Group AG on 19 February 2015 (Incorporated by reference to Exhibit 4.6 to UBS AG's Annual Report on Form 20-F for the fiscal year ended December 31, 2014)
- 4.4 Terms and Conditions of USD 1.575 billion Tier 1 Subordinated Notes issued by UBS Group AG on 7 August 2015 (Incorporated by reference to Exhibit 4.8 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2015)
- 4.5 Terms and Conditions of SGD 700 million 5.875% Tier 1 Subordinated Notes issued on 28 November 2018 by UBS Group AG (originally issued by UBS Group Funding (Switzerland) AG and guaranteed by UBS Group AG, migrated to UBS Group AG as issuer on 11 October 2019) (Incorporated by reference to Exhibit 4.17 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2018)
- 4.6 Terms and Conditions of USD 2.5 billion 7.00% Tier 1 Subordinated Notes issued on 31 January 2019 by UBS Group AG (originally issued by UBS Group Funding (Switzerland) AG and guaranteed by UBS Group AG, migrated to UBS Group AG as issuer on 11 October 2019) (Incorporated by reference to Exhibit 4.18 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2018)
- 4.7 Terms and Conditions of additional Tier 1 capital instruments issued pursuant to the Deferred Contingent Capital Plan 2018/19 (Incorporated by reference to Exhibit 4.19 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2018)
- 4.8 Terms and Conditions of AUD 700 million 4.375% Tier 1 Subordinated Notes issued on 27 August 2019 by UBS Group AG (Incorporated by reference to Exhibit 4.17 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2019)
- 4.9 Terms and Conditions of SGD 750 million 4.85% Tier 1 Subordinated Notes issued on 04 September 2019 by UBS Group AG (Incorporated by reference to Exhibit 4.18 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2019)
- 4.10 Terms and Conditions of CHF 275 million 3.00% Tier 1 Subordinated Notes issued on 13 November 2019 by UBS Group AG (Incorporated by reference to Exhibit 4.19 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2019)
- 4.11 Terms and Conditions of additional Tier 1 capital instruments issued pursuant to the Deferred Contingent Capital Plan 2019/20 (Incorporated by reference to Exhibit 4.19 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2020)
- 4.12 Terms and Conditions of USD 750 million 5.125% Tier 1 Subordinated Notes issued on 29 July 2020 by UBS Group AG (Incorporated by reference to Exhibit 4.20 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2020)
- 4.13 Terms and Conditions of USD 1.5 billion 4.375% Tier 1 Subordinated Notes issued on 10 February 2021 by UBS Group AG (Incorporated by reference to Exhibit 4.21 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2020)

- 4.14 Terms and Conditions of additional Tier 1 capital instruments issued pursuant to the Deferred Contingent Capital Plan 2020/21 (Incorporated by reference to Exhibit 4.22 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2020)
- 4.15 Terms and Conditions of USD 750 million 3.875% Tier 1 Subordinated Notes issued on 02 June 2021 by UBS Group AG (Incorporated by reference to Exhibit 4.18 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2021)
- 4.16 Terms and Conditions of USD 1.5 billion 4.875% Tier 1 Subordinated Notes issued on 12 January 2022 by UBS Group AG (Incorporated by reference to Exhibit 4.19 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2021)
- 4.17 Terms and Conditions of CHF 265 million 3.375% Tier 1 Subordinated Notes issued on 16 February 2022 by UBS Group AG (Incorporated by reference to Exhibit 4.20 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2021)
- 4.18 Terms and Conditions of additional Tier 1 capital instruments issued pursuant to the Deferred Contingent Capital Plan 2021/22 (Incorporated by reference to Exhibit 4.21 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2021)
- 4.19 Terms and Conditions of additional Tier 1 capital instruments issued pursuant to the Deferred Contingent Capital Plan 2022/23 (Incorporated by reference to Exhibit 4.19 to UBS's Annual Report on Form 20-F for the fiscal year ended December 31, 2022)
- 4.20 Asset Transfer Agreement between UBS AG and UBS Switzerland AG dated 12 June 2015 (Incorporated by reference to Form 6-K of UBS AG filed on June 17, 2015)
- 4.21 Certain instruments defining the rights of the holders of long-term debt of UBS Group AG and certain of its subsidiaries, none of which authorize a total amount of indebtedness in excess of 10% of the total assets of UBS Group AG and certain of its subsidiaries on a consolidated basis, have not been filed as Exhibits. UBS Group hereby agrees to furnish a copy of any of these agreements to the SEC upon request.
- 5.1* Opinion of Bär and Karrer AG as to the validity of ordinary shares of UBS Group AG being registered
- 10.1† Loss Protection Agreement, dated June 9, 2023, by and between the Swiss Confederation and UBS Group AG
- 21.1* Significant Subsidiaries of UBS Group AG
- 23.1 Consent of Ernst & Young Ltd., relating to certain financial statements of UBS Group AG and UBS AG
- 23.2 Consent of PricewaterhouseCoopers AG, relating to certain financial statements of Credit Suisse Group AG
- 23.3 Consent of PricewaterhouseCoopers AG, relating to certain financial statements of Credit Suisse AG
- 23.4* Consent of Bär and Karrer AG (included in Exhibit 5.1)
- 24.1* Power of Attorney of Officers and Directors (included on the signature page of this registration statement)
- 107* Calculation of Filing Fee Table

* Previously filed

† Schedules, annexes and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K, but will be furnished supplementally to the Securities and Exchange Commission upon request.

SIGNATURES

Pursuant to the requirements of the U.S. Securities Act, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the United States and Switzerland, on June 9, 2023.

UBS GROUP AG

By: /s/ David Kelly _____

Name: David Kelly

Title: Managing Director

By: /s/ Ella Campi _____

Name: Ella Campi

Title: Executive Director

Pursuant to the requirements of the U.S. Securities Act of 1933, as amended, this registration statement has been signed below by the following persons in the capacities indicated and on the dates indicated:

Signature	Title	Date
* _____ Colm Kelleher	Non-Executive Director and Chairman	June 9, 2023
* _____ Lukas Gähwiler	Non-Executive Director and Vice Chairman	June 9, 2023
* _____ Jeremy Anderson	Non-Executive Director and Senior Independent Director	June 9, 2023
* _____ Claudia Böckstiegel	Non-Executive Director	June 9, 2023
* _____ William C. Dudley	Non-Executive Director	June 9, 2023
* _____ Patrick Firmenich	Non-Executive Director	June 9, 2023
* _____ Fred Hu	Non-Executive Director	June 9, 2023
* _____ Mark Hughes	Non-Executive Director	June 9, 2023
* _____ Nathalie Rachou	Non-Executive Director	June 9, 2023
* _____ Julie G. Richardson	Non-Executive Director	June 9, 2023
* _____ Dieter Wemmer	Non-Executive Director	June 9, 2023
* _____ Jeanette Wong	Non-Executive Director	June 9, 2023
* _____ Sergio P. Ermotti	Group Chief Executive Officer	June 9, 2023
* _____ Sarah Youngwood	Group Chief Financial Officer	June 9, 2023
* _____ Christopher Castello	Group Controller and Chief Accounting Officer	June 9, 2023

* David Kelly, by signing his name hereto, does hereby sign this registration statement on behalf of the directors and officers of the registrant above in front of whose name asterisks appear, pursuant to powers of attorney duly executed by such directors and officers and filed with the SEC.

By: /s/ David Kelly

Name: David Kelly

Title: Managing Director, as Attorney-in-Fact

Pursuant to the requirements of Section 6(a) of the U.S. Securities Act of 1933, the Authorized Representative has duly caused this registration statement to be signed on its behalf by the undersigned, solely in his capacity as the duly authorized representative of UBS Group AG in the United States, on June 9, 2023.

By: /s/ David Kelly _____

Name: David Kelly

Title: Managing Director
Authorized Representative in the
United States

LOSS PROTECTION AGREEMENT

dated

9 June 2023

between

THE SWISS CONFEDERATION

and

UBS GROUP AG

regarding

a loss protection guarantee in accordance with article 14*a* of the
Federal Additional Liquidity Ordinance

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THIS LOSS PROTECTION AGREEMENT is dated on the date stated at the beginning of this Agreement, effective as of the Effective Date and made between:

- (A) **THE SWISS CONFEDERATION**, represented by the Federal Department of Finance, Bundesgasse 3, 3003 Berne, Switzerland (“**Confederation**”); and
- (B) **UBS GROUP AG**, a stock corporation (*Aktiengesellschaft*) incorporated in Switzerland with registered number CHE-395.345.924, whose registered office is at Bahnhofstrasse 45, 8001 Zurich, Switzerland (“**UBS**”)

(the Confederation and UBS each a “**Party**” and collectively the “**Parties**”).

WHEREAS:

- (1) Pursuant to article 14a of the Federal Additional Liquidity Ordinance, the Confederation may grant a loss protection guarantee (*Garantie zur Verlustabsicherung abzuwickelnder Aktiven der übernommenen Bank*) to the acquiring bank in connection with transactions pursuant to the Swiss Merger Act between banks supervised by the Swiss Financial Market Supervisory Authority (FINMA) which are systemically important or part of a systemically important financial group in accordance with article 7 of the Banking Act and which have international operations.
- (2) On 19 March 2023, on the basis of confirmations from the representatives of the Swiss Government, FINMA and the Swiss National Bank (SNB) that appropriate stabilisation and other measures would be taken in connection with the merger, UBS and Credit Suisse Group AG entered into a merger agreement with UBS as acquiring entity, as the same was subsequently amended on 6 April 2023 and 22 May 2023 (“**Merger**”). The confirmations from the representatives of the Swiss Government included a commitment to grant a loss protection guarantee to UBS pursuant to the Federal Additional Liquidity Ordinance.
- (3) As background to the entering into this Agreement, UBS acknowledges and understands, at the date hereof and without compromising in any way its legal and regulatory obligations, including its fiduciary duties to and the rights / interests of its shareholders, the significance of (i) the enlarged UBS Group to the importance of Switzerland as a financial centre whose development it has an intention to support and (ii) having its headquarters in Switzerland and confirms its intention of keeping its headquarters in Switzerland during the term of the Loss Protection Guarantee.
- (4) On the basis of its commitment made on 19 March 2023, the Confederation wishes to grant a loss protection guarantee to UBS pursuant to article 14a of the Federal Additional Liquidity Ordinance in accordance with and subject to the terms and conditions of this Agreement.

IT IS AGREED as follows:

PART I
GENERAL PROVISIONS

1. DEFINITIONS, INTERPRETATION AND CALCULATION OF TIME PERIODS

1.1 Definitions

Words defined in **Schedule 1** (*Definitions Schedule*), as the same may be further amended, restated, varied, supplemented and/or replaced from time to time with the written consent (email suffices) of the Parties shall, except as indicated otherwise herein or as far as the context otherwise requires, have the same meaning throughout this Agreement.

1.2 Interpretation

- (a) Unless a contrary indication appears, a reference in this Agreement to:
- (i) any Party or any other person shall be construed so as to include its successors in title, permitted assigns and permitted transferees to, or of, its rights and/or obligations under the LPG Documents;
 - (ii) a Covered Asset shall be construed so as to also include a reference to a group of Covered Assets;
 - (iii) the Confederation includes, in particular, without limitation, the SFAO for the purposes of information, audit and similar rights as well as cost reimbursement obligations of UBS under this Agreement;
 - (iv) a document in agreed form is a document which is previously agreed in writing by or on behalf of the Confederation and UBS;
 - (v) an LPG Document or any other agreement or instrument is a reference to that LPG Document or other agreement or instrument as amended, supplemented, extended or restated (however fundamentally and whether or not more onerously) or replaced;
 - (vi) a person includes any individual, firm, company, corporation, government, state or agency of a state or any association, trust, joint venture, consortium, partnership or other entity (whether or not having separate legal personality);
 - (vii) a regulation includes any regulation, rule, official directive, decree, ruling or guideline (whether or not having the force of law) of any governmental, intergovernmental or supranational body, agency, department or of any regulatory, self-regulatory or other authority or organisation;
 - (viii) a provision of law is a reference to that provision as amended or re-enacted (including, with respect to the Federal Additional Liquidity Ordinance, any replacement or successor statute, ordinance, regulation or other law enacted by the Confederation or any Government Entity); and
 - (ix) a time of day is a reference to Swiss time.

- (b) A breach, default or Termination Event is “continuing” if it has not been waived by the Confederation (and, for the avoidance of doubt, any default in respect of a failure to deliver any certificate, notice, document, report, financial statement or other information or to take any other action within a time period prescribed in an LPG Document shall no longer be continuing upon performance of such obligation even though such performance is not within the prescribed period specified in any LPG Document).
- (c) Unless a contrary indication appears, a term used in any other LPG Document or in any notice given under or in connection with any LPG Document has the same meaning in that LPG Document or notice as in this Agreement.
- (d) Unless otherwise stipulated in this Agreement, where this Agreement provides for several rights of a Party based on the occurrence of certain events, that Party shall be free to decide which rights it wants to exercise (and exercising any of such rights shall not be construed as a waiver of any other right under or in connection with this Agreement).
- (e) If provisions in this Agreement include English terms after which either in the same provision or elsewhere in this Agreement German terms have been inserted in parentheses and/or italics, the respective German terms alone and not the English ones shall be authoritative for the interpretation of the respective provisions and, therefore, shall prevail.
- (f) Any reference in this Agreement to UBS’ or its Representatives’ confidentiality obligations shall only include confidentiality obligations which are not overridden or displaced by applicable Swiss banking or supervisory laws.
- (g) Any provision of this Agreement shall be interpreted so as to comply with Applicable Law, in particular with the Federal Additional Liquidity Ordinance.

1.3 Calculation of time periods

In this Agreement, in respect of the computation of periods of time from a specified date to a later specified date, the word “from” means “from and including” and the words “to” and “until” each mean “to and including”. Periods of days referred to in this Agreement shall be counted in calendar days unless Business Days are expressly prescribed.

2. LOSS PROTECTION GUARANTEE PRINCIPLES

2.1 General

- (a) The LPG Principles are intended to serve for context and interpretational purposes only. They intentionally do not use terms defined elsewhere in this Agreement.
- (b) In the event of any inconsistency between the other terms and conditions set forth in this Agreement and the LPG Principles, those other terms and conditions shall prevail.

- (c) In the event of a dispute regarding the construction of this Agreement, the Parties and any competent court or Expert shall have regard to the LPG Principles in seeking to construe any relevant provisions of this Agreement and to ascertain the common intention of the Parties.

2.2 LPG Principles

The key principles that apply for the Loss Protection Guarantee (“**LPG Principles**”) are the following:

2.2.1 Main principle

The Confederation is supporting UBS by granting a loss protection guarantee in the amount of up to CHF 9,000,000,000 for certain assets acquired by UBS by way of its merger with CSG. UBS will apply diligent and prudent asset and risk management principles bearing in mind its own circumstances and the interests of the Confederation in order to minimise losses.

2.2.2 Covered assets

- (a) Generally, UBS shall be protected under this loss protection guarantee against losses arising from certain assets and exposures of CSG that are considered non-core by UBS and require tail risk protection that was difficult to assess at the time of the agreement on the merger between UBS and CSG.
- (b) Coverage will be provided in respect of qualified covered entities and for a pre-defined static perimeter of assets and exposures (“**covered assets**”) which are clearly, transparently and unambiguously identified and determined (line-by-line) on the signing date in the asset pool schedule, it being understood that certain limited covered assets are dynamic in nature. In the asset pool schedule, each covered asset is allocated to one “**covered asset class**”. Such identification and allocation affects the treatment of covered assets under this loss protection guarantee and should not be subject to adverse selection to the disadvantage of either party.

2.2.3 Initial valuation and financial projections

The initial valuation of each covered asset shall be equal to the value as represented in UBS’ accounts as per the valuation date reflecting their market value following accounting principles and market valuation standards. Any losses on the covered assets realised or unrealised before such date are borne by UBS and are not part of the shared loss amount. Any existing provisions or valuation reserves will be allocated to the relevant covered asset. The parties will agree on a business plan for the realisation of the covered assets with transparent financial loss projections, it being understood that the agreement on a business plan shall not be a condition precedent to UBS realising the covered assets.

2.2.4 Losses

- (a) This loss protection guarantee shall only cover final financial loss in value of the covered assets and exposures in the future after the valuation date which loss is realised during the term of this loss protection guarantee.

- (b) Except for reasonable legal recovery, hedging and realisation costs for covered assets, no costs, including, without limitation, operational and funding costs shall be covered under this loss protection guarantee.
- (c) There must be no double-counting of elements for the purpose of the calculation of losses.

2.2.5 Asset management

UBS shall carefully, diligently and prudently manage and administer the covered assets in a commercially sensible manner. UBS shall apply due care in accordance with its own standards and good industry practice.

2.2.6 Realisations and loss share

- (a) UBS shall realise the covered assets within a reasonable time frame with a view to preserving value, whereby the losses incurred in the realisation of each covered asset shall be minimised and the proceeds from the realisation of the covered assets shall be maximised, taking into account the principle set out in Clause 2.2.8.
- (b) If the realisation of all covered assets results in a net loss, the first loss in the amount of CHF 5,000,000,000 (in words: five billion Swiss francs) shall be borne by UBS. The Confederation shall bear the amount of any subsequent losses (if any) up to (and capped at) an amount of CHF 9,000,000,000 (in words: nine billion Swiss francs).

2.2.7 Governance

- (a) The governance for the management and realisation of the covered assets shall provide for incentives for UBS to (i) preserve the value of the covered assets, maximise realisation proceeds as well as minimise losses, taking into account the principle set out in Clause 2.2.8, and (ii) fostering the implementation of the principles of this loss protection guarantee.
- (b) Subject to any secrecy or confidentiality obligations of UBS which are not overridden or displaced by Swiss Applicable Law, the Confederation (including the SFAO) shall have comprehensive information, audit and investigation rights to protect its interests.

2.2.8 Commercial sensibility

The parties acknowledge that UBS incurs, and has to bear, operational and funding costs for holding and managing the covered assets in order to preserve their value, in connection with realisations and related to governance, and that in the determination and interpretation of UBS' obligations under this agreement these costs shall reasonably be taken into account in view of the purpose and importance of the respective obligation and the size and nature of the loss protection guarantee.

2.2.9 Guarantee fees

The value of the guarantee and the risks and costs assumed by the Confederation shall be adequately compensated by UBS through guarantee fees.

PART II
LOSS PROTECTION GUARANTEE

3. EFFECTIVENESS

- (a) This Agreement shall become effective and binding on the Parties upon (x) receipt by the Confederation (or the waiver by the Confederation of the requirement to receive) all of the documents and other evidence listed in **Part I of Schedule 2** (*Conditions Precedent*) and (y) receipt by UBS (or the waiver by UBS of the requirement to receive) all of the documents and other evidence listed in **Part II of Schedule 2** (*Conditions Precedent*) (the date of the fulfilment of these requirements, “**Effective Date**”). Each Party shall notify the other Party promptly upon receipt of the relevant documents and evidence, such notification to constitute confirmation of fulfilment of the relevant conditions precedent.
- (b) Before the Effective Date, this Agreement shall have no effect.

4. COVERED ASSETS

4.1 Identification and determination of Covered Assets

4.1.1 Identification

- (a) The “**Asset Pool**” includes (i) the assets and exposures as specified, individualised and listed in **Schedule 3** (*Asset Pool Schedule*) (“**Asset Pool Schedule**”) and (ii) any Closely Related Hedges. The Asset Pool Schedule shall specify to which Portfolio the relevant asset or exposure as well as any Closely Related Hedge belongs.
- (b) Within 90 days after the Closing Date, both Parties shall further review the Asset Pool Schedule in order to identify any data quality issues and, on the basis of such review, discuss in good faith whether any assets or exposures should be added to or removed from the Asset Pool Schedule or be allocated to a different Portfolio within the Asset Pool Schedule. Any such addition, removal or allocation shall be subject to an agreement among the Parties evidenced by a written instrument. Any references in this Agreement to “Asset Pool Schedule” shall be references to the Asset Pool Schedule taking into account any additions, removals or allocations made in accordance with this paragraph (b).
- (c) No asset or exposure held by any Group Company at any time that is not identified as being part of the Asset Pool in accordance with paragraph (a) or paragraph (b) shall be part of the Asset Pool.

4.1.2 Non-Covered Assets

(a) *Asset Exclusion Criteria*

Notwithstanding anything to the contrary set forth in any LPG Document (including, without limitation, the inclusion of any asset or exposure in the Asset Pool Schedule), any asset or exposure, including, without limitation, any Closely Related Hedge, meeting at any given point in time any one or more of the following criteria (“**Asset Exclusion Criteria**”) is permanently excluded from the Asset Pool (each such asset or exposure, a “**Non-Covered Asset**”):

- (i) it was not Economically Owned by one or more Covered Entities on 31 March 2023 and on the Closing Date;

- (ii) it has not been Economically Owned by one or more Covered Entities at any point in time from the Closing Date until the respective Realisation Date;
 - (iii) any Counterparty of which is, or is Controlled by, a Covered Entity or a Group Company at any point in time from the Signing Date until the respective Realisation Date (unless any such Covered Entity is a Counterparty to a Hedge as identified in the Asset Pool or as may be entered into from time to time in accordance with the Hedging Policy);
 - (iv) any Counterparty of which is, or is Controlled by, at the Closing Date, an Excluded Person;
 - (v) subject to the procedure set out in paragraph (c) below, it does not comply with all Applicable Laws in all material respects or has, following the Closing Date, not been marketed or distributed by any Group Company in all material respects in accordance with Applicable Laws;
 - (vi) it is an asset or exposure listed in or meeting the criteria set forth in **Schedule 5** (*Excluded Assets*);
 - (vii) it relates to Litigation, except for Permitted Litigation; or
 - (viii) it is deemed to be a Non-Covered Asset by operation of any other applicable provision of this Agreement.
- (b) If an Asset Exclusion Criterion applies with respect to only part of a Covered Asset, then that otherwise Covered Asset as a whole shall be deemed to be a Non-Covered Asset.
- (c) If UBS or any other Group Company becomes aware that a Covered Asset does not comply with all Applicable Laws in all material respects, UBS shall notify the Confederation promptly upon becoming aware and the Parties shall enter into good faith negotiations for a period of up to 60 days (or such longer period as the Parties may agree) with a view to agreeing on the further treatment of that Covered Asset as Covered Asset or as Non-Covered Asset. In case the Parties disagree whether or not any relevant non-compliance is material, the procedure pursuant to Clause 25 shall apply.
- (d) UBS may, at any time, exclude particular Covered Assets from the pool of Covered Assets by delivery of a notice to the Confederation to that effect which includes a confirmation that in UBS' reasonable opinion, having made an assessment of the realistic realisation scenarios with respect to each Covered Asset listed in the relevant notice in accordance with Good Industry Practice, the Realisation of such Covered Asset, were it to remain in the pool of Covered Assets, would more likely than not result in a positive Net Loss Amount. If the Confederation does not agree with UBS'

opinion and the relevant assessment, it shall so notify UBS within 30 Business Days of receipt of UBS' notice and the Parties shall enter into good faith negotiations for a period of up to 60 days (or such longer period as the Parties may agree) with a view to agreeing on the further treatment of the relevant Covered Asset(s) as Covered Asset(s) or as Non-Covered Asset(s). Should the Parties not reach an agreement within that period, the procedure pursuant to Clause 25 shall apply, provided that in case of a submission to an Expert, the Expert Question shall be whether or not the Realisation of the relevant Covered Asset, were it to remain in the pool of Covered Assets, would more likely than not result in a positive Net Loss Amount. In accordance with the relevant Expert determination the respective Covered Asset shall either be excluded from, and constitute a Non-Covered Asset, or stay part of the pool of Covered Assets.

4.2 Covered Asset Data

- (a) The Asset Pool Schedule as well as any information provided in accordance with Clause 10.2 shall comprise all data (with such redactions or other safeguard measures as may be necessary for UBS to comply with its confidentiality obligations (which are not overridden or displaced by Swiss Applicable Law) subject to there being the required measures in place for the Confederation to be able to clearly identify the relevant Covered Assets) on the Covered Assets relevant for the purposes of the Loss Protection Guarantee, together with any Closely Related Hedges as are relevant, in particular with a view to identifying and valuating the Covered Assets, monitoring compliance with the Asset Exclusion Criteria, the allocation of each Covered Asset to a specific Covered Asset Class and the determination and allocation of Closely Related Hedges. The data details comprised in the Asset Pool Schedule shall serve as sole source of information for the purpose of identifying the Covered Assets and the allocation of each Covered Asset to a specific Covered Asset Class. Identification of any such data in the Asset Pool Schedule shall not be taken as (i) evidence for compliance with the Asset Exclusion Criteria, (ii) the Confederation's acceptance or agreement that any of the factual Information contained in the Asset Pool Schedule in relation to a Covered Asset is correct, or (iii) the Confederation's agreement to waive any breach under an LPG Document.
- (b) Upon becoming aware of any material incompleteness, error or inaccuracy in the Asset Pool Schedule, UBS shall notify the Confederation and provide the Confederation with details of any proposed correction or modification. If as a result of any such proposed correction or modification to the Asset Pool Schedule any asset or exposure meets an Asset Exclusion Criteria and/or the maximum financial exposure of the Confederation under the Loss Protection Guarantee is greater than the maximum financial exposure of the Confederation on the basis of the Asset Pool Schedule agreed upon in accordance with this Agreement, the Covered Asset(s) to which the proposed correction or modification relates shall, upon a corresponding request of the Confederation, be permanently excluded from the pool of Covered Assets. Should UBS, following such a request of the Confederation, believe that the relevant correction or modification does not have the effect stipulated above, this shall be determined in accordance with the procedure pursuant to Clause 25.

- (c) In respect of the Asset Pool, UBS may satisfy any requirement to identify the assets and exposures that constitute Covered Assets as set out in this Clause 4 by providing information on a wider portfolio of assets and liabilities (consisting both of (i) assets and exposures that are Covered Assets and (ii) assets and exposures that are Non-Covered Assets) as long as UBS clearly identifies those assets and exposures that are Non-Covered Assets to the reasonable satisfaction of the Confederation (and the assets and exposures in the Asset Pool shall be those assets and exposures other than those falling within sub-paragraph (ii)).

4.3 **Determination of Portfolios**

For the purpose of the LPG Documents, a “**Portfolio**” shall be any of the portfolios of Covered Assets listed in **Schedule 4** (*Portfolios*) (“**Portfolio Schedule**”). No Party may make any unilateral change or modification to the number, scope or nature of any of the Portfolios listed in the Portfolio Schedule.

4.4 **Virtual Data Room**

UBS shall ensure that no later than within five Business Days after the Closing Date, the Confederation (or, if required in view of confidentiality or secrecy obligations existing at the Closing Date, the Confederation’s advisors which have been cleared for such purposes) receive a copy of the Virtual Data Room, together with a confirmation by the data room provider that this copy reflects the content of the data room as of 7 June 2023.

5. **INITIAL VALUATION**

5.1 **Definition**

The initial valuation of a Covered Asset as per the Valuation Date (“**Initial Valuation**”) corresponds to the amount in U.S. Dollars which has been determined for such Covered Asset in accordance with Clause 5.3 and Clause 5.4.

5.2 **FX fluctuation after Initial Valuation**

Any part of the Shared Loss Amount received or paid by a Group Company shall be booked in U.S. Dollars, in alignment with the reporting currency used by UBS for operational management and accounting purposes of the Covered Assets. The Net Loss Amount will be converted to CHF pursuant to paragraph (d) of Clause 8.1.

5.3 **Proposed Initial Valuation**

- (a) UBS shall make a proposal for the Initial Valuation of each Covered Asset or group of Covered Assets as per the Valuation Date within 120 days after the Closing Date.
- (b) The proposals made by UBS pursuant to paragraph (a) shall (i) be made according to IFRS taking into account the results of an independent valuation conducted by KPMG LLP, (ii) reflect at least the decrease in valuation compared to the CS Book Value as communicated to the Confederation prior to the Signing Date and taking into account the effects of the Merger and (iii) be based upon UBS’ prevailing fair market value valuation methodologies, as used in the preparation of UBS’ financial statements, including, without limitation, any valuation adjustments through credit provisions and valuation reserves used for funding valuation adjustments (FVA), counterparty valuation adjustments (CVA), other valuation adjustments to cover model risk, liquidity or other valuation risks applying such market standard valuation practices and

methods and well supported market data inputs or, where such market data inputs are not available, sound assumptions or proxies used as input to valuation models (including independent price verification and model validation processes) as are reasonably necessary for the valuation of the relevant Covered Asset.

5.4 Disagreement on Initial Valuation

The Confederation will review the adequacy of UBS' proposed Initial Valuation. If the Confederation does not accept the Initial Valuation for a Covered Asset proposed by UBS, it shall notify UBS, and the Parties shall enter into good faith negotiations for a period of up to 60 days (or such longer period as the Parties may agree) with a view to agreeing on the Initial Valuation. Should the Parties not reach an agreement within that period, the Initial Valuation of such Covered Asset shall be determined in accordance with the procedure pursuant to Clause 25.

5.5 Errors in determination of Initial Valuation

Upon becoming aware of any material error or inaccuracy of any Initial Valuation, UBS shall notify the Confederation and provide it with details of any proposed correction or modification. If the Confederation does not accept the proposed correction or modification and determines that the disagreement over that correction or modification has a material impact on the Loss Protection Guarantee, it shall notify UBS, and the Parties shall enter into good faith negotiations for a period of up to 60 days (or such longer period as the Parties may agree) with a view to agreeing on a correction or modification. Should the Parties not reach an agreement within that period, the existence of a material error or inaccuracy of an Initial Valuation, the impact of such (potential) material error or inaccuracy on the Initial Valuation and the corresponding (potential) adjustment to the Initial Valuation of the respective Covered Asset shall be determined in accordance with the procedure pursuant to Clause 25.

6. LOSS BUDGET AND BUSINESS PLAN

(a) UBS undertakes to make proposals for the following documents (each a "**Plan Proposal**"):

- (i) for each Portfolio, a loss budget for the aggregate of the Net Loss Amounts of the Covered Assets comprised therein; and
- (ii) for each Portfolio, a business plan for the Realisation of the Covered Assets comprised therein,

it being understood that the Plan Proposal for a loss budget (and upon agreement in accordance with paragraph (d), the Loss Budget) for a particular Portfolio may be comprised in and constitute a part of the Plan Proposal for a business plan (and upon agreement in accordance with paragraph (d), the Business Plan) for a particular Portfolio.

- (b) Each Plan Proposal shall be submitted by UBS to the Confederation within 120 days after the Closing Date and:
 - (i) with respect to a Loss Budget, shall include an estimated loss forecast based on the financial plan and the selected exit/unwinding strategy both under baseline and adverse (stress) scenarios;
 - (ii) with respect to a Business Plan, shall include a plan for a time period of five years after the Closing Date covering, *inter alia*, the following items:
 - (A) *Financial projections*: full detailed profit and loss balance sheet and capital financial forecasts by Portfolio including annual estimates under baseline and adverse scenarios with the financial metrics to be projected to include book value, leverage exposure, risk weighted assets (RWA), MTM, provisions, valuation reserves, P&L, Realisation Expenses, VaR and stress losses;
 - (B) *Capital plan*: capital requirements and RWA forecasts including potential losses by Portfolio under baseline and adverse scenarios; and
 - (C) *Exit/unwinding strategies*: exit and/or unwinding strategies selected for the Portfolio including portfolio / position sales, business divestitures, hold to maturity, novation / transfer to new dealer, close out position through hedging, recovery under default scenario and loss mitigation strategies; and
 - (iii) be prepared by UBS:
 - (A) in accordance with the LPG Principles;
 - (B) in good faith;
 - (C) in accordance with any provisions of the Loss Protection Guarantee and the LPG Documents; and
 - (D) in accordance with the banking policies, practices and procedures of UBS or other relevant Group Companies, to the extent consistent with Good Industry Practice (based on an understanding that (x) a plan of that nature is subjective and relies on a number of assumptions and methodology applied in good faith, but which may not accurately reflect actual events over the relevant plan period) and (y) information provided for the immediate term within any period may be more detailed than information provided for a later term within that period.
- (c) Notwithstanding paragraph (b), UBS has the right to revise any Plan Proposal until the date falling 120 days after the Closing Date.
- (d) Upon receipt of any Plan Proposal, or any revised version thereof in accordance with paragraph (c), by the Confederation, the Parties shall enter into good faith negotiations for a period of up to 60 days (or such longer period as the Parties may agree) with a view to agreeing on the content of the relevant Plan Proposal, with neither of them being obliged to accept any Plan Proposal or any part thereof. Any agreed version of the Plan Proposal for a business plan and a loss budget, respectively, if and once agreed among the Parties, shall become the “Business Plan” and a “Loss Budget” for the purposes of the LPG Documents.
- (e) UBS shall review the Business Plan and each Loss Budget once a year. Any material amendment, modification, supplementation or restatement of any Business Plan or any Loss Budget requires the prior written consent of both Parties.

7. REALISATIONS

7.1 Main obligations

- (a) Subject to the LPG Principles, UBS shall use its commercially reasonable efforts and apply due care to minimise the Net Loss Amount incurred in the Realisation of each Covered Asset and to maximise Net Realisation Proceeds.
- (b) Without limiting the generality of the foregoing, UBS shall use commercially reasonable efforts to, with regard to any Covered Asset or any relevant group of Covered Assets:
 - (i) (x) ensure that the relevant Covered Asset or group of Covered Assets is covered by a Business Plan which has been adopted by UBS in accordance with this Agreement, or, as long as no Business Plan has been adopted in accordance with this Agreement for the Portfolio such Covered Asset or group of Covered Assets belongs to, develop and implement a strategy for Realisations and (y) plan and organise Realisations;
 - (ii) seek to identify and give due consideration to any potential Realisation;
 - (iii) aim at closing Realisations of Covered Assets as a group of Covered Assets when Realisation as a group is commercially reasonable;
 - (iv) determine the right timing in view of loss minimisation for its Realisation within the term of the Loss Protection Guarantee;
 - (v) evaluate and give due consideration to suitable potential purchasers, prioritise them and solicit offers from purchasers based on this determination;
 - (vi) provide interested purchasers (as determined in accordance with sub-paragraph (v)) with adequate Information reasonably necessary to assess its value and answer in good faith any relevant questions from such interested purchaser within reasonable time upon request;
 - (vii) (subject to the determination set out above) negotiate or determine the terms and conditions of the purchase in good faith and in accordance with Good Industry Practice; and
 - (viii) collect Asset Repayments and Hedging Benefits in accordance with Good Industry Practice.

7.2 Permitted Realisations

- (a) UBS shall, and shall be permitted to, conduct Permitted Realisations of the Covered Assets.
- (b) A Realisation of a Covered Asset is permitted (each a “**Permitted Realisation**”) if:
 - (i) the Realisation is:
 - (A) a direct Realisation; or
 - (B) an indirect Realisation by sale or other disposal of a Covered Entity or the Holding Company of a Covered Entity either as permitted in compliance with the Governance Policy or if there is no Governance Policy, with the prior written consent of the Confederation, such consent not to be unreasonably withheld or delayed; and
 - (ii) one of the following requirements is fulfilled:
 - (A) an Initial Valuation of such Covered Asset has been finally determined in accordance with Clause 5.1 before the Realisation Date, or, if no such Initial Valuation has been finally determined before the Realisation Date:
 - (1) the Realisation is closed within 120 days of the Closing Date; and
 - (2) the Net Loss Amount resulting from such Realisation (when aggregated with the Net Loss Amount resulting from the Realisations of all other Covered Assets for which no Initial Valuation has been determined in accordance with Clause 5.1 before the respective Realisation Dates) does not exceed CHF 200,000,000 (or such higher amount as the Parties may agree);
 - (B) (without prejudice to paragraph (a)(v) of Clause 4.1.2) UBS reasonably determines that its continued Economic Ownership of that Covered Asset would or will likely result in a breach of Applicable Law; or
 - (C) UBS reasonably determines that its continued Economic Ownership of that Covered Asset would or will likely result in a material reputational risk to UBS.
- (c) If a Realisation is closed that is not a Permitted Realisation, the relevant Covered Asset shall be deemed to have been permanently excluded from the pool of Covered Assets and constitutes a Non-Covered Asset, and any related Net Loss Amounts from the Realisation of such Covered Assets shall not be counted as Shared Loss Amount.

7.3 Gross Realisation Proceeds and Net Realisation Proceeds

- (a) “**Gross Realisation Proceeds**” means the sum of all gross considerations and benefits received on or after the Valuation Date other than Asset Repayments (without double-counting) in connection with the Realisation of a Covered Asset, including, without limitation:
- (i) any direct or indirect consideration, purchase price, proceeds, assets, receipts, realisations, recoveries, liquidation proceeds, rights, interests and any other payment or benefits whether received or to be received prior to or after the Realisation Date;
 - (ii) any final reduction in or discharge of obligations owed to (or by) any Applicable Entity as a result of: (i) setting off against or netting with obligations owed by (or to) any Applicable Entity, or (ii) any other process or arrangement (including counterclaim when finally settled) having a substantially similar effect;
 - (iii) any asset received that is not cash (including any debt or equity security received in a restructuring or otherwise) and all receipts, realisations, recoveries, rights, interests and benefits with respect to, resulting from or arising out of each such non-cash asset (which may include rent and dividends), and any Gross Realisation Proceeds received for a Realisation of such non-cash asset;
 - (iv) the proceeds of any insurance claim under any insurance related to such Covered Asset;
 - (v) the proceeds of any claim against any person (including any Representative to which any responsibilities, duties or obligations in connection with the Management and Administration of any Covered Asset may have been transferred) related to a Covered Asset, including any claim for negligence, misrepresentation, breach of warranty, breach of contract, breach of duty, fraud, bad faith or wilful default;
 - (vi) the proceeds of enforcement of, or any other asset, receipt, realisation, recovery, right, interest or benefit with respect to, resulting from or arising out of, any Security securing any claims under any Covered Asset and/or its Underlying Documentation;
 - (vii) the proceeds of any claim under an indemnity; and
 - (viii) without limitation of any of the foregoing, any refunds of or payments received in respect of any withholdings, deductions or Tax credits (except to the extent that any Applicable Entity is obliged to account for the same to any Counterparty in respect of that Covered Asset), and any amounts received in respect of any VAT or Stamp Duty to the extent these are directly attributable to the relevant Covered Asset.
- (b) In the context of a Derivatives Instrument, “**Gross Realisation Payments**” means the sum of all gross considerations and benefits paid by a Group Company on or after the Valuation Date other than Asset Repayments (without double-counting) in connection with the Realisation of that Covered Asset, including any amounts as listed in paragraph (a)(i) to (viii) of this Clause 7.3, provided that such amounts shall be paid or payable rather than received or receivable.

- (c) Other than in respect of a Derivatives Instrument, Net Realisation Proceeds may not be a negative amount. Net Realisation Proceeds shall not include any deduction for, or be decreased due to, any Excluded Losses and Costs or Operational Losses.

7.4 Realisation procedures

- (a) The Asset Management Framework shall include rules relating to the maximization of the Net Realisation Proceeds. Except as set forth otherwise in a Policy approved by the Confederation, any Realisation (i) relating to a Major Transaction requires that at least three market bids were obtained or explanations are provided why there was no such second and/or third best bidder and (ii) relating to a Material Transaction requires that in case of Conflict relating to any Covered Asset Purchaser, procedures are applied that ensure that the Gross Realisation Proceeds and the Gross Realisation Payments are at arm's length.
- (b) For the purposes of the calculation of the relevant thresholds in the definition of "Material Transaction" and "Major Transaction", the Realisation of a group of Covered Assets is deemed to be, and treated as, one transaction in respect of a Covered Asset, regardless of whether such Realisation is entered into or closed as one or a series of separate transactions, if either:
 - (i) they are in the same Covered Asset Class; or
 - (ii) they are in different Covered Asset Classes but sold in a package,and subject to a Realisation at a similar time to the same Covered Asset Purchaser or group of Covered Asset Purchasers in connection with a single or a series of related transactions. For the avoidance of doubt, parallel transactions with the same Covered Asset Purchaser that are not related will not be taken into account for the purpose of this paragraph (b).
- (c) Where a Covered Asset and any other asset are sold as a package under a single transaction at a single price, UBS shall use commercially reasonable efforts to ensure that the price is being split in the Realisation Documentation to allow the determination of the amount of any Gross Realisation Proceeds attributable to the Covered Asset, and that this amount is determined in a commercially reasonable manner.

7.5 Realisation Documentation

- (a) Each Realisation Documentation shall comply with the following requirements, unless there are justified reasons for a deviation as documented and adequately proven by UBS:
 - (i) all Gross Realisation Proceeds shall be exclusively provided for in the Realisation Documentation; and
 - (ii) the consideration shall not be reduced as compensation for any item that qualifies as Excluded Losses and Costs.
- (b) The Parties acknowledge and agree that in case of a Realisation of a group of Covered Assets, a Covered Asset Class or a Portfolio, the Realisation of such group of Covered Assets, Covered Asset Class or Portfolio may be subject to the same Realisation Documentation.

7.6 Qualified reporting

- (a) Upon a Realisation of a Covered Asset or a group of Covered Assets (the election of whether to report on a Covered Asset-basis or on a “group-of-Covered-Assets”-basis being at UBS’ discretion), UBS shall provide the Confederation with the following Information (cumulatively, if applicable), together with the Quarterly Statements:
 - (i) for each Covered Asset (x) attributable to a Portfolio in respect of which a Level 1 Trigger Event was triggered and whose Realisation constitutes a Material Transaction or (y) whose Realisation constitutes a Major Transaction:
 - (A) statement and explanation that the Gross Realisation Proceeds received for, and the Gross Realisation Payments paid due to, the Realisation of such Covered Assets were in the opinion of UBS in line with the LPG Principles;
 - (B) short elaboration that the Asset Repayments and Hedging Benefits of such Covered Assets were collected in accordance with Good Industry Practice;
 - (C) short explanation why the Enforcement Costs, if any, incurred in connection with the Realisation of each respective Covered Asset were reasonably necessary and adequate to enforce the respective Gross Realisation Proceeds under the circumstances;
 - (D) a Conflicts Certificate for such Covered Assets; and
 - (E) a summary of the offer of the second and third best bidder for the respective Covered Assets in reasonable detail, with reasoning on which grounds the offers were qualified in such order or explanations why there was no such second and/or third best bidder;
 - (ii) for each Covered Asset or group of such Covered Assets where before the Realisation Date no Initial Valuation has been determined in accordance with the terms of this Agreement (in case of a group of Covered Assets for all these Covered Assets), additionally (to sub-paragraph (i)) with explanations why the Gross Realisation Proceeds received for, and the Gross Realisation Payments paid due to, the Realisation of such Covered Asset(s) and, in particular, the timing of the Realisation of such Covered Asset(s) were reasonable under the circumstances.
- (b) In each case of sub-paragraphs (a)(i) and (a)(ii), respectively, the Confederation shall have the right to request that UBS, and UBS shall, within 20 days upon such request, document and provide the necessary proof to the Confederation that:
 - (i) UBS complied with the LPG Principles with regard to the Realisation of such Covered Asset(s);

- (ii) UBS complied with any procedures that may be stipulated in the Business Plan in relation to such Covered Assets (if any); and
 - (iii) UBS complied in relation to such Covered Assets with the obligations set forth in Clauses 7.1 to 7.6.
- (c) In each case of sub-paragraphs (a)(i) and (a)(ii), respectively, the Confederation shall have the right to request any and all underlying documentation relating to the respective Realisation in order to investigate whether UBS has complied with all applicable requirements set forth in Clauses 7.1 to 7.6. If, following such investigation, the Confederation concludes that in relation to any Covered Asset there is a violation by UBS of any relevant requirement and such violation materially increased the Net Loss Amount, the Confederation may notify UBS that the respective Net Loss Amount of the respective Covered Asset shall be reduced by 50% (or any higher amount if caused by such violation) (and the amount by which the Net Loss Amount is reduced shall, with effect as of such notification, not be counted towards the Shared Loss Amount) (“**Shared Loss Discount**”). If UBS does not agree with such determination and the application of the Shared Loss Discount, it may initiate the procedure pursuant to Clause 25 for the purpose of determining whether the application of the Shared Loss Discount was justified.
- (d) If there is no Loss Budget for an individual Covered Asset, but such Covered Asset is part of a group of Covered Assets, a Covered Asset Class or a Portfolio for which a Loss Budget has been agreed, such Loss Budget shall apply as Loss Budget for such Covered Asset, and the relevant amount shall be allocated pro rata of the Initial Valuation of such Covered Asset in relation to the aggregate amount of all Initial Valuations of the Covered Assets to which such Loss Budget applies. If there is only a Loss Budget on the level of all Covered Assets, such Loss Budget shall be deemed not to be a Loss Budget for any purpose and all Covered Assets shall be treated under the assumption that there is no Loss Budget.

7.7 Residual Positions

- (a) If, after the fifth anniversary of the Closing Date:
- (i) the aggregate amount of the Initial Valuations of all remaining Covered Assets (that have not been subject to a Realisation) represents less than 20% of the aggregate amount of the Initial Valuations of all Covered Assets;
 - (ii) there have been commercially reasonable efforts by UBS to effect Realisations of such remaining Covered Assets; and
 - (iii) despite such efforts, UBS has not been able to effect such Realisations in accordance with the terms of this Agreement,
- (each remaining Covered Asset, a “**Residual Position**”), and if UBS or the Confederation so requests, the Parties shall enter into good faith negotiations for a period of up to 60 days (or such longer period as the Parties may agree) with a view to identifying and agreeing on a solution to exclude the Residual Positions from the Asset Pool at a value to be agreed by the Parties or to otherwise effect a Realisation or deemed Realisation with respect to the Residual Positions that complies with Applicable Laws.

- (b) Should the Parties not reach an agreement within that period, UBS may effect an exclusion of all, but not only part of, the Residual Positions from the Asset Pool by written request to the Confederation (“**Residual Request**”):
 - (i) in accordance with the procedure set out in paragraph (d) of Clause 4.1.2 (including the procedure pursuant to Clause 25) with respect to each Residual Position whose Realisation would, in UBS’ reasonable opinion and having made an assessment of the realistic realisation scenarios in accordance with Good Industry Practice, more likely than not result in a positive Net Loss Amount; and
 - (ii) with respect to (x) each other Residual Position and (y) each Residual Position to which paragraph (i) above applies and the Expert determines that it is less likely than not that the Realisation of this Residual Position would result in a positive Net Loss Amount, the following shall apply:
 - (A) the Covered Asset constituting the relevant Residual Position shall be permanently excluded from the pool of Covered Assets and constitute a Non-Covered Asset; and
 - (B) the amount that would be determined as a Net Loss Amount on any Realisation as determined in accordance with paragraph (a) of Clause 8.1, provided that for these purposes, the reference to the “Net Realisation Proceeds” shall be deemed to be a reference to the (mark-to-market) book value of such Covered Asset as per the end of the last calendar quarter before the date of the Residual Request (as reflected in the Books and Records of the relevant Group Company holding the relevant Covered Asset), shall (x) if such amount is negative, be accounted for as a gain for the purpose of calculating the Shared Loss Amount and (y) if such amount is positive, not be considered for the calculation of the Shared Loss Amount.

8. LOSSES

8.1 Net Loss Amount and Shared Loss Amount

- (a) In respect of each Covered Asset whose Realisation has been completed, the “**Net Loss Amount**” shall be an amount equal to the sum of the following components relating to such Covered Asset (without double-counting):
 - (i) the Initial Valuation;
 - (ii) *minus* the “**Net Realisation Proceeds**” which are equal to:
 - (A) the Gross Realisation Proceeds (if any);
 - (B) *minus* any Gross Realisation Payments (in respect of any Derivatives Instrument);

- (C) *minus* Enforcement Costs; and
 - (D) *minus* Realisation Expenses;
 - (iii) *plus* payables / *minus* receivables resulting from any award in a Permitted Litigation;
 - (iv) *minus* Asset Repayments;
 - (v) *minus* Hedging Benefits;
 - (vi) *plus* Hedging Costs;
 - (vii) *minus* (if the Initial Valuation is higher than the respective CS Book Value) the Initial CS Difference, if the Net Loss Amount would otherwise be positive absent this sub-paragraph (vii) and then only to the extent that the resulting Net Loss Amount would then be equal to or higher than zero;
 - (viii) *plus* (if the Initial Valuation is lower than the respective CS Book Value) the Initial CS Difference, if the Net Loss Amount would otherwise be negative absent this sub-paragraph (viii) and then only to the extent that the resulting Net Loss Amount would then be equal to or less than zero.
- (b) The Net Loss Amount may be a positive or a negative amount (with a negative Net Loss Amount being accounted for as a gain).
 - (c) The loss to be shared by the Parties under this Agreement is the sum of the (positive or negative) Net Loss Amounts of all Covered Assets, denominated in the Base Currency (“**Shared Loss Amount**”).
 - (d) For the purposes of the calculation and determination of the Shared Loss Amount and any components thereof, the following principles shall apply:
 - (i) the relevant amounts have to be paid or received between the Valuation Date and the Realisation Date of the relevant Covered Asset, except for:
 - (A) Gross Realisation Proceeds, which shall account for accruals and future benefits and provisions that can be valued on the date of the Demand for Payment (including, without limitation, with respect to any liquidation proceeds, recoveries and earn-out payments but excluding any accrued interest not yet paid); and
 - (B) Enforcement Costs, which are taken into account if and to the extent that they accrue after the Valuation Date and before the date of the Demand for Payment; and
 - (ii) the Net Loss Amount in respect of each Covered Asset (and any element thereof) shall be converted into the Base Currency at the Applicable Exchange Rate, the Exchange Date being the Realisation Date of such Covered Asset.

8.2 Excluded Losses and Costs

For the purposes of calculating the Net Loss Amount, no amount that qualifies as Excluded Losses and Costs shall be deducted from amounts received, or added to amounts paid or accounted for, by UBS or any Group Company, including where such Excluded Losses and Costs were (implicitly or explicitly) included in the consideration paid in connection with any Realisation.

8.3 Disagreement on the calculation of any Net Loss Amount

If there is a disagreement between the Parties with respect to the calculation of any Net Loss Amount, they shall enter into good faith negotiations for a period of up to 60 days (or such longer period as the Parties may agree) with a view to agreeing on the relevant Net Loss Amount. Should the Parties not reach an agreement within that period, the relevant Net Loss Amount shall be determined in accordance with the procedure pursuant to Clause 25.

9. DRAWDOWN

9.1 Undertaking to pay

Subject to the conditions set forth in this Clause 9 and the other provisions of this Agreement, the Confederation undertakes to pay to UBS a positive amount equal to the lower of (i) the difference resulting from the Shared Loss Amount minus CHF 5,000,000,000 (in words: five billion Swiss francs) and (ii) CHF 9,000,000,000 (in words: nine billion Swiss francs) (such lower amount, “**Guaranteed Amount**”). If the difference resulting from the Shared Loss Amount minus CHF 5,000,000,000 (in words: five billion Swiss francs) is less than zero, the Guaranteed Amount shall be zero.

9.2 Drawdown and FINMA Confirmation

- (a) Following the final Realisations of all Covered Assets, UBS shall be entitled to demand payment from the Confederation of the Guaranteed Amount (“**Demand for Payment**”). The Demand for Payment shall set forth the Net Loss Amount of each Covered Asset, the Shared Loss Amount and the Guaranteed Amount and confirm that the Realisations of all Covered Assets have occurred in compliance with this Agreement.
- (b) Upon receipt of the Demand for Payment, the Confederation shall submit the Demand for Payment without delay to FINMA. Based on the Demand for Payment and such other Information as FINMA may request in accordance with paragraph (b) of Clause 14.1, FINMA shall, based on and in accordance with the Ordinance, issue a written confirmation pursuant to article 14a para. 3 lit. c of the Ordinance (“**FINMA Confirmation**”). FINMA may consult with advisors or other third parties as it deems necessary or desirable for the purpose of making verifications in connection with issuing the FINMA Confirmation and/or reviewing the satisfaction of the requirements set forth in the Ordinance.
- (c) UBS may enforce the issuance of the FINMA Confirmation by submitting the matter to the Federal Administrative Court asking for a decision based on which FINMA is directed to issue the FINMA Confirmation in accordance with this Agreement and the Ordinance.

9.3 Payment of Guaranteed Amount

Upon receipt by the Confederation of (i) a Demand for Payment made in accordance with Clause 9.2 and (ii) the FINMA Confirmation, the Confederation shall pay to UBS the Guaranteed Amount no later than nine months after the date of receipt of the FINMA Confirmation.

PART III ASSET MANAGEMENT

10. ASSET MANAGEMENT

10.1 Asset Management Principles

- (a) UBS shall ensure that (i) the Portfolio of Covered Assets as a whole and (ii) each Covered Asset is, in each case, Managed and Administered at all times and in all respects:
 - (i) in accordance with Applicable Law;
 - (ii) in accordance with the LPG Principles;
 - (iii) diligently and in good faith;
 - (iv) in accordance with the Asset Management Objective;
 - (v) in such a way so as to ensure that there is no prejudice to, discrimination against or disproportionate and adverse effect on the Covered Assets when compared with the management and administration of assets and exposures which are not Covered Assets in comparable situations, save as may be the result of (i) requirements under an LPG Document or (ii) the Covered Assets being non-strategic to UBS;
 - (vi) in accordance with any provisions of the Loss Protection Guarantee and the LPG Documents relating to the Management and Administration of the Covered Assets (including the Asset Management Framework and the Conflicts Management Policy);
 - (vii) in a manner which facilitates compliance with the Monitoring and Reporting Provisions and the Governance and Organisational Provisions; and
 - (viii) in accordance with the banking policies, practices and procedures of UBS or other relevant Group Companies, to the extent consistent with Good Industry Practice.
- (b) In the event of a conflict between the requirements of any of the above sub-paragraphs, the requirements shall apply in the order of priority in which they appear in paragraph (a).

10.2 Hedging

- (a) By no later than 120 days after the Closing Date UBS shall, within the Asset Pool, identify as “**Closely Related Hedges**” in respect of a Covered Asset or group of Covered Assets in the Asset Pool Schedule such assets, agreements, instruments and arrangements existing at the Signing Date that are hedging arrangements, including any credit default swap, FX swap, interest rate swap, credit-linked bond or note, sub-participation agreement, guarantee or similar swap or credit risk mitigant, and which have resulted in the credit and market risk management function of the relevant Group Company or the Group:
- (i) recording a reduction (or not recording an increase) in its credit risk, unhedged credit risk or equivalent measure to any Counterparty with respect to that Covered Asset or group of Covered Assets;
 - (ii) recording an increase (or not recording a reduction) in its credit line, trading line or equivalent measure to any Counterparty with respect to that Covered Asset or Group of Covered Assets; or
 - (iii) otherwise providing for a hedging of an exposure to any relevant market risk (including in particular any FX or rates risk) associated with that Covered Asset or group of Covered Assets,

where such Closely Related Hedge is held in a specific book or other organisational construct under which the specific Covered Assets or group of Covered Assets (along with other assets or liabilities which are not Covered Assets) is maintained.

- (b) For the purposes of the obligations of UBS under the Asset Management Provisions, Closely Related Hedges and Portfolio Hedges shall be treated by UBS in the same manner as Covered Assets.
- (c) UBS shall enter into, and maintain, any hedges required in accordance with UBS’ internal standards for any comparable situations and consistent with Good Industry Practice for the following hedging strategies (which may be external or internal, provided that the Hedging Cost of internal Hedges is at market prices) (“**Hedges**”), having the ability to modify, and replace existing and establish new Closely Related Hedges and Portfolio Hedges, as further set out in a separate hedging policy (“**Hedging Policy**”):

<u>Hedging Strategy</u>	<u>Hedging Activity and Purpose</u>	<u>Hedging Cost / Hedging Benefits</u>
Dynamic	Hedging instruments used to cover market and credit risk of individual Portfolios clearly allocated to Portfolios and executed on a daily basis in liquid markets for portfolio rebalancing and risk management purposes, including, without limitation, FX Specific Risk Portfolio Hedges, including Closely Related Hedges	Costs and Expenses are Hedging Cost Benefits are Hedging Benefits

Macro	Hedging instruments used to cover market or credit risks across Portfolios at balance sheet level	Allocation of Costs and Expenses to Hedging Cost and benefits to Hedging Benefits to the extent these hedges are used to (partially) manage the risks of the Covered Assets using an appropriate allocation mechanism to the covered Portfolios
Close-out	Hedging instruments used to protect against financial risks of a Covered Asset or a Portfolio with the intention to economically close out market or credit risks, provided that such instruments are part of the Business Plan applicable for the relevant Portfolio, including, without limitation, credit protection in a single name loan, bond or CDS position or long term derivative hedges in illiquid markets	Allocation of Costs and Expenses to Hedging Cost and benefits to Hedging Benefits to the extent these hedges are entered into, and maintained, in accordance with this Clause 10.2
FX structural risk	Hedging instruments used with regards to currency exposures other than US\$, to be hedged back to US\$, except for FX Specific Risk Portfolio Hedges	Costs and Expenses to be borne by UBS; benefits to accrue to UBS

10.3 Compliance with Underlying Documentation

Without prejudice to Clause 10.1 (other than paragraph (a)(iv) thereof), UBS' obligations to ensure that the Covered Assets are Managed and Administered in accordance with the Asset Management Objective shall not apply if and to the extent that this would require any member of the Group (or its Representatives) to breach any of the terms of an Underlying Documentation of a Covered Asset in effect at the relevant time if and to the extent that:

- (a) such terms were put into effect at any time before the Signing Date; or
- (b) the formation of such terms, or the amendment which gave rise to them, was effected on or after the Signing Date, but in accordance with the requirements of the LPG Documents (including Clause 10.1).

10.4 Asset Management Framework and Conflicts Management Policy

10.4.1 Establishment of Asset Management Framework and Conflicts Management Policy

UBS shall establish and enact an Asset Management Framework and a Conflicts Management Policy within 90 days after the Closing Date and provide a copy thereof to the Confederation.

10.4.2 Content of Asset Management Framework

Subject to Clause 17.5, UBS shall ensure that the Asset Management Framework:

- (a) is prepared in a way which takes into account the relevant Covered Asset Class or on such other basis as the Confederation may agree with UBS from time to time;
- (b) complies with Applicable Law;
- (c) (unless and to the extent that the Confederation agrees otherwise in writing) is consistent with the other provisions of the LPG Documents (including the Asset Management Objective and the other Asset Management Provisions); and
- (d) sets out:
 - (i) the framework, including internal governance arrangements, for the Management and Administration by UBS and its Group Companies of the Covered Assets (including the management of credit risk in relation thereto); and
 - (ii) procedures for regular review and internal reporting of the Covered Assets.
- (e) The Confederation (acting reasonably) may propose to UBS the adoption in the Asset Management Framework of (additional) appropriate arrangements for enhancing and increasing the level and frequency of review of, and internal reporting in respect of, the Covered Assets and for considering and taking appropriate remedial management steps, as Net Loss Amounts, or the likelihood of any or further Net Loss Amounts, increase (which arrangements may include or be based on any “watch list” or similar systems, controls or processes of UBS and its Group Companies established prior to the Signing Date for the purpose of monitoring distressed assets or exposures), and UBS shall consider and respond to such proposals in good faith.

10.4.3 Content and application of Conflicts Management Policy

- (a) Subject to Clause 17.5, UBS shall ensure that the Conflicts Management Policy:
 - (i) sets out details of the systems, controls and processes (reasonably consistent with UBS’ internal standards for any comparable requirement and consistent with Good Industry Practice) for the purposes of (A) (where possible) avoiding Conflicts; (B) identifying Conflicts as early as possible; (C) monitoring, managing and mitigating Conflicts that arise from time to time; (D) disclosing Conflicts to the Confederation that cannot be avoided and might disadvantage the Confederation; and (E) preventing conduct (whether in relation to a Covered Asset or otherwise) which is intended to circumvent or otherwise avoid (or has the effect of circumventing or otherwise avoiding) the application of the Conflicts Management Policy;
 - (ii) complies with Applicable Law;

- (iii) (unless and to the extent that the Confederation agrees otherwise in writing) is consistent with the other provisions of the LPG Documents (including the Asset Management Objective and the other Asset Management Provisions); and
 - (iv) requires that with respect to any Conflict that is identified, appropriate actions are taken in order to resolve the Conflict and that such actions are recorded in writing.
- (b) The Conflicts Management Policy shall apply in respect of the monitoring, management and mitigation of any Conflicts, irrespective of whether they arose prior to the Signing Date or thereafter.
- (c) The Conflicts Management Policy may be incorporated within the Asset Management Framework or other policies or strategies but shall be subject to the requirements set out in this Clause 10.

10.4.4 Review of Asset Management Framework and Conflicts Management Policy

UBS shall ensure that each of the Asset Management Framework and the Conflicts Management Policy is reviewed no less frequently than annually by the SOC in accordance with the Governance and Organisational Provisions, to determine any modifications thereto that the SOC reasonably considers to be necessary or appropriate for the purpose of ensuring that the Asset Management Framework and the Conflicts Management Policy comply with the Loss Protection Guarantee and the LPG Documents. UBS shall provide the Confederation with each final report on each such review once available.

10.4.5 Arm's length undertaking

UBS will, and shall ensure that each Group Company will, enter into any Hedge between Group Companies and into any Realisation with a Group Company as Covered Asset Purchaser in accordance with UBS' internal standards and at a price which is the same as would be agreed in a comparable transaction between two unrelated parties (market price).

11. TRANSFER OF ASSET MANAGEMENT RESPONSIBILITIES

- (a) UBS shall ensure that no Group Company shall transfer to any person other than a Group Company, whether by way of novation, sub-contract, delegation or otherwise, any duties and responsibilities of the NCL Unit Management Team in connection with the Management and Administration of the Covered Assets except with the prior written consent of the Confederation (such consent not to be unreasonably withheld).
- (b) Any transfer pursuant to this Clause 11 shall be without prejudice to UBS' liabilities, responsibilities, duties and obligations under the LPG Documents.
- (c) For the avoidance of doubt, this Clause 11:
- (i) shall not apply to a transfer of the rights, responsibilities, duties or obligations in connection with the Management and Administration of a Covered Asset if and to the extent that Covered Asset itself (or part thereof) is Realised; and
 - (ii) shall not restrict UBS in outsourcing any non-front office functions.

12. RESTRICTED CONDUCT

- (a) UBS shall not, and shall ensure that no Covered Entity or other Group Company will, enter into any Restricted Conduct relating to a Covered Asset as from the Signing Date unless:
 - (i) the Confederation has given its prior written consent (such consent not to be unreasonably withheld or delayed);
 - (ii) as may be agreed to be permitted in accordance with the Governance Policy; or
 - (iii) until such time as a Governance Policy is implemented in accordance with this Agreement, but not for any such conduct entered into after 90 days after the Closing Date, any such conduct is:
 - (A) in accordance with the banking policies, practices and procedures of UBS or other relevant Group Companies, to the extent consistent with Good Industry Practice;
 - (B) in compliance with UBS' obligation under the LPG Documents to preserve or protect the value of the Covered Assets (or any of them) in line with the LPG Principles; or
 - (C) required in connection with a Realisation or under Applicable Law or under the Underlying Documentation.
- (b) "**Restricted Conduct**" means any conduct relating to a Covered Asset which constitutes or causes:
 - (i) any Specified Action (except for any Realisation);
 - (ii) any release of any Security, guarantee, indemnity or collateral held by, or given for the benefit of, any Covered Entity or other person for a Covered Asset; or
 - (iii) granting any guarantee, indemnity or collateral by any Covered Entity for the benefit of any person which is not a Group Company for a Covered Asset.

PART IV

MONITORING AND REPORTING

13. MONITORING

- (a) UBS shall engage in a constructive, open and transparent dialogue with the Confederation and any relevant Government Entities in relation to the Loss Protection Guarantee and the LPG Documents and UBS' compliance therewith.
- (b) UBS shall act in accordance with its standard internal processes and governance in continuously monitoring and assessing compliance by UBS, the NCL Unit and each other Group Company (and their Representatives) with the LPG Documents, in particular, without limitation, regarding:
 - (i) the Management and Administration of the Covered Assets;

- (ii) the planning, organisation and implementation of Realisations of the Covered Assets;
 - (iii) the provision of information to the Confederation;
 - (iv) planning, organisation and implementation of the governance and organisational requirements; and
 - (v) compliance with covenants and representations.
- (c) UBS shall, and shall ensure that the NCL Unit and any other Group Company will:
- (i) develop and maintain such reporting systems, controls and processes as are reasonably necessary and required under Good Industry Practice to ensure that UBS, the NCL Unit and each other Group Company (and their Representatives) comply with the LPG Documents (including by (i) identifying each Covered Asset as such in its systems and attributes of such Covered Assets which are relevant to compliance with the LPG Documents and (ii) taking all measures necessary to ensure the accurate quantification of payments or other benefits to be received or made in accordance with the LPG Documents), taking into account that the Covered Assets are non-core to UBS; and
 - (ii) ensure that it has the ability to report internally and to the Confederation or any relevant Government Entity on Covered Assets, Closely Related Hedges and Portfolio Hedges on an aggregate basis separately from other assets and exposures.

14. INFORMATION UNDERTAKINGS / REPORTING

14.1 General information obligations

- (a) UBS shall provide to the Confederation:
- (i) such Information in connection with the Loss Protection Guarantee and the LPG Documents as the Confederation may reasonably request from time to time (including, without limitation, in order to be in a position to protect its interests under the LPG Documents); and
 - (ii) access to its Representatives, including, if appropriate, senior management, and enable the Confederation to engage in discussions and ask questions in connection with the Loss Protection Guarantee and the LPG Documents as the Confederation may reasonably request from time to time.

- (b) In addition to the above, in order for FINMA to fulfil its duties under article 14a para. 3 lit. c of the Federal Additional Liquidity Ordinance, UBS shall provide FINMA promptly with all information necessary for its monitoring and confirmation duties. For the avoidance of doubt and independent of the obligations under supervisory law (in particular article 29 FINMASA), UBS will promptly provide FINMA with all information requested, grant it unlimited access to all Books and Records, and allow it at any time to request meetings and conduct interviews at any of UBS' premises.

14.2 Quarterly reporting

14.2.1 Preparation and delivery of Quarterly Statements

Subject to Clauses 14.2.2 to 14.2.5, on or before the date falling 90 days after each Quarter Date (each such date, a "**Quarterly Statement Date**"), UBS shall deliver to the Confederation a Quarterly Statement for that quarter ("**Quarterly Statement Period**").

14.2.2 Initial Quarterly Statement

The first Quarterly Statement shall be provided in respect of the period from (and including) the Valuation Date to (and including) 30 September 2023. That period shall be the "**Quarterly Statement Period**" for the first Quarterly Statement and be treated as a "quarter" for the purposes of these Clauses, and 30 September 2023 shall be the last day of that quarter. The first Quarterly Statement shall be delivered to the Confederation on or before the date falling 90 days after the last date of the relevant quarter (which date shall be the "**Quarterly Statement Date**" for that Quarterly Statement).

14.2.3 QS Compliance

UBS shall deliver to the Confederation, at the same time as it delivers each Quarterly Statement a certificate signed by two senior members of the NCL Unit Management Team confirming that such Quarterly Statement, and any supporting data delivered pursuant to Clause 14.2.1 is, to the best of their knowledge and having made all due and reasonable enquiries, true and accurate, fairly presents the Information it contains and is not misleading for the purpose for which it is prepared.

14.2.4 Contents of Quarterly Statements and Quarterly Statements Data

A "**Quarterly Statement**" means a statement in the agreed form, each of which when taken together with the Quarterly Statement Data delivered at the same time must set out as at the relevant Quarterly Statement Date all Information necessary to verify and evaluate the Net Realisation Proceeds and Net Loss Amounts development, and shall include the following Information:

A. Net Realisation Proceeds

- (a) in respect of each Realisation made on a Covered Asset during the Quarterly Statement Period (and, if there was/were (partial) Realisation(s) of such Covered Assets in previous Quarterly Statement Periods since the Valuation Date, such Realisations for that Covered Asset are to be included within the Net Realisation Proceeds for that Covered Asset):
- (i) details of the Covered Asset to which these Net Realisation Proceeds relate;

- (ii) the Realisation Date;
 - (iii) the US\$ amount of that Net Realisation Proceeds; and
 - (iv) the US\$ amounts and the calculations of the corresponding elements of that Net Realisation Proceeds (i.e. Gross Realisation Proceeds, Gross Realisation Payments, Enforcement Costs and Realisation Expenses); and
- (b) the aggregate US\$ amount of all Net Realisation Proceeds made as well as of all corresponding elements of that Net Realisation Proceeds paid during the Quarterly Statement Period,

provided that, in the case of paragraph (a) and (b) above, if and as long as it is not reasonably practicable for UBS to provide US\$ amounts in respect of the relevant items above due to the limitations of the trading, reporting and data management systems of the Group used for the purpose of producing such information and subject to the relevant reporting remaining transparent and comprehensible, it shall provide the relevant amounts in the Other Currency in which such items are originally denominated.

B. Net Loss Amount(s)

- (a) In respect of each Net Loss Amount that has occurred during the Quarterly Statement Period:
- (i) details of the Covered Asset to which that Net Loss Amount relates;
 - (ii) the date on which each component of that Net Loss Amount occurred;
 - (iii) the US\$ amounts of each component of that Net Loss Amount (and, if the underlying currency of any component of that Net Loss Amount is an Other Currency, these amounts in such Other Currency);
 - (iv) the US\$ amounts and calculations of the corresponding elements of that Net Loss Amount (i.e. Initial Valuation, payables/receiveables from Permitted Litigation, Asset Repayments, Hedging Benefits, Hedging Costs and the Initial CS Difference (if applicable)); and
 - (v) the US\$ amount and the Base Currency amount (converted at the Applicable Exchange Rate, the Exchange Date being the relevant Realisation Date) of the Net Loss Amount and the Applicable Exchange Rate used for such conversion.
- (b) the aggregate amount of the total Shared Loss Amounts (in the Base Currency) that have occurred during the Quarterly Statement Period and the aggregate amount of the total Shared Loss Amounts (in the Base Currency) that have occurred since the Valuation Date.

C. Business Plans

For each Portfolio

- (a) Detailed performance vs. relevant Business Plan, including status and trend analysis of metrics included in the relevant Business Plan;
- (b) P&L reports, including P&L attribution analysis;
- (c) Risk reports;
- (d) Stress testing results; and
- (e) Regulatory capital report.

D. Valuations

Updated valuations of each Covered Asset, such valuations being (i) made as per the end of the relevant calendar quarter, (ii) made on the basis of the same method and principles as applied to the Initial Valuations and (iii) presented in such form and detail as is necessary for the Confederation to reflect the relevant transactions in Covered Assets correctly and timely in its Books and Records in accordance with the International Public Sector Accounting Standards, and other Government Entities (including the SFAO) to exercise their functions in this respect.

E. Hedging

UBS shall provide information and commentary on material matters relating to Hedges pursuant to Clause 10.2, to include, without limitation, a summary of the material risk factors which UBS anticipates will be subject to dynamic hedging and any material information on close-out or macro hedges relating to the Covered Assets.

14.2.5 Corrections

Upon becoming aware of any material incompleteness, error or inaccuracy in any Quarterly Statement or relating to any Quarterly Statement Data, UBS shall notify and document the Confederation with a respective correction.

14.3 Requested Reports

- (a) The Confederation may from time to time (acting reasonably) require UBS to produce and deliver reports containing Information relating to:

Covered Assets

- (i) the application of any Asset Exclusion Criteria on or with respect to any Covered Asset or group of Covered Assets;
- (ii) details of any Realisation of any Covered Asset, group of Covered Assets or Covered Asset Class (including with respect to the nature and quantum of any Net Loss Amount and its components relating to such Covered Asset or group of Covered Assets);

- (iii) any material Hedges entered into in respect of any Covered Assets, group of Covered Assets or Covered Asset Class, in such granularity as is reasonably possible taking into account the nature of the specific hedging strategy applied;
- (iv) Covered Entities to the extent reasonably relevant for the purposes of the Loss Protection Guarantee;
- (v) any events or circumstances which have materially affected the level of Net Loss Amounts and Net Realisation Proceeds in respect of Covered Assets in aggregate or in respect of Covered Assets within particular Covered Asset Classes, and any events or circumstances considered by UBS to be reasonably likely to occur in future periods which could result in a material increase or decrease, as the case may be, in the level of such of Net Loss Amounts and Net Realisation Proceeds when compared with previous periods;

Valuation and Asset Management

- (vi) the valuation (including, without limitation, the Initial Valuation) and performance of any Covered Asset, group of Covered Assets or Covered Asset Class over any period;
- (vii) any circumstances in respect of which the Confederation considers that the Management and Administration of the Covered Assets (or any of them) is failing to comply with the Asset Management Provisions;

Reporting

- (viii) overview on any Report, Quarterly Statement Data or Notification Report provided to the Confederation;
- (ix) any material impact (actual or estimated, as appropriate) of any modifications that have occurred or are proposed to be made to, or failures of or deficiencies in, reporting methodologies or any other systems, processes and controls relating to Covered Assets, Conflicts or the LPG Documents;
- (x) any UBS Standard Reports (including the relevant UBS Standard Reports themselves);

Policies

- (xi) the impact of any material modifications that have been made, or are proposed to be made, to the Asset Management Framework or any Policy or the manner in which any of them is being implemented;

Other

- (xii) Compliance with the LPG Documents (including the systems, controls, processes, practices and policies of UBS and other Group Companies relating to the Covered Assets and Conflicts); or

- (xiii) any consultation with any Authority in relation to any material matter related to or in connection with the Loss Protection Guarantee or the LPG Documents (which may include Information not relating to the Covered Assets or the Loss Protection Guarantee to the extent required in connection with any state aid or other matters within the jurisdiction of the relevant Authority).
- (b) The Confederation may, acting reasonably, require a Requested Report to include a qualitative narrative discussion and analysis in respect of the matters which are the subject of the relevant Report.

14.4 Notification Reports

UBS shall, as soon as reasonably practicable after becoming aware of the relevant matter, give notice and deliver reasonable details to the Confederation of:

- (a) any extraordinary development of the Shared Loss Amount, including, without limitation, if the Net Loss Amounts realised or reasonably likely to be realised in a Realisation of (i) any Covered Asset, (ii) any group of Covered Assets or (iii) any Covered Asset Class is materially higher than expected;
- (b) any (not already reported) Conflict which could have a material impact on (i) any Covered Asset, (ii) any group of Covered Assets or (iii) any Covered Asset Class;
- (c) the occurrence of any Termination Event and the existence of any circumstances that it considers will or are reasonably likely to result in a Termination Event;
- (d) the occurrence of any Level 1 to Level 4 Trigger Event or circumstance that it considers will or is likely to result in the occurrence of any such event; and
- (e) any material Litigation being commenced by any third party (including any Authority) against any Group Company which UBS reasonably considers is likely to have a material adverse effect on (i) any material Covered Asset, (ii) any group of Covered Assets or (iii) any Covered Asset Class (and a description of that effect), or which UBS reasonably considers is likely to result in UBS or any other Group Company becoming unable to perform any of its material obligations under the LPG Documents (it being understood that Litigation between a Group Company and an Counterparty in relation to a Covered Asset shall not, of itself, require disclosure under this paragraph (e)).

14.5 Format of Information and Information Procedures

- (a) If and to the extent that any Information required to be produced or delivered to the Confederation or any relevant Government Entity on or before a day pursuant to the LPG Documents constitutes Information which UBS or any other Group Company is required by Applicable Law or Accounting Standards to publish, issue or release on or before that day or include in any reports or accounts published, issued or released by UBS or any other Group Company on or before that day, then UBS shall ensure that any such Information produced or delivered to the Confederation or any relevant Government Entity is prepared to at least the same standard as would be required for such publication, issue, release or inclusion.

- (b) Any Reports and Information shall be produced or delivered in the format specified in the LPG Documents or, if no such format has been so specified (or agreed between the Parties from time to time), in such a format as the Confederation reasonably considers appropriate for the purposes for which the relevant Information is required to be produced or delivered (taking into account any limitations of the trading, reporting and data management systems of the Group used for the purpose of producing any relevant Reports and Information to the extent reasonable in view of the importance of the Report and Information and the size and nature of the Loss Protection Guarantee). Any Requested Reports shall be delivered to the Confederation within 30 days upon request.
- (c) If the Confederation or UBS proposes any modification to a specified or agreed format for production or delivery of any Report, the Parties shall consult with each other in good faith (acting reasonably) to seek to agree such modification.
- (d) Each of the Parties shall liaise with each other in relation to any requests for, and the delivery of any, information to be delivered under or in connection with the LPG Documents and shall seek to establish suitable procedures for logging and tracking any information requests and deliveries.
- (e) The Confederation acknowledges that Information provided pursuant to this Clause 14 may contain estimates or statements of opinion or statements which relate to events or which depend on circumstances outside the control of the Group, or which may be of a subjective nature or subject to different interpretations (such estimates or statements only to the extent that they so relate and/or to the extent only that they are subjective or subject to different interpretations, “**Good Faith Statements**”). No liability will attach to any Group Company or its Representatives under any LPG Document in respect of any Good Faith Statement which is honestly held (to the extent it constitutes an opinion), given in good faith and prepared with reasonable skill and care, having made all due and reasonable enquiries.

14.6 Obligation to disclose

Notwithstanding any other provision of any LPG Document, neither UBS, nor any member of the Group, nor any of their Affiliates, nor any of their Representatives shall be obliged to disclose any information where such disclosure would be in breach of any Applicable Law or any contractual provision (where such contractual provision was reasonably required to enable a Realisation), except if and to the extent required by Swiss Applicable Law.

14.7 Continuing obligations

The rights and obligations pursuant to paragraph (a) of Clause 14.1, Clause 14.3 and Clause 14.5 are continuing and shall survive and remain binding for a period of 24 months from the payment of the Guaranteed Amount by the Confederation in accordance with the terms of this Agreement provided that during this time they shall only apply in respect of any information that the Confederation could have reasonably requested in respect of obligations of UBS in respect of this Agreement prior to such payment being made (taking into account the passage of time between such obligation and the request for information).

15. ASSURANCE PLAN

- (a) By no later than 31 March 2024, UBS shall deliver to the Confederation, and thereafter maintain, an assurance plan (in a manner which is reasonably consistent with UBS' internal standards for any comparable requirement) which is reasonably satisfactory to the Confederation ("**Assurance Plan**") for a regular review by its internal audit or risk function and, to the extent that UBS considers appropriate, external auditors or other contractors, of:
 - (i) the adequacy of the systems, controls, processes, practices and policies of UBS and other Group Companies for ensuring compliance with the LPG Documents; and
 - (ii) whether, and the extent to which, any Group Company has failed to comply with the LPG Documents.
- (b) The Assurance Plan shall be reviewed by UBS' internal audit or risk function (and, to the extent considered appropriate by UBS, external auditors or other contractors) as per paragraph (a) of this Clause 15 (i) for as long as the pro forma Shared Loss Amount is less than CHF 3,000,000,000 (in words: three billion Swiss francs), every two years, but in any case in the year during which such threshold is met, and (ii) thereafter, annually. The first review of the Assurance Plan shall take place in the calendar year 2024.
- (c) UBS shall prepare and deliver to the SOC and the Confederation, by no later than 30 June in each year in which a review of the Assurance Plan has to take place pursuant to paragraph (b), a report that sets out the results of the review conducted in accordance with the Assurance Plan and any changes to the systems, controls, processes, practices and policies of the members of the Group or other measures which UBS intends to implement, following such review, in order to ensure that it complies with the LPG Documents ("**Assurance Report**").

PART V

AUDIT AND INVESTIGATION

16. AUDIT AND INVESTIGATION RIGHTS OF THE CONFEDERATION

16.1 General audit and investigation rights

- (a) The Confederation and the SFAO (acting in its own right) shall at any time have the right to conduct any audit, investigation or review of, or in relation to, any or all of the following:
 - (i) compliance by UBS or any other Group Company with its obligations under the LPG Documents;
 - (ii) any Reports or other Information provided or delivered pursuant to the LPG Documents or otherwise in connection with the Loss Protection Guarantee;
 - (iii) the payments made or to be made pursuant to the LPG Documents;

- (iv) the Covered Assets and the application of any Asset Exclusion Criteria on such Covered Assets;
 - (v) the Initial Valuations of the Covered Assets and subsequent valuation updates pursuant to sub-paragraph D. (*Valuations*) of Clause 14.2.4;
 - (vi) Realisations and the development of the Shared Loss Amount;
 - (vii) governance;
 - (viii) Conflicts (in particular, without limitation, in each case to the extent necessary to monitor compliance with the LPG Documents);
 - (ix) any other aspect of the Loss Protection Guarantee or the LPG Documents; and
 - (x) any other aspect of the business, financial condition and affairs of any Group Company to the extent that the Confederation considers it necessary (acting reasonably) in connection with monitoring the operation of, and risks relating to, the Loss Protection Guarantee and the Covered Assets or otherwise in connection with the LPG Documents.
- (b) The scope and duration of any such audit, investigation or review shall be determined by the Confederation or the SFAO (in its own right) (acting reasonably). UBS shall bear all external costs and expenses of any such audit, investigation or review in accordance with Clause 21.2.
 - (c) Any such audit, investigation or review shall, where appropriate in the opinion of the Confederation or the SFAO (in its own right), be coordinated with FINMA and its general supervisory activities. FINMA's own supervisory audit, investigation or review rights, and similar rights of other Government Entities, remain reserved and are unaffected by the Confederation's and the SFAO's audit rights in connection with the Loss Protection Guarantee.
 - (d) UBS shall, and shall ensure that the NCL Unit and each Group Company will, subject to the LPG Principles, cooperate in all respects with any such audit, investigation or review, and shall make available to the Confederation such Representatives, premises and Information as the Confederation and its Representatives may reasonably require in connection with such audit, investigation or review, always subject to UBS' confidentiality obligations.
 - (e) In connection with such audit or investigation, UBS shall, and shall ensure that the NCL Unit and each other Group Company will:
 - (i) permit the Representatives of the Confederation to visit UBS' premises and examine any Books and Records relating to the Covered Assets and provide electronic copies thereof (upon the Confederation's request in an electronic virtual data room, including, without limitation, maintaining the Virtual Data Room or making alternative, equivalent arrangements during the lifetime of the Loss Protection Guarantee), pursuant to the obligations under Clause 14;

- (ii) discuss with any such Representative of the Confederation any aspect of such Books and Records as the Confederation may request, and answer any questions that may be raised as part of such discussions; and
- (iii) provide the Representatives of the Confederation access to such of its Representatives, facilities and office space at UBS' premises, IT and other systems, and other resources as the Confederation may require for that purpose.

16.2 Appointment of Monitors

- (a) If the Confederation has reason to believe that UBS is in any material respect not in compliance with this Agreement or any other LPG Document, it may ask any competent Federal authority to appoint a monitor. If such authority refuses to appoint such monitor, the Parties shall discuss in good faith alternative solutions for a period of up to 60 days (or such longer period as the Parties may agree). If the Parties cannot agree on an alternative solution, the Confederation may appoint an appropriate employee or official of the Confederation ("**Monitors**") to attend meetings of any corporate body, committee or other forum of UBS or any other Group Company dealing with aspects of the Loss Protection Guarantee and request such information as it reasonably deems necessary for the purpose of enabling the Confederation to monitor UBS' compliance with its obligations under the Loss Protection Guarantee. UBS shall ensure that any Monitors are permitted to attend such meetings. Clause 32 shall apply *mutatis mutandis* to Monitors.
- (b) If the Confederation notifies UBS that it wishes Monitors to attend any meeting pursuant to paragraph (a), UBS shall give the Confederation and the Monitors the same period of notice of the time, date and location for such meetings as is given to the members of the relevant body, committee or other forum and UBS shall send to the Confederation and the Monitors copies of all documents circulated for the purposes of such meetings and all minutes of those meetings at the same time as they are sent to such members.
- (c) The Monitors may, but shall not be required or obliged to, speak or participate in any way in any such meeting but shall have no voting rights.

PART VI

GOVERNANCE AND ORGANIZATIONAL REQUIREMENTS

17. GOVERNANCE

17.1 Establishment of NCL Unit

- (a) UBS shall, by no later than the date of publication of the next quarterly financial statements immediately following the Signing Date, establish a separate organisational unit for the purpose of the implementation, administration and compliance with UBS' obligations under this Agreement and the other LPG Documents.
- (b) The NCL Unit shall be maintained by UBS for the lifetime of the Loss Protection Guarantee.

17.2 Establishment of Policies

UBS shall establish and enact a Governance Policy, subject to the prior written consent of the Confederation (such consent not to be unreasonably withheld or delayed) within 90 days after the Closing Date and provide a copy thereof to the Confederation.

17.3 Governance and Organisation of NCL Unit

- (a) UBS shall establish a governance and organisation structure of the NCL Unit that is appropriate, efficient and sufficient to implement the LPG Principles.
- (b) UBS shall ensure that the NCL Unit manages and administers the Covered Assets at all times and in all respects in compliance with the principles set forth in Clause 10.1 and in accordance with this Agreement.
- (c) UBS shall establish and maintain the governance structure of the NCL Unit as required under this Agreement and the Governance Policy, providing in particular for:
 - (i) a senior oversight committee or body (“**SOC**”) with direct access to the senior management of UBS, which has the competence and responsibility for the ultimate management of the NCL Unit and the independent oversight and supervision of the NCL Unit Management Team, in each case in respect of the Covered Assets;
 - (ii) a management team in charge of the day-to-day management and responsibility for the operations of the NCL Unit (“**NCL Unit Management Team**”); and
 - (iii) rules to prevent adverse effects due to any Conflicts.
- (d) The Confederation shall have the right to appoint, at its election, one (if the SOC consists of less than five members) or two (if the SOC consists of five or more members) members or observers to the SOC.
- (e) UBS shall consult the Confederation before any Realisation relating to, or which is reasonably likely to relate to, a Major Transaction.
- (f) The Governance Policy shall provide for governance rights in relation to the NCL Unit, including materiality thresholds and other qualifications for decisions to be taken in connection with Realisations at the level of the SOC.

17.4 Enhanced Oversight

- (a) At any time following the occurrence of a Level 1 Trigger Event, a Level 2 Trigger Event, a Level 3 Trigger Event or a Level 4 Trigger Event, the Confederation shall have the right to request (acting reasonably) from UBS, upon reasonable notice, to document and explain material events that contributed to the occurrence of that trigger event and measures taken and envisaged to be taken by UBS in relation to such Portfolio(s) to address these adverse developments.

- (b) If a Level 2 Trigger Event was mainly triggered by a material breach by UBS of a Policy and/or of a material provision of this Agreement and/or Applicable Law, the Confederation shall have the right to provide UBS with proposals of a (revised) Business Plan which complies with the LPG Principles proposing changes in the business strategy in relation to each Portfolio, together with the relevant Loss Budgets adapted accordingly, which proposal UBS shall consider in good faith and not unreasonably refuse.
- (c) If a Level 3 Trigger Event was mainly triggered by a material breach by UBS of a Policy and/or of a material provision of this Agreement and/or Applicable Law, the Confederation shall have the right to provide UBS with proposals of a (revised) Business Plan which complies with the LPG Principles proposing changes in the business strategy in relation to the Covered Assets in the aggregate and for each Portfolio, together with Loss Budgets adapted accordingly, which proposal UBS shall consider in good faith and not unreasonably refuse.
- (d) If a Level 4 Trigger Event was mainly triggered by a material breach by UBS of a Policy and/or of a material provision of this Agreement and/or Applicable Law, the Confederation shall have the right to:
 - (i) provide UBS with proposals of a (revised) Business Plan which complies with the LPG Principles proposing changes in management and business strategy in relation to the NCL Unit or the Covered Assets in the aggregate and for each Portfolio, together with Loss Budgets adapted accordingly, which proposal UBS shall consider in good faith and not unreasonably refuse; and/or
 - (ii) review the Governance Policy and provide UBS with proposals of a revision in compliance with the LPG Principles, in particular expanding rights or lowering applicable thresholds, including, without limitation, require that any Specified Action relating to any Covered Asset be, subject to the prior approval of the SOC, which proposal UBS shall consider in good faith and not unreasonably refuse.

17.5 Adoption of further Policies; Modifications to Asset Management Framework and Policies

- (a) The Confederation may propose to UBS the adoption of any policy or any other guidelines or the amendment of any Policy, which proposal UBS shall consider in good faith and not unreasonably refuse; in case of any proposal by the Confederation based on results reported in an Assurance Report or for other particular reasons as explained to UBS, UBS shall explain to the Confederation its reasons if it does not implement such proposal.
- (b) No material modification to the Asset Management Framework or any Policy shall be adopted or implemented unless:
 - (i) UBS has given notice to the Confederation of the proposed modification;

- (ii) the proposed modification has been approved in writing by the SOC; and
 - (iii) if a Level 4 Trigger Event has occurred: the proposed modification has been approved by the Confederation in advance in writing (such approval not to be unreasonably withheld or delayed).
- (c) Upon the occurrence of a Level 4 Trigger Event, the Confederation, acting reasonably following consultation with UBS and taking reasonably into account market conditions as well as the expenses, costs and time (to be) incurred by UBS in connection with such adoption or implementation and the size and nature of the Loss Protection Guarantee, may propose the adoption or implementation of such modifications to the Asset Management Framework and/or any Policy as it sees fit, which proposal UBS shall consider in good faith and not unreasonably refuse.

18. ORGANISATIONAL REQUIREMENTS

18.1 Sufficient resources for NCL Unit

UBS undertakes to provide the NCL Unit with sufficient resources (financial and otherwise) to ensure compliance by UBS with its obligations under the LPG Documents.

18.2 Right of intervention

If the Confederation determines that UBS does not comply with its obligations under Clause 18.1, it shall notify UBS and the Parties shall enter into good faith negotiations for a period of up to 60 days (or such longer period as the Parties may agree) with a view to agreeing on any remedial action. Should the Parties not reach an agreement within that period, the procedure pursuant to Clause 25 shall apply.

19. REMUNERATION

With respect to the obligations of UBS in connection with its compensation structure in view of the Loss Protection Guarantee, reference is made to the 2023 Remuneration Decree. Upon a corresponding request of the Confederation, UBS shall, within a reasonable time period following such request, provide to the Confederation the details of the content of its compensation system addressing the obligations of UBS pursuant to the 2023 Remuneration Decree.

PART VII
REPRESENTATIONS AND WARRANTIES AND COVENANTS

20. REPRESENTATIONS

20.1 Initial Representations

Each Party (with respect to itself) makes the following representations and warranties to the other Party on the Signing Date:

20.1.1 Status

UBS is a corporation, duly incorporated and validly existing under the law of its jurisdiction of incorporation and has the power to own its assets, and to carry on its business as it is being conducted.

20.1.2 Binding obligations

The obligations expressed to be assumed by it in the LPG Documents are, subject to any general principles of law limiting such obligations, legal, valid, binding and enforceable obligations.

20.1.3 Non-conflict with other obligations

The entry into and performance by it of, and the transactions contemplated by, the LPG Documents do not conflict with:

- (a) any Applicable Law; or
- (b) in the case of UBS, its constitutional documents.

20.1.4 Power and authority

It has the power to enter into, perform and deliver, and has taken all necessary action to authorise its entry into, performance and delivery of, the LPG Documents to which it is a party and the transactions contemplated by such LPG Documents.

20.1.5 Authorisations

All Authorisations required:

- (a) to enable it lawfully to enter into, exercise its rights and comply with its obligations under the LPG Documents; and
- (b) make the LPG Documents admissible in evidence in Switzerland,

have been obtained or effected and are in full force and effect.

20.2 Repeating Representations

UBS represents and warrants to the Confederation on each date a Quarterly Statement is provided to the Confederation in accordance with Clause 14.2 and on each date a Report is provided to the Confederation, in each case by reference to the facts and circumstances then existing, as follows:

- (a) Any factual Information contained in each Quarterly Statement and each Report was true and accurate in all material respects and not misleading as at the date of such Quarterly Statement or Report containing the Information or (as the case may be) as at the date the Information is expressed to be given; and
- (b) the Quarterly Statement Data and the financial Information contained in any Quarterly Statement have been prepared in accordance with UBS' Accounting Standards for its consolidated financial statements.

PART VIII

FEES

21. FEES, COSTS AND EXPENSES

21.1 Guarantee fees

- (a) UBS shall pay to the Confederation:
 - (i) a non-recurring fixed set-up fee (“**Set-up Fee**”) in the amount of CHF 40,000,000 payable in two equal instalments on 30 June and on 30 September 2023, serving as compensation to the Confederation for the set up of the Loss Protection Guarantee;
 - (ii) a maintenance fee (“**Maintenance Fee**”) in the amount of CHF 36,000,000 per annum, payable on a pro rata basis in arrears in equal instalments on each Quarter Date during the Maintenance Fee Calculation Period and on the last day of the Maintenance Fee Calculation Period; and
 - (iii) an annual drawn portion fee (“**Drawn Portion Fee**”) in Swiss francs computed at the “**Drawn Portion Fee Rates**” (as set forth in the table below), calculated on the amount of CHF 9,000,000,000 as at each Quarter Date for each quarter within the Drawn Portion Fee Calculation Period, on a pro rata basis in the case of broken quarters, in which the Relevant Loss Amount is within the range set forth opposite the respective Drawn Portion Fee Rate.

<u>Relevant Loss Amount</u>	<u>Drawn Portion Fee Rate</u>
> CHF 3 billion and ≤ CHF 5 billion	0.40% per annum
> CHF 5 billion and ≤ CHF 6 billion	0.80% per annum
> CHF 6 billion and ≤ CHF 7 billion	1.20% per annum

> CHF 7 billion and ≤ CHF 8 billion	1.60% per annum
> CHF 8 billion and ≤ CHF 9 billion	2.00% per annum
> CHF 9 billion and ≤ CHF 10 billion	2.40% per annum
> CHF 10 billion and ≤ CHF 11 billion	2.80% per annum
> CHF 11 billion and ≤ CHF 12 billion	3.20% per annum
> CHF 12 billion and ≤ CHF 13 billion	3.60% per annum
> CHF 13 billion and ≤ CHF 14 billion	4.00% per annum

The accrued Drawn Portion Fee is payable on the date of payment of the Guaranteed Amount by the Confederation pursuant to Clause 9.3 and shall exclusively be settled by set-off against the Guaranteed Amount paid by the Confederation. In case no Demand for Payment is submitted or no payment of the Guaranteed Amount is made by the Confederation in accordance with this Agreement, the Drawn Portion Fee shall not become due and payable.

(b) For the purpose of this Clause 21:

“Drawn Portion Fee Calculation Period” means the period from and including 1 October 2023 to and including the date of the submission of the Demand for Payment in accordance with paragraph (a) of Clause 9.2.

“Maintenance Fee Calculation Period” means the period from and including 1 October 2023 to and including the earlier of (i) the date of a Demand for Payment and (ii) the effectiveness of the termination of this Agreement pursuant to Clause 22.

“Relevant Loss Amount” means the aggregate of the Shared Loss Amount and the Unrealised Loss Amount, in each case as per the relevant Quarter Date and for the last (pro rata) quarter as per the last day of the Drawn Portion Fee Calculation Period.

“Unrealised Loss Amount” means, as per any Quarter Date (and for the last (pro rata) quarter as per the last day of the Drawn Portion Fee Calculation Period) and with respect to all Covered Assets which were not subject to a Realisation as per such Quarter Date (or as per the last day of the Drawn Portion Fee Calculation Period), the amount in the Base Currency (with each underlying US\$ amount converted into the Base Currency at the Applicable Exchange Rate on the relevant Quarter Date (or as per the last day of the Drawn Portion Fee Calculation Period)) that would be determined as a Net Loss Amount on any Realisation as determined in accordance with paragraph (a) of Clause 8.1, provided that for these purposes where the (mark-to-market) book value of such Covered Asset (as reflected in the Books and Records of the relevant Group Company holding the relevant Covered Asset and in line with the principles set forth in paragraph (b)(iii) of Clause 5.3) as per such Quarter Date (or as per the last day of the Drawn Portion Fee Calculation Period):

(i) is a positive, such value shall be applied as “Gross Realisation Proceeds” for the purposes of subparagraph (ii) of paragraph (a) of Clause 8.1 (and the Gross Realisation Payments in respect of such Covered Asset shall be deemed to be zero for the purposes of sub-paragraph (ii)); and

- (ii) is a negative, such value shall be applied as “Gross Realisation Payments” for the purposes of subparagraph (ii) of paragraph (a) of Clause 8.1 (and the Gross Realisation Proceeds in respect of such Covered Asset shall be deemed to be zero for the purposes of sub-paragraph (ii)).

If the Unrealised Loss Amount as so calculated is negative, it shall be accounted for as a gain for the purpose of calculating the Relevant Loss Amount, and if such amount is positive, it shall be accounted for as a loss for the purposes of calculating the Relevant Loss Amount.

21.2 Costs and Expenses

21.2.1 Costs of UBS

UBS shall bear (or shall procure that other Group Companies and their respective Affiliates will bear) all of the costs and expenses incurred by UBS, any other Group Company and their respective Affiliates arising out of or in connection with the Loss Protection Guarantee and/or the LPG Documents.

21.2.2 Costs of FINMA and additional costs of the Confederation

- (a) UBS undertakes vis-à-vis FINMA in the sense of article 112 para. 2 of the CO (*echter Vertrag zugunsten eines Dritten*) to pay to FINMA within the timeline set out in paragraph (c) below the amounts of any and all Transaction Costs pursuant to paragraphs (a), (c) and (d) of the definition of “Transaction Costs” incurred by FINMA.
- (b) If the Transaction Costs incurred by the Confederation (including the SFAO) in 2023 exceed the amount of the Set-up Fee or if the Transaction Costs incurred by the Confederation (including the SFAO) in any other calendar year exceed the amount of the Maintenance Fee payable in such calendar year, UBS shall, within the timeline set out in paragraph (c) below, pay to the Confederation an amount equal to the amount by which the Transaction Costs in the respective calendar year exceed the amount of the Set-up Fee or the Maintenance Fee (as applicable) payable in such calendar year. Transaction Costs incurred by the Confederation in connection with the procedure set out in paragraph (b) of Clause 4.1.1 during the 90 day period set forth in such paragraph shall fall into the Set-up Fee.
- (c) Any payments pursuant to paragraph (a) or paragraph (b) shall be settled within 30 days upon submission to UBS of an invoice or invoices by FINMA or the Confederation, as applicable. UBS will confirm to FINMA or the Confederation, as the case may be, the contact details and (if applicable) reference numbers for such invoices.
- (d) UBS confirms and agrees that the management of FINMA’s and the Confederation’s external advisors is the sole responsibility of FINMA and the Confederation and UBS shall neither directly nor otherwise seek to influence the work of FINMA’s or the Confederation’s advisors. For confidentiality and conflict of interests reasons, other than a copy of the invoice issued to FINMA or the Confederation, no Information with respect to the services rendered or to be rendered to FINMA and the Confederation in connection with the LPG Documents and the Loss Protection Guarantee will be provided to UBS or its advisors.

- (e) The cost reimbursement obligations pursuant to this Clause 21.2.2 shall not prejudice any other cost reimbursement obligations of UBS pursuant to Applicable Law.

PART IX
REMEDIES

22. TERMINATION

22.1 Termination Event

A termination event (“**Termination Event**”) occurs if:

- (a) (i) there is an intentional breach by UBS of any of the following obligations (and, with respect to a breach of the obligation set forth in sub-paragraph (a)(i)(E), such breach takes place repeatedly):
- (A) failure to prepare and deliver the information specifically requested by the Confederation under paragraph (a) or (b) of Clause 7.6 within 60 days upon first request in relation to a Realisation that is a Material Transaction or a Major Transaction, as applicable; or
 - (B) failure to prepare and deliver a Quarterly Statement in accordance with Clause 14.2; or
 - (C) failure to prepare and deliver an Assurance Report in accordance with paragraph (c) of Clause 15; or
 - (D) refusal to comply with the obligation to respond to specific information requests by the Confederation, SFAO or FINMA under paragraph (d) of Clause 16 within 60 days upon first request; or
 - (E) refusal to consult with the Confederation in accordance with paragraph (e) of Clause 17.3; or
 - (F) failure to pay any of the fees when they become due under Clause 21;
- (ii) the Confederation duly notifies UBS of that breach and threatens the occurrence of a Termination Event; and
- (iii) the breach is continuing and remains unremedied by UBS and unwaived by the Confederation for a period of 90 days starting from the Confederation’s notice to UBS set out in sub-paragraph (ii); or
- (b) UBS moves, or resolves to move, its headquarters outside of Switzerland.

22.2 Partial termination

- (a) On and at any time after the occurrence of a Termination Event which is continuing, but which relates solely to a particular Covered Asset, or to a group of Covered Assets or to a Portfolio, the Confederation may deliver to UBS a “**Partial Termination Notice**”, in respect of that Covered Asset, or group of Covered Assets or Portfolio (as applicable). A Partial Termination Notice must state that it constitutes a Partial Termination Notice and specify:
 - (i) the matter, event or circumstance giving rise to the Termination Event; and
 - (ii) the Covered Asset, group of Covered Assets or Portfolio (as relevant) to which the Termination Event relates and which the Confederation (subject to Clause 22.3) is designating as “Partial Termination Assets” (the Covered Asset, or group of Covered Assets or Portfolio so designated being “**Partial Termination Assets**”).
- (b) If a Partial Termination Notice is delivered by the Confederation to UBS, then each Covered Asset or group of Covered Assets or Portfolio designated therein as a Partial Termination Asset shall be permanently excluded from the pool of Covered Assets and constitute Non-Covered Assets with immediate effect.
- (c) As an alternative to the delivery to UBS of a Partial Termination Notice, the Confederation may (at its sole discretion) elect to deliver a suspension notice with respect to a particular Covered Asset, or to a group of Covered Assets or to a Portfolio, in which case there shall be deemed no Shared Loss Amount in respect of such Covered Asset, or group of Covered Assets or Portfolio until such time as the breach has been remedied in a manner satisfactory to the Confederation.

22.3 Full termination

- (a) On and at any time after the occurrence of a Termination Event which is continuing and which does not relate solely to a particular Covered Asset, or to a group of Covered Assets or to a Portfolio, the Confederation may deliver to UBS a “**Full Termination Notice**”. A Full Termination Notice must state that it constitutes a Full Termination Notice and specify the matter, event or circumstance giving rise to the Termination Event.
- (b) If a Full Termination Notice is delivered by the Confederation to UBS, the obligations of the Parties under the LPG Documents shall, unless expressly stated otherwise in this Agreement, terminate with immediate effect.

22.4 Voluntary termination by UBS

- (a) UBS may, at any time before it has delivered a Demand for Payment, deliver to the Confederation a “**Voluntary Termination Notice**”. A Voluntary Termination Notice must state that:
 - (i) it constitutes a Voluntary Termination Notice; and

- (ii) UBS wishes to terminate the obligations of the Parties under the LPG Documents.
- (b) If a Voluntary Termination Notice is delivered by UBS to the Confederation, the obligations of the Parties under the LPG Documents shall, unless expressly stated otherwise in this Agreement, terminate with immediate effect.

23. DEFAULT INTEREST

- (a) If UBS or the Confederation fails to pay any sum payable by it under an LPG Document on the due date for payment, interest (“**Default Interest**”) shall accrue on that sum at a rate which is equal to five (5) per cent. for the period from (and including) the date from which default interest becomes due and payable in accordance with article 24 of the SubA to (but excluding) the date of actual payment of that sum (both before and after judgment).
- (b) Default Interest shall accrue from day to day and be calculated on the basis of the actual number of days elapsed and a year of 365 days.

24. REMEDIES AND WAIVERS

- (a) No delay or omission by either Party in exercising any right, power or remedy provided by law or under or pursuant to any LPG Document shall (i) affect that right, power or remedy or (ii) operate as a waiver of it, and where no period of the exercise of a right is provided for, such right may be exercised at any time.
- (b) The single or partial exercise by either Party of any right, power or remedy provided by law or under or pursuant to any LPG Document shall not, unless otherwise expressly stated, preclude any other or further exercise of it or the exercise of any other right, power or remedy.
- (c) The exercise by either Party or any of their respective Representatives of any discretion under the terms of the LPG Documents (including in respect of any consent, approval, waiver or agreement that may be given under any LPG Document) shall in no way limit the manner in or extent to which that discretion may be exercised in future or (save as otherwise agreed in writing between the Parties) give rise to any amendment or modification to the LPG Documents or any rights or obligations thereunder.
- (d) Any right of any person under any LPG Document is cumulative and not exclusive of any other right (whether provided under any LPG Document, by law or otherwise), except and to the extent that any such exclusion is expressly stated in the LPG Documents.

PART X
DISPUTE RESOLUTION

25. DISPUTE RESOLUTION

25.1 Notice, internal escalation and resolution among Parties

- (a) If a dispute arises between the Parties and this Agreement stipulates that the procedure pursuant to Clause 25 shall apply, the Confederation and/or UBS shall inform each other as soon as reasonably practicable in writing of such dispute (“**Notice of Dispute**”). Each Party shall upon receipt of such Notice of Dispute provide the other Party with written details of the dispute, the facts and related provision(s) of the LPG Documents in connection with which the dispute has arisen, the nature of the dispute, the Covered Entities and Covered Assets relevant to that dispute (where relevant) and the resolution sought.
- (b) The head of the NCL Unit Management Team (for UBS) and the Deputy Director of the Federal Finance Administration (for the Confederation) shall seek to meet each other as soon as reasonably practicable once a Notice of Dispute was delivered and endeavour to resolve such dispute and any questions related to it in good faith within 10 Business Days (or such other time period as the Parties may agree) from the date of the Notice of Dispute.
- (c) If the head of the NCL Unit Management Team and the Deputy Director of the Federal Finance Administration are for any reason unable to resolve the dispute within the timeframe provided in paragraph (b) or mutually agree to directly escalate the dispute, such dispute shall be referred upon request by any of them to the SOC (for UBS) and the Director of the Federal Finance Administration (for the Confederation) who shall endeavour to resolve the dispute in good faith within 30 Business Days (or such other time period as the Parties may agree) upon expiry of the time period provided in paragraph (b) or the mutual agreement to escalate, as applicable. In case the Confederation has appointed a Representative to the SOC in accordance with paragraph (d) of Clause 17.3, or a Monitor in accordance with paragraph (a) of Clause 16.2, such Representative or Monitor shall not attend or participate in discussions of UBS about such dispute.
- (d) This agreement to negotiate in accordance with paragraphs (b) and (c) in the event of a dispute is binding and creates enforceable obligations. All discussions and meetings between the Parties in connection with such dispute are to be “without prejudice”, and the details of the discussions and any meetings, minutes and/or statements relating to such meetings shall be inadmissible in any court or other proceedings that may follow.

25.2 Submission to Expert

- (a) If the SOC and the Director of the Federal Finance Administration have not resolved a dispute within the timeframe of paragraph (c) of Clause 25.1, and the disputes relates to any disputed fact in relation to this Agreement, either Party may in addition to and without prejudice to Clause 25.6, propose to submit the relevant disputed question (“**Expert Question**”) to an Expert for assessment and final determination.

(b) If the Confederation and UBS cannot agree on an Expert within 10 Business Days upon expiry of the time period provided in paragraph (c) of Clause 25.1, the Confederation and UBS shall each designate one person that has the quality of an Expert and those two persons so designated shall agree on an Expert. Any Expert shall be independent and impartial in the meaning of article 34 of the Federal Act on the Federal Supreme Court (*Bundesgesetz über das Bundesgericht*) (SR 173.110).

25.3 Expert determination

Following the appointment of an Expert in accordance with Clause 25.2:

- (a) The Confederation and UBS shall have the right to make representations and submissions to the Expert. The Party proposing the appointment of an Expert shall file a statement with all the documents on which it relies within 20 Business Days of the appointment of the Expert and the other Party shall thereafter also file its counter-statement with all the documents on which it relies within 20 Business Days. The Expert shall decide on the further procedure, taking care that both Parties are given equal opportunity to present their point of view.
- (b) The Expert may request any data, Information, submissions or other work papers, schedules, certificates and other documents which he/she/it considers necessary for the determination to be made in connection with the Expert Question and, as determined by the Expert, the Confederation and/or UBS shall comply with such requests as soon as reasonably practicable, except if (and to the extent that) doing so would breach any Applicable Law or contractual obligation. All data, Information, submissions or other documents supplied to the Expert by UBS shall be copied simultaneously to the Confederation and vice versa. When making requests, the Expert shall at all times respect the equal treatment and right to be heard of both parties.
- (c) The Expert shall make the determination on the Expert Question in writing and giving reasons for that determination, as soon as practicable and, in any event, within 60 Business Days following its appointment.
- (d) Analogous to an expert (*Schiedsgutachter*) determination according to article 189 of the Swiss Code of Civil Procedure (*Schweizerische Zivilprozessordnung*), the Expert's determination on the Expert Question shall be final and binding on the Parties unless the Expert's determination on the Expert Question has been stated in a prejudiced manner or is manifestly incorrect or there existed any ground for recusal against the Expert.
- (e) The costs and expenses of the Expert shall be borne equally by the Confederation and UBS.
- (f) All data, Information, submissions and other documents supplied to the Expert shall be strictly confidential and not be used by the Expert, UBS or the Confederation for any other purpose other than the determination of the relevant Expert Question(s). Any such data, Information, submissions and other documents may be disclosed (i) to the Confederation or UBS' Representatives, (ii) if required under Applicable Law or by the rules of any relevant securities exchange, (iii) for the purpose of enforcement of any determination of the relevant Expert Question(s) or (iv) in accordance with other provisions of this Agreement permitting disclosure.

25.4 Inability to resolve Expert Question

If the Expert relinquishes its appointment or if it becomes apparent that it will be unable or unwilling to complete the duties specified in its appointment, the Confederation and UBS may agree in writing to appoint an alternative Expert. For such appointment, Clause 25.2 shall apply *mutatis mutandis*.

25.5 Privileged Information

Nothing in this Clause 25 shall entitle the Confederation, UBS or the Expert to access any Information or document which is protected by legal professional privilege, provided that neither the Confederation nor UBS shall be entitled to refuse access to such part or parts of documents which are not protected by such legal professional privilege.

25.6 Court proceedings and other urgency measures reserved

- (a) If the SOC and the Director of the Federal Finance Administration have not resolved a dispute within the timeframe of paragraph (c) of Clause 25.1, either Party shall have the right to initiate court proceedings regarding such dispute.
- (b) A Party shall always have the right to initiate court or other proceedings or to perform any other act without having to comply with the procedure provided for under this Clause 25 if such initiation of court or other proceedings or the performance of such other act is required to safeguard any of such Party's rights or to comply with any of such Party's obligations, such as in particular, but not limited to, to interrupt a statute of limitations or meet a statutory deadline or any other time limit imposed by a competent court or authority.

**PART XI
TAXATION**

26. VALUE ADDED TAXES

Each sum (including any sum payable pursuant to Clause 21) payable by UBS under or in connection with the LPG Documents is expressed exclusive of any amount in respect of VAT which is chargeable on any supply or supplies for which such sum (or any part thereof) is the whole or part of the consideration for VAT purposes. If the Confederation or any Government Entity, in connection with the LPG Documents, makes (or is deemed to make) any supply for VAT purposes in consideration for such sum (or any part thereof) and VAT is or becomes chargeable in respect of such supply, UBS shall promptly pay to the Confederation or such Government Entity an additional sum equal to the amount of such VAT. If UBS, in connection with the LPG Documents, makes (or is deemed to make) any supply for VAT purposes and VAT is or becomes chargeable in respect of such supply, UBS shall bear such VAT unless such VAT is recoverable by the Confederation or the relevant Government Entity (as applicable) receiving the supply.

PART XII
MISCELLANEOUS

27. RESERVATION OF RIGHTS AND OBLIGATIONS

The rights and obligations of the Parties under this Agreement (including, without limitation, under Clause 32) shall be without prejudice to any rights or competencies of the Confederation, any Government Entity or any government office or obligations of UBS or any other Group Company under any supervisory laws and other Applicable Law, which rights, competencies and obligations remain reserved in all respects.

28. CONFIRMATION OF EFFECTIVENESS

The Confederation undertakes to confirm to UBS, upon a corresponding request of UBS, on the fourth anniversary of the Signing Date and thereafter every four years to be bound by its obligations under the LPG Documents.

29. NATURE OF PARTIES' RIGHTS AND OBLIGATIONS

The obligations of the Parties hereunder are contractual in nature and the Parties agree that they do not form, and this Agreement shall not be deemed to constitute, a simple partnership (*einfache Gesellschaft*) pursuant to art. 530 et seq. CO (as the case may be, applied as public law).

30. PAYMENT MECHANICS

30.1 Currency of account

- (a) Subject to paragraphs (b) and (c), each payment under this Agreement shall be made in Swiss francs.
- (b) Each payment in respect of costs, expenses or Taxes shall be made in the currency in which the costs, expenses or Taxes are incurred, or, at the election of the Confederation, in Swiss francs.
- (c) Any amount expressed in this Agreement to be payable in a currency other than Swiss francs shall be paid in that other currency.

30.2 No set-off

Any matured obligation due under Clause 9.3 may be set off against any obligation due and payable under Clause 21 (and *vice versa*). Other than that, all payments required to be made by any person under any LPG Document shall be made without (and free and clear of any deduction for) set-off or counterclaim.

30.3 Business Days

Any payment under the LPG Documents which is due to be made on a day that is not a Business Day shall be made on the next Business Day in the same calendar month (if there is one) or the preceding Business Day (if there is none).

30.4 Accounts

- (a) Payments to the Confederation shall be made to such account as may be notified to UBS in writing by the Confederation from time to time.
- (b) Payments to UBS shall be made to such account as may be notified to the Confederation by UBS from time to time.
- (c) Any change in the account or account details for payment shall be notified to the party required to make the payment. Any such change shall take effect on the date falling five Business Days after such notice is delivered or, if later, the date specified in the notice.

31. ASSIGNMENTS AND TRANSFERS

Except if otherwise provided in this Agreement or any other LPG Document, no person may assign any of its rights or transfer any of its rights and obligations under the LPG Documents, neither by way of a (partially) universal succession (*(partielle) Universalsukzession*) pursuant to the Swiss Merger Act nor otherwise.

32. CONFIDENTIAL INFORMATION

32.1 Confidentiality

32.1.1 Confidentiality and limits on use

- (a) Except (w) as expressly set forth in this Agreement or any other LPG Document (including, without limitation, to the extent required for any Party to enforce or safeguard any of its rights under any LPG Document or to initiate the procedure pursuant to Clause 25), (x) as permitted or provided for under any Applicable Law (including, without limitation, the Ordinance and any Swiss banking and supervisory laws), (y) with respect to the Confederation, as is customary in the business between Government Entities, government offices, the Federal Council and/or the Federal Assembly and its commissions or (z) with the prior consent of the other Party, each Party receiving Confidential Information (“**Receiving Party**”) from the other Party or any of such Party’s Affiliates or its or their Representatives (collectively, “**Disclosing Party**”) shall:
 - (i) keep any and all Confidential Information of the Disclosing Party strictly confidential and protect the Confidential Information of the Disclosing Party against disclosure in at least the manner and with at least the degree of care, but not less than a reasonable degree of care, with which it protects its own confidential information of such nature;
 - (ii) not disclose, or otherwise make available any Confidential Information of the Disclosing Party or any of its Affiliates to anyone; and
 - (iii) not use any Confidential Information of the Disclosing Party for any purpose other than in connection with the Loss Protection Guarantee and/or any rights and obligations under any LPG Document or any other purpose as agreed between the Parties from time to time or, with respect to the Confederation, as is required by the legal mandate of any Government Entity or government office receiving Confidential Information.

- (b) Notwithstanding the above, the Confederation may disclose Confidential Information of UBS or its Affiliates if permitted or provided for under any Applicable Law (including, without limitation, the Ordinance and any Swiss banking and supervisory laws) to other Government Entities or government offices (including SNB, FINMA, SFAO, the Federal Assembly and its commissions), and its and their Representatives.

32.1.2 Non-confidential information

The obligations set forth in this Clause 32 shall not apply to Confidential Information that:

- (a) is or becomes part of the public domain without breach of confidentiality obligations by the Receiving Party or its Representatives;
- (b) was already lawfully in possession of the Receiving Party (including, with respect to the Confederation, any Government Entity or government office (including the SNB, FINMA, the SFAO, the Federal Assembly and its commissions)) or its or their Representatives prior to disclosure by the Disclosing Party and free of any restrictions as to its use or disclosure, as evidenced by written records;
- (c) was legally received from any third party without breach of confidentiality obligations by that third party or its Representatives;
- (d) was independently developed by or has only been used as a basis of notes and analyses prepared by the Receiving Party (including, with respect to the Confederation, any Government Entity or government office (including the SNB, FINMA, the SFAO, the Federal Assembly and its commissions)) or its Representatives; or
- (e) the Disclosing Party (including, with respect to the Confederation, any Government Entity or government office (including the SNB, FINMA, the SFAO, the Federal Assembly and its commissions)) has notified the Receiving Party or its Representatives in writing, is not of a confidential nature.

32.1.3 Required disclosure

- (a) Subject to paragraph (b), in the event that the Receiving Party or its Representatives are requested or required to disclose pursuant to any Applicable Law or by order or decree of any court or tribunal of competent jurisdiction, all or any part of the Confidential Information (a “**Disclosure Requirement**”), the Receiving Party shall, and shall cause its Representatives to, to the extent permissible by the Disclosure Requirement (or, for the avoidance of doubt, other Applicable Law):
 - (i) provide the Disclosing Party with prior written notice as promptly as reasonably practicable of any such Disclosure Requirement, including the details and timing of such request;

- (ii) provide the Disclosing Party with a list of the Confidential Information (and, if applicable, the text of the disclosure language itself) that is intended to be disclosed in response to such Disclosure Requirement and, where possible, consult and cooperate with the Disclosing Party regarding any action that the Disclosing Party may reasonably request from the Receiving Party or its Representatives, including to challenge the validity or to limit the scope of the Disclosure Requirement or the content, timing and manner of such disclosure and to take into account all reasonable requirements of the Disclosing Party in relation thereto; and
 - (iii) disclose only that portion of the Confidential Information that is the minimum legally required or requested to be disclosed (which may be based on legal advice obtained) and to use reasonable efforts to obtain assurances that confidential treatment will be accorded to such disclosed Confidential Information.
- (b) Paragraph (a) shall not apply to any disclosure pursuant to paragraph (b) of Clause 32.1.1 or the Ordinance or applicable banking or supervisory laws (or, for the avoidance of doubt, other Applicable Law) which shall be permissible without any restrictions except as set forth in the Ordinance or such banking, supervisory laws or other Applicable Law.

32.1.4 Securities and other applicable laws and confidentiality obligations

Each Party acknowledges and agrees that:

- (a) some or all of the Confidential Information is or may be price-sensitive information and that the use of such information may be regulated and prohibited by Applicable Law relating to insider trading, including the FinMIA, and it shall not, shall direct its Representatives not to, disclose nor use any Confidential Information for any unlawful purpose nor to trade in any securities or any other financial instruments of any person in contravention of any Applicable Law;
- (b) a breach of this Clause 32 may constitute a breach of applicable banking, business or official/professional secrecy or data protection laws or regulations; and
- (c) a breach of this Clause 32 may also give rise to claims by third parties towards which the Disclosing Party is under a confidentiality obligation,

provided that in case of each of paragraph (a) and (b), the obligations in this Clause 32 will survive the termination of this Agreement for such longer duration as under such Applicable Law.

32.2 Miscellaneous

32.2.1 No rights conferred

The Parties expressly acknowledge and agree that disclosure of Confidential Information does not and shall not be deemed to confer any rights whatsoever upon the Receiving Party, its Affiliates or its or their Representatives in respect of the Confidential Information disclosed hereunder, and the Disclosing Party shall retain all proprietary and other rights in the Confidential Information.

32.2.2 Third party rights

The Receiving Party's obligations under this Clause 32 shall be owed only to the Disclosing Party. The Parties do not require the consent of any person having such right when making any amendments to this Clause 32 or any other provision of this Agreement at any time.

32.2.3 No waiver of privilege

The Receiving Party acknowledges and agrees that to the extent that any Confidential Information is protected by legal professional privilege, disclosing such Confidential Information to the Receiving Party or any of its Representatives does not constitute a waiver of privilege or any other rights which the Disclosing Party may have in respect of such Confidential Information. Subject to Applicable Law, the Receiving Party further acknowledges and agrees that it will assert such privilege in response to any attempt to compel disclosure of the Confidential Information.

32.2.4 Entire agreement

This Clause 32 constitutes the entire agreement between the Parties in relation to their obligations under the LPG Documents regarding Confidential Information and supersedes any previous agreement, whether express or implied, regarding Confidential Information, including the Confidentiality Agreements (but without prejudice to any accrued rights or obligations under the Confidentiality Agreements at the date of termination).

32.2.5 Continuing obligations

The obligations in this Clause 32 are continuing and shall survive and remain binding on each Party for a period of 24 months from the earlier of:

- (a) any termination of this Agreement (including, without limitation, in accordance with Clause 22.3 or Clause 22.4); and
- (b) the payment of the Guaranteed Amount by the Confederation in accordance with the terms of this Agreement.

33. DATA PROTECTION

- (a) If and to the extent that the Confederation or any of its Representatives is or becomes a Data Controller in respect of any Personal Data which forms part of any Information provided by UBS pursuant to this Agreement ("**Relevant Personal Data**"), then
 - (i) the Confederation or its Representative (as applicable) shall not disclose Information to third parties in response to a Data Subject access request unless (and to the extent) it reasonably considers that it is obliged to do so by Applicable Law. In any case, the Confederation or its Representatives (as applicable) shall ensure to not disclose Confidential Information in response to a Data Subject access request and maintain secrecy with regard thereto;
 - (ii) prior to the date on which such response must be made pursuant to Applicable Law, the Confederation shall consult with UBS for a period of no less than five Business Days (or for a longer period if reasonably necessary) and take into account all reasonable representations made by UBS concerning whether such disclosure is required and the form of that disclosure;

- (iii) where the Confederation or its Representative reasonably considers that such disclosure is required by Applicable Law, the Confederation shall remove or redact Information and Confidential Information from the material to be disclosed to the fullest extent it reasonably considers permissible or required under Applicable Law; and
 - (iv) if the Confederation determines that disclosure pursuant to Applicable Law is required and UBS has objected to such disclosure or its extent, the Confederation shall give UBS as much prior notice as is reasonably practicable prior to such disclosure being made.
- (b) UBS shall as soon as reasonably practicable (and shall ensure that each relevant Group Company will) provide to each of its or their clients and counterparties in respect of which a Group Company, acting as the Data Controller, holds Personal Data (“**Relevant Persons**”) under Applicable Law including in particular the purposes for which they may process Relevant Personal Data together with such other information as may be necessary under the FADP (and any equivalent obligation under any other Applicable Law) in respect of their processing of Relevant Personal Data pursuant to this Agreement, including to satisfy the obligations of the Confederation and its Representatives. It is the intention of the Parties that the Information to be provided to Relevant Persons pursuant to this Clause 33 shall, to the extent that it is in accordance with Applicable Law, be included as part of the general communications between the relevant Group Company and the Relevant Persons made in the ordinary course of such Group Company’s business.
- (c) To the extent that the Confederation’s exercise of its rights under this Agreement would cause it or any of its Representatives to be subject to any Applicable Law of a jurisdiction other than Switzerland that imposes obligations:
- (i) in respect of the use of Information the same as or similar to Personal Data; or
 - (ii) which are similar in nature to any of those in the FADP but which apply to any Information relating to Relevant Persons that forms part of any Information provided by any Group Company pursuant to this Clause 33,

UBS shall (and shall procure that each Group Company will) do all such things as required and allowed by Applicable Law in order to ensure that access to and use of the Information by the Confederation and its Representatives in accordance with this Agreement complies with that Applicable Law. Without prejudice to the foregoing, UBS shall notify the Confederation of the requirements of any such Applicable Law (to the extent they relate to the Confederation and any of its Representative’s access to and use of the Information in accordance with this Agreement) and shall discuss with it the steps that it intends to take, and shall keep the Confederation informed of the steps it does take, to comply with this Clause 33.

- (d) UBS acknowledges and agrees that nothing in this Agreement shall result or be deemed to result in any Group Company, on the one hand, and the Confederation or any of its Representatives, on the other, becoming joint Data Controllers with respect to any Personal Data and accordingly neither the Confederation nor any of its Representatives shall have any liability with respect to any breach of the obligations of any Group Company as a Data Controller from time to time, and nor shall any Group Company have any liability with respect to any breach of the obligations of the Confederation or any of its Representatives as a Data Controller from time to time (other than to the extent that any such breach of one Party or its Representative's obligations is caused by a violation of the other Party's obligations under this Agreement or an LPG Document).
- (e) To the extent applicable, the provisions of article 6 of the Ordinance and the provisions of any other Swiss Applicable Law relating to the subject matter of this Clause 33 remain reserved.

34. NOTICES AND COMMUNICATION

34.1 Notices and declarations in writing or text form

Any communication to be made under or in connection with the LPG Documents with legal effect, in particular any notices or declarations pursuant to this Agreement, shall be in writing or in text form by e-mail, registered mail or by courier.

34.2 Language

- (a) Any communication or document under or in connection with the LPG Documents with legal effect must be in English.
- (b) Communications or documents without legal effect may be in another language, but either Party may request a certified English translation which will prevail unless the document is a constitutional, statutory or other official document.

34.3 Addresses

The address and email address (and the department or officer, if any, for whose attention the communication is to be made) of each Party for any communication or document to be made or delivered under or in connection with the LPG Documents is:

- (a) for notices to the Confederation:
Federal Department of Finance
Bundesgasse 3
3003 Bern
Switzerland
For the attention of: Deputy Director Federal Finance Administration
E-Mail: EFV-Direktionssekretariat@efv.admin.ch
- (b) for notices to UBS:
UBS AG, London Branch (on behalf of UBS Group AG)
5 Broadgate, London
EC2M 2QS United Kingdom
For the attention of: Non-Core Unit, UBS Group
E-Mail: OL-NCL-Guarantee@ubs.com

or any substitute or additional address or e-mail address or department or officer as the Party may notify to the other Party by not less than five Business Days' notice, either in general or for particular subjects or purposes.

34.4 Delivery

Any communication or document made or delivered by one person to another under or in connection with the LPG Documents will only be effective:

- (a) if by way of e-mail, when it has been received by the addressee; and
- (b) if by way of registered mail or courier (in each case return receipt requested), when it has been delivered by the postal services or the courier to this address or, where applicable, seven days after the first unsuccessful delivery attempt to this address.

35. PUBLICITY

- (a) Subject to paragraph (b), to the extent permitted under Applicable Law and to the extent practicable in the opinion of the relevant Party, each Party shall consult the other Party before disclosing any LPG Document or making any public statement with respect to the Loss Protection Guarantee.
- (b) The Parties shall use their best efforts to ensure that the content of **Schedules 3–6** is not disclosed in any public filings or other public disclosures.

36. INDEPENDENT ADVICE

- (a) UBS acknowledges and agrees that neither the Confederation, nor any Government Entity nor any of their respective Representatives is acting as agent or fiduciary of any member of the Group or any of its Affiliates, or any of their respective Representatives. In addition, UBS acknowledges that neither the Confederation, nor any Government Entity nor any of their respective Representatives is advising any member of the Group or any of its Affiliates, or any of their respective Representatives, as to any financial, legal, Tax, investment, accounting or regulatory matters in any jurisdiction. Neither the Confederation, nor any Government Entity nor any of their respective Representatives shall have any responsibility or liability to any member of the Group or any of its Affiliates, or any of their respective Representatives, with respect thereto.
- (b) In the negotiation of this Agreement, each Party has received advice from its own attorneys and advisers. The language used and the content agreed in this Agreement is the language and content chosen by the Parties to express their mutual intent, and no provision of this Agreement shall be interpreted for or against any Party because that Party or its attorney drafted the respective provision.

37. PARTIAL INVALIDITY

If, at any time, any provision of the LPG Documents is or becomes illegal, invalid or unenforceable in any respect under any law of any jurisdiction, neither the legality, validity or enforceability of the remaining provisions nor the legality, validity or enforceability of such provision under the law of any other jurisdiction will in any way be affected or impaired. In this case, the Parties shall negotiate in good faith a substitute provision that best reflects the economic intentions of the Parties without being illegal, invalid or unenforceable, and shall execute all agreements and documents required in this connection; whereby it is expressly understood that nothing in this provision shall restrict any right of the Parties to exercise any of its rights under any LPG Document. The same shall apply *mutatis mutandis* in case of omissions.

38. ENTIRE AGREEMENT AND CONFLICTS

- (a) This Agreement, including the Schedules and any other agreements and documents referred to herein, constitute the entire agreement and understanding among the Parties with respect to the subject matter hereof, and shall supersede all prior oral and written agreements or understandings of the Parties relating hereto. All references to this Agreement shall be deemed to include the Schedules hereto.
- (b) In case of an inconsistency between any of the provisions of this Agreement and any other LPG Document, the provisions of this Agreement shall prevail.

39. AMENDMENTS AND WAIVERS

- (a) Any term of, or right under, the LPG Documents (including this Clause 39) may be amended or waived only with the written consent of each Party.
- (b) If any Party considers at any time that (i) the operation, interpretation or application of any provision of the LPG Documents is in conflict with the LPG Principles, (ii) any provision of the LPG Documents contains a manifest error, (iii) any provision of the LPG Documents does not include such content as is required to ensure that it achieves its intended purpose, (iv) a threshold is not adequate in view of its intended purpose (as it applies in too few instances or in too many instances) or (v) it is necessary to modify any provision of an LPG Document or to introduce a new provision into the LPG Documents in order for the LPG Documents to properly reflect the original intention of the Parties on the basis of the LPG Principles or to take account of any Change in Law (each, an “**LPG Document Inaccuracy**”), such Party shall notify the other Party in writing of such LPG Document Inaccuracy (such notice, a “**Modification Notice**”). Following receipt of a Modification Notice, the Parties shall enter into good faith negotiations (for a period of up to 40 Business Days) with a view to agreeing on any amendments or modifications to the provisions of the LPG Documents (or any of them) the Parties deem necessary to take into account and correct the LPG Document Inaccuracy referred to in such Modification Notice, taking into account the limited information available at Signing Date and the limited time available to negotiate this Agreement.
- (c) Following (i) the fourth anniversary of the Signing Date and (ii) the Realisation of Covered Assets corresponding to more than 70% of the aggregate amount of the Initial Valuations of all Covered Assets, the Parties shall discuss in good faith whether any amendments or modifications shall be made to the provisions of the LPG Documents (or any of them) in light of any changed circumstances.

40. COUNTERPARTS AND CONCLUSION OF CONTRACT

- (a) Each LPG Document may be executed in any number of counterparts, and this has the same effect as if the signatures on the counterparts were on a single copy of the LPG Document.
- (b) Each LPG Document may be concluded by an exchange of signed signature pages, attached as an electronic photocopy (.pdf, .tif, etc.) to e-mail.

PART XIII

GOVERNING LAW AND JURISDICTION

41. GOVERNING LAW

This Agreement and the rights, benefits and obligations of the Parties hereunder are of public law nature (*öffentlich-rechtlicher Natur*) and shall be governed by and construed in accordance with substantive public law of Switzerland (i.e. with the exception of conflict of law rules). The provisions of the CO apply subsidiarily as public law.

42. JURISDICTION

In case of any dispute, claim or controversy arising under, out of or in connection with or related to this Agreement (or subsequent amendments thereof), including, without limitation, disputes, claims or controversies regarding its existence, validity, interpretation, performance, breach or termination, the Federal Administrative Court decides based on a claim pursuant to article 35 para. a of the Swiss Federal Act on the Federal Administrative Court (*Bundesgesetz über das Bundesverwaltungsgericht*) of 17 June 2005 (SR 173.32). The admissibility of appeals against judgements of the Federal Administrative Court is determined in accordance with the general provisions on the federal administration of justice (*richtet sich nach den allgemeinen Bestimmungen über die Bundesrechtspflege*).

SCHEDULE 1

Definitions Schedule

“**2023 Remuneration Decree**” means the decree of the Federal Finance Administration dated 23 May 2023 regarding the ordering of measures in the area of compensation pursuant to article 10a of the Banking Act.

“**Accounting Standards**” means (i) IFRS and (ii) any other accounting standards generally accepted in the jurisdiction of incorporation of the relevant person and approved by the relevant regulatory or other accounting bodies in that jurisdiction and which apply in respect of that person.

“**Affiliate**” means, in relation to any person, a Subsidiary of that person or a Holding Company of that person or any other Subsidiary of that Holding Company.

“**Agreement**” means this agreement including all its Schedules.

“**Applicable Entity**” means (a) any member of the Group and (b) any entity that would be consolidated into the balance sheet of the Group if such balance sheet were to be prepared in accordance with the Static Accounting Standards.

“**Applicable Exchange Rate**” means, with respect to an amount denominated in any Other Currency, the relevant spot rate as determined according to usual market practice.

“**Applicable Law**” means any and all law (whether civil, criminal or administrative), statutes, statutory instruments, treaties, conventions, regulations or rules made thereunder in any applicable jurisdiction, including any rules of any Authority, in each case which are binding on any Party or the relevant other person or in respect of the relevant matter as the context requires.

“**Asset Exclusion Criteria**” has the meaning given to it in paragraph (a) of Clause 4.1.2.

“**Asset Management Framework**” means a written Policy designated as such and setting out the details referred to in Clause 10.4.2.

“**Asset Management Objective**” means, subject to the LPG Principles, in first priority to minimise the Net Loss Amounts and in second priority to maximise the expected net present value of the Covered Assets, including by minimising losses and potential losses and maximising recoveries and potential recoveries in respect thereof.

“**Asset Management Principles**” means the principles set forth in Clause 10.1.

“**Asset Management Provisions**” means the provisions regarding asset management set forth in **Part III** (*Asset Management*).

“**Asset Pool**” has the meaning given to it in paragraph (a) of Clause 4.1.1.

“**Asset Pool Schedule**” has the meaning given to it in paragraph (a) of Clause 4.1.1.

“**Asset Repayments**” means an amount (positive or negative) equal to the sum of any repayments which are received (in which case, positive) or paid (in which case, negative), as the case may be, by any Group Company in connection with a Covered Asset, including repayment of capital, principal or reserves which are received or paid on or after the Valuation Date.

“**Assurance Plan**” has the meaning given to it in paragraph (a) of Clause 15.

“**Assurance Report**” has the meaning given to it in paragraph (b) Clause 15.

“**Authorisations**” means authorisations, consents, approvals, resolutions, licenses, exemptions, filings, notarisations, registrations, orders, recognitions, grants, confirmations, clearances and permissions.

“**Authority**” means (i) any government, (ii) any governmental or quasi-governmental authority, body, agency or association, (iii) any supranational, federal, state or local government, (iv) any statutory, regulatory or self-regulatory body, agency or association, (v) any body, agency or association having the power to impose, collect or administer any Tax and (vi) any court, tribunal or other judicial body.

“**Banking Act**” means the Federal Act on the Banks and Saving Banks (*Bundesgesetz über die Banken und Sparkassen (Bankengesetz, BankG)*) of 8 November 1934 (SR 952.0).

“**Base Currency**” means CHF.

“**Books and Records**” has the meaning given to it under Swiss law and includes all notices, correspondence, orders, enquiries, drawings, plans, books of account and other documents and all computer disks or tapes or other machine-readable programs or other records.

“**Business Day**” means a day other than a Saturday or Sunday on which banks are open for general business in Zurich and Berne, Switzerland.

“**Business Plan**” means the business plan agreed upon between the Parties in accordance with Clause 6.

“**Change in Law**” means the occurrence of any of the following after the Signing Date:

- (a) the enactment or coming into effect of any Applicable Law;
- (b) any amendment, supplement, restatement, re-enactment or replacement of any Applicable Law (whether carried out by primary or secondary legislation or otherwise);
- (c) the publication or announcement by any Authority, following the Signing Date of a change in, or clarification of, the interpretation or application of any Applicable Law; or
- (d) any decision of any court, tribunal or other judicial body relating to the interpretation or application of any Applicable Law,

other than (i) the coming into effect of any Applicable Law (or any amendment, supplement, restatement, re-enactment or replacement thereof) which was enacted, or published or announced in final form, prior to the Signing Date with a commencement date after the Signing Date and (ii) any decision referred to in paragraph (d) above which was made prior to the Signing Date but which takes effect after the Signing Date.

“**CHF**” and “**Swiss francs**” denote the lawful currency of Switzerland.

“**Clause**” means any clause in this Agreement.

“**Closely Related Hedge**” has the meaning given to it in paragraph (a) of Clause 10.2.

“**Closing Date**” means the date of the Closing of the Merger.

“**Closing of the Merger**” means the entry of the Merger in the competent commercial register.

“**CO**” means the Swiss Code of Obligations (*Bundesgesetz betreffend die Ergänzung des Schweizerischen Zivilgesetzbuches (Fünfter Teil: Obligationenrecht)*) of 30 March 1911 (SR 220).

“**Confederation**” means the Swiss Confederation, represented by the Federal Department of Finance (*Eidgenössisches Finanzdepartement*).

“**Confederation Confidential Information**” means (i) all Information relating directly or indirectly to the Confederation or any of its Representatives which any Group Company or its Representatives receives or shall have received from the Confederation, any of its Representatives or any third party who has received the Information from the Confederation or any of its Representatives in connection with this Agreement (including all such Information which any Group Company or any of its Representatives prepares which contains or reflects or is generated from such Information); and (ii) all Information relating to or arising from negotiations, discussions and correspondence in connection with the Agreement between (i) the Confederation or any of its Representatives and (ii) any Group Company or any of its Representatives.

“**Confidential Information**” means Confederation Confidential Information and/or UBS Confidential Information.

“**Confidentiality Agreements**” means (i) the confidentiality agreement between the Confederation and CSG dated 4 April 2023 and (ii) the confidentiality agreement between the Confederation and UBS dated 6 April 2023.

“**Conflict**” means any actual or potential conflict of interests (whether in respect of assets, exposures, rights, interest, duties, liabilities, obligations, risks or otherwise) which may be material (a) between the Confederation and any Group Company, (b) within the Group, (c) between a Group Company and any Counterparty or (d) between a Group Company and any Covered Asset Purchaser.

“**Conflicts Certificate**” means a certificate that:

- (a) identifies the relevant Covered Asset;
- (b) confirms that all agreements, transactions or arrangements entered into or effected either (i) in connection with the Management and Administration of that Covered Asset or (ii) which constitute, create or give rise to any Conflict with respect to that Covered Asset, in either case during the period from and including the Closing Date to and including the Realisation Date (“**relevant period**”) in respect of that Covered Asset were commercially fair and reasonable and on arm’s length terms;
- (c) confirms that UBS has complied with the Conflicts Management Policy and the provision of this Agreement regarding Conflicts in relation to that Covered Asset at all times during the relevant period; and

- (d) is signed by the Head of the NCL Unit Management Team (or another member of the NCL Unit Management Team acceptable to the Confederation) and confirms that to the best of his or her knowledge and belief, having made all due and reasonable enquiries, the Conflicts Certificate is true and accurate, fairly presents the Information it contains and is not misleading for the purpose for which it is prepared.

“**Conflicts Management Policy**” means a written Policy enacted as such in accordance with this Agreement.

“**Control**” means the ability of a person to determine that the affairs of another person are conducted in accordance with the intentions of the first person by way of (i) the holding of shares or other equity securities; (ii) the possession of voting, appointment or instruction rights; or (iii) in any other way whatsoever (in each case whether directly or indirectly). A person will be conclusively deemed to “control” another person if it holds, directly or indirectly, more than 50% of the voting rights entitled to be cast for the appointment of directors or similar managers. “**Controlled**” and “**Controlling**” shall be construed accordingly.

“**Costs and Expenses**” means any external actual expenses paid by any Group Company, including reasonable third party advisory fees, but excluding any Taxes, VAT or Stamp Duty.

“**Counterparty**” means:

- (a) in relation to any asset or exposure, a person with an obligation under the terms of that asset or exposure (whether present or future, actual or contingent and as principal, surety, guarantor or otherwise) to pay or repay money to, or for onward transmission to, the person which Owns or otherwise holds that asset or exposure or to whom payments of that asset or exposure are otherwise due, but excluding any person to the extent acting:
- (i) as lender, facility agent, arranger, security trustee, security agent or other finance party with respect to a facility agreement;
 - (ii) as holder, trustee, security trustee, security agent, fiscal agent, paying agent, calculation agent, servicer, collateral agent, collateral manager, collateral administrator, cash manager or liquidity provider with respect to a debt instrument; or
 - (iii) in a capacity which is analogous to those referred to in sub-paragraphs (i) and (ii) above; and
- (b) in relation to any asset or exposure, a person with a right under the terms of that asset or exposure (whether present or future, actual or contingent) to be paid or repaid money from the person which Owns or otherwise holds that asset or exposure; and
- (c) in relation to any asset or exposure which is a share, equity security or equity interest, the issuer.

“**Covered Asset Class**” means the following mutually exclusive classes of Covered Assets to which each Covered Asset shall be allocated in the Asset Pool Schedule: (i) residential mortgage, (ii) consumer finance, (iii) bond, (iv) loan, (v) lease finance, (vi) project finance, (vii) leveraged finance, (viii) commercial real estate finance, (ix) structured finance or (x) derivatives, (xi) equity, (xii) FX, (xiii) securitization or (xiv) life.

“**Covered Asset Purchaser**” means the counterparty or group of counterparties acting as purchaser(s) under a Realisation Documentation.

“**Covered Assets**” mean assets and exposures of the Asset Pool, to the extent they have not ceased to form part of the Asset Pool pursuant to the terms of the LPG Documents, and excluding in any case any Non-Covered Assets, and “**Covered Asset**” means one of those assets or exposures.

“**Covered Entity**” means any legal entity that (i) at the Closing Date was a Wholly Owned member of the CS Group and (ii) continues to be a Wholly Owned Merged Group Company at the time of the Realisation of any Covered Asset Owned by such legal entity, in each case excluding any Excluded Entity.

“**CS Book Value**” means the valuation of any relevant asset in CSG’s accounts as of 31 March 2023.

“**CS Group**” or “**CS Group Companies**” means CSG and each of its Subsidiaries, from time to time, and “**CS Group Company**” means any of them.

“**CSG**” means Credit Suisse Group AG (CHE-105.884.494).

“**Data Controller**” means private persons or federal bodies that decide on the purpose and content of a data file.

“**Data Subject**” has the meaning given to “data subject” in the FADP.

“**Default Interest**” has the meaning given to it in paragraph (a) of Clause 23.

“**Demand for Payment**” has the meaning given to it in paragraph (a) of Clause 9.2.

“**Derivatives Instrument**” means any Covered Asset which is an instrument that may be an asset or exposure (and which is not an instrument under the terms of which the relevant holder shall only receive payments, such as a security, note, fully drawn loan or similar instrument) under whose terms the relevant Covered Entity may incur a liability, such as a derivative, a commitment under a loan agreement or other similar instrument (and which is not a Hedge).

“**Disclosing Party**” has the meaning given to it in paragraph (a) of Clause 32.1.1.

“**Disclosure Requirement**” has the meaning given to it in paragraph (a) of Clause 32.1.3.

“**Drawn Portion Fee**” has the meaning given to it in paragraph (a) of Clause 21.

“**Drawn Portion Fee Rates**” has the meaning given to it in paragraph (a) of Clause 21.

“**Economically Owned**” (and “**Economic Ownership**”) by one or more Covered Entities, means as regards to an asset or exposure, if those Covered Entities Own the asset or exposure.

“**Effective Date**” has the meaning given to it in Clause 3.

“**Employee**” means any employee, director, board member, secondee or contract worker.

“**Enforcement Costs**” means any Costs and Expenses incurred in connection with Permitted Litigation.

“**Exchange Date**” means, with respect to an amount to be converted into the Base Currency at the Applicable Exchange Rate, the date on which such Applicable Exchange Rate is being fixed.

“**Excluded Entity**” means any legal entity (a) with its registered offices, its seat, its principal place of business or with any permanent establishment in an Excluded Jurisdiction or (b) which does not own all material Authorisations required to enable it lawfully to manage, market, distribute, sell, transfer, assign or otherwise dispose of the Covered Assets Owned by it.

“**Excluded Jurisdiction**” means any Sanctioned Country.

“**Excluded Losses and Costs**” means any loss, including, without limitation, any Costs and Expenses related to:

- (a) Operational Costs (management, operational, and other similar expenses, including HR restructuring);
- (b) costs of funding, including interest expenses incurred, allocated or dedicated to fund Covered Assets;
- (c) FX structural risk, unless it relates to Hedging Costs of FX Specific Risk Portfolio Hedges;
- (d) interest rate risks resulting from asset liability mismatch of any loan portfolios; and
- (e) any positions listed in **Schedule 6** (*Additional Excluded Losses and Costs*).

“**Excluded Person**” means any Sanctioned Person.

“**Expert**” means any independent, internationally recognised firm of public accountants, international investment bank, law firm, risk advisors or any other appropriate person.

“**Expert Question**” has the meaning given to it in Clause 25.2.

“**FADP**” means the Federal Act on Data Protection (*Bundesgesetz über den Datenschutz*) of 19 June 1992, and, as of 1 September 2023, of 25 September 2020 (SR 235.1).

“**Federal Additional Liquidity Ordinance**” (or “**Ordinance**”) means the Ordinance on Additional Liquidity Assistance Loans and the Granting of Federal Default Guarantees for Liquidity Assistance Loans from the Swiss National Bank to Systemically Important Banks (*Verordnung über zusätzliche Liquiditätshilfe-Darlehen und die Gewährung von Ausfallgarantien des Bundes für die Liquiditätshilfe-Darlehen der Schweizerischen Nationalbank an systemrelevante Banken*) of 16 March 2023 (SR 221.301).

“**Federal Administrative Court**” means the Federal Administrative Court (*Bundesverwaltungsgericht*) of Switzerland.

“**Federal Finance Administration**” means the federal finance administration (*Eidgenössische Finanzverwaltung*) of the Swiss government.

“**FINMA**” means the Swiss Financial Market Supervisory Authority (*Eidgenössische Finanzmarkt-aufsicht*).

“**FINMA Confirmation**” has the meaning given to it in paragraph (b) of Clause 9.

“**FINMASA**” means the Federal Act on the Swiss Financial Market Supervisory Authority (*Bundesgesetz über die Eidgenössische Finanzmarktaufsicht*) of 22 June 2007 (SR 956.1).

“**FinMIA**” means the Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (*Bundesgesetz über die Finanzmarktinfrastrukturen und das Marktverhalten im Effekten- und Derivatehandel*) of 19 June 2015 (SR 958.1).

“**Full Termination Notice**” has the meaning given to it in Clause 22.3.

“**FX Specific Risk Portfolio Hedges**” means Hedges covering the currency risk of individual Covered Assets entered into, and maintained, in accordance with paragraph (c) of Clause 10.2.

“**Good Faith Statements**” has the meaning given to it in paragraph (e) of Clause 14.

“**Good Industry Practice**” means the level of skill, care, diligence, prudence, foresight, expertise and experience consistent with the standards which would ordinarily be adhered to by a prudent banking institution in the ordinary course of its business, taking account of (i) applicable corporate governance principles, (ii) any published guidance or recommendations (including guidance or recommendations from any Authority) relating to good industry practice in the banking and financial sectors as may be published from time to time, (iii) other guidelines, recommendations, methods, practices or procedures which would be adopted or complied with from time to time by a prudent banking institution in the ordinary course of its business, and (iv) the nature of any asset concerned and its strategic importance (e.g. with respect to the Covered Assets, the fact that they are non-strategic to UBS).

“**Governance and Organisational Provisions**” means the provisions regarding governance and organisation set forth in **Part VI** (*Governance and Organisational Requirements*).

“**Governance Policy**” means a written statement enacted as such in accordance with this Agreement.

“**Government Entity**” means:

- (a) the Federal Council, any department, non-departmental public body, governmental unit, Authority or agency of the Confederation (including, without limitation, FINMA);
- (b) any of the Confederation’s federal councilors (*Bundesräte*);
- (c) any corporate body established by federal statute some or all of the members of which are appointed by the Confederation or a Government Entity pursuant to (a) or (b); and
- (d) any other entity or person directly or indirectly owned by any of the foregoing.

“**Gross Realisation Proceeds**” has the meaning given to it in paragraph (a) of Clause 7.3.

“**Group**” or “**Group Companies**” means UBS and each of its Subsidiaries, from time to time, including, after the Closing of the Merger, CS Group, and “**Group Company**” means any of them.

“**Guaranteed Amount**” has the meaning as defined in Clause 9.1.

“**Hedges**” has the meaning given to it in paragraph (c) of Clause 10.2.

“**Hedging Benefits**” means any benefits received by the Group and to be calculated as Hedging Benefits in accordance with paragraph (c) of Clause 10.2 in each case on or after the Valuation Date.

“**Hedging Costs**” means Costs and Expenses paid by the Group and to be calculated as Hedging Costs in accordance with paragraph (c) of Clause 10.2 in each case on or after the Valuation Date.

“**Hedging Policy**” has the meaning given to it in paragraph (c) of Clause 10.2.

“**Holding Company**” means, in relation to a person, any other person whose Subsidiary it is.

“**Information**” means all information of whatever nature and in whatever form, including in writing, orally, electronically and in a visual or machine-readable medium (including CD-ROM, USB Stick or shared folders, magnetic or digital form) and, in relation to any obligation on any person to provide information pursuant to the Loss Protection Guarantee and any other LPG Documents, shall be limited to such information that is within the control of that person; for these purposes information shall be deemed to be within a person’s control if:

- (a) it is within the possession of that person or any of its Affiliates;
- (b) that person or any of its Affiliates has a right to possession of it; or
- (c) that person or any of its Affiliates has a right to inspect or take copies of it.

“**Initial CS Difference**” means, in respect of any Covered Asset, the amount of any absolute difference between the CS Book Value and the Initial Valuation.

“**Initial Valuation**” has the meaning given to it in Clause 5.1.

“**Level 1 Trigger Event**” means that the pro forma Shared Loss Amount of a Portfolio is in excess of 75% of the Loss Budget of that Portfolio or, if no Loss Budget has been agreed upon for such Portfolio, the pro forma Shared Loss Amount of a Portfolio is in excess of 3% of the aggregate amount of all Initial Valuations of that Portfolio.

“**Level 2 Trigger Event**” means that the pro forma Shared Loss Amount of a Portfolio is in excess of 100% of the Loss Budget of that Portfolio or, if no Loss Budget has been agreed upon for such Portfolio, the pro forma Shared Loss Amount of a Portfolio is in excess of 5% of the aggregate amount of all Initial Valuations of that Portfolio.

“**Level 3 Trigger Event**” means that the pro forma Shared Loss Amount of all Covered Assets is in excess of 75 % of the Loss Budget for all Covered Assets or, if no Loss Budget has been agreed upon for all Covered Assets, the pro forma Shared Loss Amount of all Covered Assets is in excess of 3% of the aggregate amount of all Initial Valuations of all Covered Assets.

“**Level 4 Trigger Event**” means that the pro forma Shared Loss Amount of all Covered Assets is in excess of 100% of the Loss Budget for all Covered Assets or, if no Loss Budget has been agreed upon for all Covered Assets, the pro forma Shared Loss Amount of all Covered Assets is in excess of 5% of the aggregate amount of all Initial Valuations of all Covered Assets.

“**Litigation**” means any litigation, arbitration or administrative proceedings or investigations of, or before, disciplinary or enforcement proceedings by, any court, arbitral body or agency.

“**Loss Budget**” means the budgeted maximum aggregate Net Loss Amount assigned to a Portfolio and all Covered Assets as agreed by the Parties in accordance with the procedures set out in Clause 6.

“**Loss Protection Guarantee**” means the loss protection guarantee granted in accordance with this Agreement.

“**LPG Document(s)**” means this Agreement, any document produced on the basis of it and any other document designated in writing as such by the Parties.

“**LPG Document Inaccuracy**” has the meaning given to it in Clause 39.

“**LPG Principles**” has the meaning given to it in Clause 2.2.

“**Maintenance Fee**” has the meaning given to it in paragraph (a) of Clause 21.

“**Major Transaction**” means, subject to paragraph (b) of Clause 7.4, a transaction in respect of a Covered Asset where the Net Loss Amount is equal or higher than the higher of (i) (x) CHF 150,000,000 or (y), if lower than CHF 150,000,000, 5 per cent. of the difference of CHF 5,000,000,000 minus the aggregate Net Loss Amounts as of the end of the previous quarter and (ii) CHF 50,000,000.

“**Management and Administration**” means, in respect of a Covered Asset, any and all conduct (including any decision whether or not to undertake any particular conduct) relating, whether directly or indirectly, to that Covered Asset, including, without limitation:

- (a) the sale, transfer, assignment or other disposal of that Covered Asset;
- (b) the creation or acquisition of an asset or exposure;
- (c) the amendment, replacement or termination of that Covered Asset, including any amendment to any Underlying Documentation;
- (d) any transaction in relation to that Covered Asset (other than a transaction set forth in paragraph (a) or (b)), including the creation of any Security in favour of a party other than another Group Company, the granting of any guarantee, indemnity or collateral by any Covered Entity for the benefit of any person which is not a Group Company for a Covered Asset, the creation of any trust, the conferring or any interest or participation right, the entering into of any agreement in respect of votes or the right to receive dividends or any other return of value, the renunciation or assignment of any right to subscribe for or receive an asset or exposure or any legal or beneficial interest in an asset or exposure, the entering into of any arrangement having the effect of reducing or mitigating a person’s (which is not a Group Company) legal, beneficial or economic interest in a Covered Asset;
- (e) any conduct which will result in an increased commitment, lending or exposure to a Counterparty (or to an Affiliate of a Counterparty), or any determination as to whether or not (or how) such increased commitment, lending or exposure should be created, including through the provision of or making available additional finance;
- (f) any conduct relating to or constituting a recovery (including the taking of, or refraining from taking, any enforcement action);

- (g) the incurrence of, or commitment to incur, any Realisation Expenses or Enforcement Costs; and
- (h) the exercise of any voting or other rights, but in any case excluding any conduct which consists of delivering any notification, report or Information to the Confederation,

and “**Manage and Administer**” and “**Managed and Administered**” shall be construed accordingly.

“**Material Transaction**” means, subject to paragraph (b) of Clause 7.4, a transaction in respect of a Covered Asset, where the Net Loss Amount amounts to at least CHF 30,000,000.

“**Merged Group**” means UBS and each of its Subsidiaries, from time to time, after the Closing of the Merger, i.e. upon inclusion of the CS Group, and “**Merged Group Company**” means any of them.

“**Merger**” has the meaning given to it in preamble (2).

“**Modification Notice**” has the meaning given to it in paragraph (b) of Clause 39.

“**Monitoring and Reporting Provisions**” means any relevant monitoring and reporting requirement as set out in Part IV (*Monitoring and Reporting*) of this Agreement.

“**Monitors**” has the meaning given to it in paragraph (a) of Clause 16.

“**NCL Unit**” means the non-core and legacy unit of UBS, being the unit within UBS responsible for the implementation, administration and compliance with UBS’ obligations under the LPG Documents to be set up as described and set forth in Clause 17.1.

“**NCL Unit Management Team**” has the meaning given to it in Clause 17.2.

“**Net Loss Amount**” has the meaning given to it in paragraph (a)(ii) of Clause 8.1.

“**Net Realisation Proceeds**” has the meaning given to it in paragraph (c) of Clause 7.3

“**Non-Covered Asset(s)**” has the meaning given to it in paragraph (a) of Clause 4.1.2.

“**Notice of Dispute**” has the meaning given to it in Clause 25.1.

“**Notification Report**” means any notice required to be delivered to the Confederation according to Clause 14.4.

“**Operational Cost**” means any cost incurred by the management and/or operation of the Covered Assets and/or of the NCL Unit, including, without limitation, (a) any salaries or other compensation and related benefits of any Employee (including any bonus, commission or severance arrangements or training, payroll taxes, human resources restructuring or travel- or relocation-related expenses), (b) the cost of office space, the rental of and maintenance of furniture and equipment and expenses for data processing (including the purchase or enhancement of data processing systems), (c) any other overhead or general and administrative expenses and (d) any cost or charges for any services in the sense of paragraphs (a) to (c) provided or benefits in the sense of paragraphs (a) to (c) granted by any Group Company to the NCL Unit.

“**Operational Losses**” means any operational losses incurred by the management and/or operation of the Covered Assets and/or the NCL Unit, including, without limitation, losses in connection with operational process errors, IT losses, fraud, HR issues or any other category covered in operational risk.

“**Other Currency**” means any currency other than the Base Currency.

“**Ownership**” means:

- (a) with respect to an asset, legal and beneficial ownership of that asset; and
- (b) with respect to an exposure (including any undrawn availability of funds, whether committed or uncommitted):
 - (i) having the contractual liability in respect of that exposure and the right to legal and beneficial ownership of an asset resulting from or in respect of the discharge of, or obligation to discharge, the liability represented by that exposure; or
 - (ii) (in the case of an overdraft) having the right to legal and beneficial ownership of an asset resulting from the overdraft being drawn,

provided that where an entity does not have full beneficial ownership of any such asset or exposure (as relevant) as of any date, any such asset or exposure shall only be Owned to the extent of any such beneficial ownership which it does hold, and “**Own**” / “**Owned**” shall be construed accordingly, provided that, for the purpose of this definition a person shall be deemed to be the legal owner of an asset if that asset is owned in dematerialised form through a clearing system or a custodian (excluding any such holding through a prime brokerage account or analogous arrangement) on a basis which would, at the time of determination for the purpose of paragraph (a), be regarded in the applicable market as conventional with respect to the ownership of that asset type.

“**Partial Termination Assets**” has the meaning given to it in paragraph (a) Clause 22.2.

“**Partial Termination Notice**” has the meaning given to it in Clause 22.2.

“**Parties**” has the meaning given to it in the preamble of this Agreement.

“**Permitted Litigation**” means any Litigation initiated by a Group Company for the purposes of the direct enforcement, recovery or protection of:

- (a) any rights under any Underlying Documentation of a Covered Asset; and/or
- (b) any rights under any Realisation Documentation of a Covered Asset.

“**Permitted Realisation**” has the meaning given to it in paragraph (b) of Clause 7.2.

“**Personal Data**” has the meaning given to “personal data” in the FADP.

“**Plan Proposal**” has the meaning given to it in paragraph (a) of Clause 6.

“**Policy**” means the Asset Management Framework, the Governance Policy, the Hedging Policy and any other policy adopted in accordance with Clause 17.5.

“**Portfolio**” has the meaning given to it in Clause 4.3.

“**Portfolio Hedge**” means any assets, agreements, instruments and arrangements that may exist as of the Signing Date or else be entered into by a Covered Entity or any other Group Company from time to time by or in respect of Covered Assets in accordance with paragraph (c) of Clause 10.2, which constitute hedging arrangements in respect of any relevant market or credit risk (including in particular any FX or rates risk) in respect of Covered Assets, including without limitation any credit default swap, FX swap, or interest rate swap, which may be entered into in respect of a portfolio of assets that includes Covered Assets.

“**Portfolio Schedule**” has the meaning given to it in Clause 4.3.

“**Quarter Date**” means each of 31 March, 30 June, 30 September and 31 December.

“**Quarterly Statement**” has the meaning given to it in Clause 14.2.4.

“**Quarterly Statement Data**” means the Information contained in the Quarterly Statement Data Fields, comprising certain terms or features of, or matters pertaining to, certain Covered Assets, together with any other Information designated in this Agreement or by the Parties as Quarterly Statement Data.

“**Quarterly Statement Data Fields**” means the data fields defined by the Parties after the Closing Date which shall include all information reasonably required by the Confederation to monitor compliance with the terms of the LPG Documents.

“**Quarterly Statement Date**” has the meaning given to it in Clause 14.2.1.

“**Quarterly Statement Period**” has the meaning given to it in Clause 14.2.2.

“**Realisation**” means the sale, transfer, assignment or other disposal of a Covered Asset as well as recovery (if any) at maturity or in an insolvency or the liquidation of a Covered Asset or the satisfaction of all terms and obligations of such Covered Asset or other winding-up in full of such Covered Asset, in each case taking place after the Valuation Date. “**Realise**” and “**Realised**” shall be construed accordingly.

“**Realisation Date**” means the date on which the Realisation takes place.

“**Realisation Documentation**” means all of the agreements and other documentation providing for the terms and conditions of the Realisation, including, without limitation, any sale and purchase agreement.

“**Realisation Expenses**” means any Costs and Expenses, including fees for any external advisors, as well as any Taxes, VAT or Stamp Duty incurred in connection with any Realisation to the extent these are directly attributable to the relevant Covered Asset.

“**Receiving Party**” has the meaning given to it in paragraph (a) of Clause 32.1.1.

“**Residual Request**” has the meaning given to it in paragraph (b) of Clause 7.7.

“**Relevant Personal Data**” has the meaning given to it in paragraph (a) of Clause 33.

“**Relevant Persons**” has the meaning given to it in paragraph (b) of Clause 33.

“**Residual Positions**” has the meaning given to it in paragraph (a) of Clause 7.7.

“**Reports**” means any Quarterly Statements, Quarterly Statement Data Fields, UBS Standard Reports, Requested Reports and Notifications Reports, in each case including any attachments thereto, and a “**Report**” means any of them.

“**Representations**” means the representations and warranties set out in Clause 20 and “**Representation**” shall be construed accordingly.

“**Representatives**” means:

- (a) with respect to any person other than the Confederation: directors, officers, Employees, agents, professional advisers, contractors and delegates; and
- (b) with respect to the Confederation: any person listed in article 1 para. 1 of the Federal Act on the Liability of the Federal Government as well as its Civil Servants (*Verantwortlichkeitsgesetz*) dated 14 March 1958 (SR 170.32).

“**Requested Report**” means any Information required to be produced and delivered to the Confederation pursuant to paragraph (a) or (b) of Clause 14.1.

“**Restricted Conduct**” has the meaning given to it in paragraph (b) of Clause 12.

“**Sanctioned Country**” means a country or territory which is, or whose government is, the subject or target of country-wide or territory wide Sanctions (which, as at the Signing Date, *inter alia*, include the Crimea region, the non-government controlled areas of Ukraine in the oblasts of Donetsk, Luhansk, Zaporizhzhia and Kherson, Cuba, Iran, North Korea, Sudan, South Sudan and Syria).

“**Sanctioned Person**” means any person, entity, or any other party, including, without limitation, official or de facto authorities (i) located, domiciled, resident, incorporated or operating in a Sanctioned Country, or (ii) subject to any sanctions lists administered by any Sanctions Authority, or (iii) owned or controlled by a person, entity or any other party as defined in paragraphs (i) and (ii),

“**Sanctions**” means any trade, economic or financial sanction laws, regulations, embargoes, or restrictive measures administered, enacted or enforced by a Sanctions Authority.

“**Sanctions Authority**” means Switzerland, the Security Council of the United Nations, the European Union, the member states of the European Union, the United States of America, the United Kingdom, Japan and the governments and official institutions or agencies of any of these.

“**Schedule**” means any schedule in this Agreement.

“**Security**” means a mortgage, charge, pledge, lien or other security interest securing any obligation of any person or any other agreement or arrangement having a similar effect.

“**Set-up Fee**” has the meaning given to it in paragraph (a) of Clause 21.

“**SFAO**” means Swiss Federal Audit Office (*Eidgenössische Finanzkontrolle*).

“**Shared Loss Amount**” has the meaning given to it in paragraph (c) of Clause 8.1.

“**Shared Loss Discount**” has the meaning given to it in paragraph (c) of Clause 7.6.

“**Signing Date**” means the date of this Agreement.

“**SNB**” means the Swiss National Bank.

“**SOC**” has the meaning given to it in paragraph (c) of Clause 17.3.

“**Specified Action**” means any action or conduct set forth in paragraphs (b), (c), (d) or (e) of the definition of “Management and Administration” other than an action or conduct which relates to a transaction with another Group Company or which is not material to the economic value of the Covered Assets.

“**Stamp Duty**” means any stamp documentary, registration or capital duty or tax (including stamp duty, stamp duty reserve tax and any other similar duty or similar tax) and any fine, penalty, charge, costs or interest relating thereto, and “**Stamp Duties**” shall be construed accordingly.

“**Static Accounting Standards**” means the Accounting Standards as applied for the consolidated financial statements as per 31 December 2022.

“**SubA**” means the Federal Act on Financial Assistance and Compensation (*Bundesgesetz über Finanzhilfen und Abgeltungen*) of 5 October 1990 (SR 616.1).

“**Subsidiary**” means, in relation to any company or corporation, a company or corporation:

- (a) which is controlled, directly or indirectly, by the first mentioned company or corporation;
- (b) more than half the issued share capital of which is beneficially owned, directly or indirectly, by the first mentioned company or corporation;
- (c) which is a Subsidiary of another Subsidiary of the first mentioned company or corporation; or
- (d) which must be consolidated in Group wide financial statements pursuant to the Accounting Standards,

and for this purpose, a company or corporation shall be treated as being controlled by another if that other company or corporation is able to direct its affairs and/or to control the composition of its board of directors or equivalent body.

“**Swiss Code of Civil Procedure**” means the Swiss Civil Procedure Code (Civil Procedure Code) (*Schweizerische Zivilprozessordnung, ZPO*) of 19 December 2008 (SR 272).

“**Swiss Merger Act**” means the Federal Act on Merger, Demerger and Transfer of Assets (Merger Act) (*Bundesgesetz über Fusion, Spaltung, Umwandlung und Vermögensübertragung (Fusionsgesetz, FusG)*) of 3 October 2003 (SR 221.301).

“**Tax**” means any tax and any levy, impost, duty or other charge in the nature of taxation (whether of Switzerland or elsewhere in the world) and any fine, penalty, charge, cost or interest relating to any of the foregoing.

“**Termination Event**” has the meaning given to it in Clause 22.1.

“Transaction Costs” means documented external cost and external expenses, including third party advisory and audit fees, reasonably incurred by the relevant person in connection with the LPG Documents and the Loss Protection Guarantee, including, without limitation:

- (a) the due diligence (financial, commercial, legal, etc.) and the evaluation, assessment and analysis of any parameters relating to the Loss Protection Guarantee;
- (b) the negotiation, finalizing and execution of the LPG Documents and the transactions contemplated thereby;
- (c) monitoring, valuation, governance, maintenance, realization, confirmatory and supervisory actions or tasks relating to the Loss Protection Guarantee or any LPG Document; and
- (d) any other actions relating to the Loss Protection Guarantee or any LPG Document taken before, during or, in relation to continuing obligations under Clause 14.7 only, after the lifetime of the Loss Protection Guarantee.

“UBS” has the meaning given to it in preamble (B).

“UBS Confidential Information” means (i) all Information which the Confederation or any of its Representatives receives or shall have received from a Group Company or any of its Representatives, or from any third party who has received the Information from a Group Company or any of its Representatives, in connection with this Agreement (including all such Information which the Confederation or any of its Representatives prepare which contains or reflects or is generated from such Information) and (ii) all Information relating to or arising from negotiations, discussions and correspondence in connection with the Agreement between (x) the Confederation or any of its Representatives and (y) any Group Company or any of its Representatives, in connection with this Agreement, but excluding in each case any Excluded Information.

“UBS Standard Report” means any standardised, UBS internal reports and report formats containing Information relating to the Loss Protection Guarantee.

“Underlying Documentation” means all of the agreements and other documentation providing for the terms and conditions of a Covered Asset.

“US\$” and **“U.S. Dollars”** denote the lawful currency of the United States of America.

“Valuation Date” means 31 May 2023.

“VAT” means value added tax and any tax similar or equivalent to value added tax and other taxes related to sales and the rendering of services.

“Virtual Data Room” means the virtual data room established by or on behalf of CSG, comprising the information relating to the Covered Assets and the Non-Covered Assets, or any replacement site set up by or on behalf of CSG or UBS which satisfies such requirement.

“Voluntary Termination Notice” has the meaning given to it in Clause 22.4.

“Wholly Owned” means, direct or indirect, ownership of the entire equity capital and voting rights of a legal entity. For the purpose of defining whether or not a legal entity is Wholly Owned in accordance with this definition, any non-material equity interests or similar instruments that are owned by Employees or directors of such legal entity in order to comply with Applicable Law are not taken into account.

SCHEDULE 2
Conditions Precedent

Part I: Documents and other evidence to be provided by UBS

1. Corporate Documents

- (a) A notarised copy of the up-to-date excerpt from the commercial register (*Handelsregisterauszug*) and a notarised copy of the up-to-date articles of association (*Statuten*) of UBS.
- (b) A copy of a protocol signed by the Chairman of UBS and the minutes keeper confirming that the board of directors of UBS has duly passed resolutions:
 - (i) approving the terms of, and the transactions contemplated by, the LPG Documents and resolving that it executes, and performs its obligations under, the LPG Documents to which it is a party; and
 - (ii) authorising a specified person or persons to execute the LPG Documents to which it is a party on its behalf and to sign and/or dispatch all documents and notices to be signed and/or dispatched by it under or in connection with the LPG Documents to which it is a party.

2. LPG Documents

This Agreement duly executed by UBS.

3. Other Documents and Evidence

- (a) A certificate signed by an authorised representative of UBS confirming that all Authorisations required for UBS to enter into and perform its obligations under this Agreement have been obtained.
- (b) Evidence that the Closing of the Merger has occurred in the form of a copy of an excerpt from (i) the journal of the commercial register (*Tagebuchauszug*) prior to publication in the Swiss Official Gazette of Commerce or (ii) the commercial register (*Handelsregisterauszug*) prior to publication in the Swiss Official Gazette of Commerce.

Part II: Documents and other evidence to be provided by the Confederation

Evidence that the persons signing this Agreement on behalf of the Confederation have the power and authority to legally bind the Confederation.

SIGNATURES

The Swiss Confederation
represented by the Federal Department of Finance

Name: Karin Keller-Sutter
Title: Federal Councillor

UBS Group AG

Name:
Title:

Name:
Title:



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P.O. Box CH-4002
Basel

Zurich, 09 June 2023

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” in the Amendment No. 4 to the Registration Statement on Form F-4 (No. 333-271453), and the related prospectus of UBS Group AG for the merger between UBS Group AG and Credit Suisse Group AG and to the inclusion herein of our reports dated 3 March 2023, with respect to the consolidated financial statements of UBS Group AG and UBS AG, and the effectiveness of internal control over financial reporting of UBS Group AG and UBS AG, included in its Annual Report (Form 20-F) for the year ended 31 December 2022, filed with the Securities and Exchange Commission.

/s/ Ernst & Young Ltd
Ernst & Young Ltd

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the use in this Pre-Effective Amendment No. 4 to the Registration Statement on Form F-4 of UBS Group AG of our report dated March 14, 2023, relating to the financial statements of Credit Suisse Group AG and its subsidiaries (the “Group”) and the Group’s effectiveness of internal control over financial reporting, which appears in Credit Suisse Group AG’s and Credit Suisse AG’s Annual Report on Form 20-F for the year ended December 31, 2022. We also consent to the reference to us under the heading “Experts” in such Registration Statement.

/s/ PricewaterhouseCoopers AG

Zurich, Switzerland

June 9, 2023

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the use in this Pre-Effective Amendment No. 4 to the Registration Statement on Form F-4 of UBS Group AG of our report dated March 14, 2023, relating to the financial statements of Credit Suisse AG and its subsidiaries (the “Bank”) and the Bank’s effectiveness of internal control over financial reporting, which appears in Credit Suisse Group AG’s and Credit Suisse AG’s Annual Report on Form 20-F for the year ended December 31, 2022. We also consent to the reference to us under the heading “Experts” in such Registration Statement.

/s/ PricewaterhouseCoopers AG

Zurich, Switzerland

June 9, 2023